SCIENTIFIC PRODUCTION

ACL-PUBLICATIONS

January 2008 – February 2011.
(in ISI WEB of knowledge except 6 colored in pink)

AXE 1 Strongly Correlated Quantum Materials and Magnetism.
(when belonging to 2 axes: title in the first color and number in the 2nd)

AXE 2 Materials and Nanosciences - Fundamental Studies and Applications

AXE 3 Soft Matter and Biophysics

AXE 4 other publications

AXE	TITRE	REVUE	VOL	N°	PP	ISSN	AUTEURS
	2008						
1	Nature of the magnetic order in Ca3Co2O6	**Physical Review Letters**	101	9	97207	0031 9007	Agrestini S; Chapon L C; Daoud-Aladin; A. Schefer J; **Gukasov A;** Mazzoli C; Lees M. R; Petrenko O. A.
2	Magnetic and lattice excitations in intermediate-valence EuCu2Si2	**Physica B-Condensed Matter**	403	5	864-865	0921 4526	Alekseev P.A; **Mignot J-M;** Nemkovski K.S; Nefeodova E.V; Lazukov V.N; Karpunin D. Yu. Bewley RI. Gribaov Alexandr V.
3	Structure Magnetic Properties Polarized Neutron Diffraction and Theoretical Study of a Copper(II) Cubane	**Chemistry-a European Journal**	14	31	9540-9548	0947 6539	Aronica C; Chumakov Y; Jeanneau E; Luneau D; Neugebauer P; Barra A-L; **Gillon B**; Goujon A; Cousson A; Tercero J; Ruiz E,
4	Crystallographic magnetic and ferroelectric structures of bulklike BiFeO3 thin films	**Applied Physics Letters**	93	7	72901	0003 6951	Bea H. Bibes M. Zhu X. H. Fusil S. Bouzehouane K. **Petit S**. Kreisel J. Barthelemy A.
5	Spin fluctuations in the magnetically ordered phase of frustrated pyrochlore systems	**Magnetic Materials-Aip Conference Proceedings**	1003		274-279	0094 243X	Bonville P. **Mirebeau I**. Sanchez J. -P.

6	Field-Induced Spin-Ice-Like Orders in Spin Liquid Tb2Ti2O7	**Physical Review Letters**	101	19	196402	0031 9007	**Cao H. Gukasov A. Mirebeau** I. Bonville P. Dhalenne G.
7	Hydrogenation inducing antiferromagnetism in the heavy-fermion ternary silicide CeRuSi	**Physical Review B**	77	1	14414	1098 0121	Chevalier B. Gaudin E. Tence S. Malaman B. Fernandez J. Rodriguez; **Andre G**. Coqblin B.
8	Orientational ordering in the low-temperature stable phases of deuterated thiophene	**Acta Crystallographica Section B-Structural Science**	64	5	589-595	0108 7681	**Damay F**. Rodriguez-Carvajal J. Andre D. Dunstetter F. Szwarc H.
9	Synthesis under high-oxygen pressure magnetic and structural characterization from neutron powder diffraction data of YGa(1-x)Mn(1+x)O5 (x=0.23): A comparison with YMn2O5	**Materials Research Bulletin**	43	2	197-206	0025 5408	de la Calle C. Alonso J. A. Martinez-Lope M. J. Garcia-Hernandez M. **Andre G.**
10	Diagonal and collinear incommensurate spin structures in underdoped La2-xBaxCuO4	**Physical Review B**	78	9	92507	1098 0121	Dunsiger S. R. Zhao Y. Gaulin B. D. Qiu Y. **Bourges P. Sidis Y**. Copley J. R. D. Kallin A. Mazurek E. M. Dabkowska H. A.
11	Magnetic order in YbMnO3 studied by neutron diffraction and Mossbauer spectroscopy	**Physical Review B**	78	21	214422	1098 0121	Fabreges X. **Mirebeau I**. Bonville P. **Petit S**. Lebras-Jasmin G. Forget A. **Andre G. Pailhes S**.
12	Low-energy magnetic response of the noncentrosymmetric heavy-fermion superconductor CePt3Si studied via inelastic neutron scattering	**Physical Review B**	78	18	184518	1098 0121	Fak B. Raymond S. Braithwaite D. Lapertot G. **Mignot J. -M.**
13	Microarray analysis refines classification of non-medullary thyroid tumours of uncertain malignancy	**Oncogene**	27	15	2228-2236	0950 9232	Fontaine J-F Mirebeau-Prunier D. Franc B. Triau S. Rodien P. Houlgatte R. Malthiery Y. Savagner F.
14	Neutron diffraction study of hexagonal manganite YMnO3 HoMnO3 and ErMnO3 epitaxial films	**Applied Physics Letters**	92	23	232506	0003 6951	Gelard I. Dubourdieu C. **Pailhes S. Petit S**. Simon Ch.
15	Experimental and theoretical study of the spin ground state of the high-spin molecular cluster Ni-II{Ni-II(CH3OH)(3)}(8)(mu-CN)(30){W-V(CN)(3)}(6) center dot 15CH(3)OH by polarised neutron diffraction and density functional theory calculations	**Inorganica Chimica Acta**	361	12-13	3609-3615	0020 1693	**Gillon B;** Larionova J; Ruiz E; Nau Q; Goujon A; Bonadio F; Decurtins S,
16	Magnetic states and spin-glass properties in Bi0.67Ca0.33MnO3: Macroscopic ac measurements and neutron scattering	**Physical Review B**	77	13	134445	1098 0121	Giot M; Pautrat A; **Andre G**; Saurel D; Hervieu M; Rodriguez-Carvajal J,
17	Electronic liquid crystal state in the high-temperature superconductor YBa2Cu3O6.45	**Science**	319	5863	597-600	0036 8075	Hinkov V. Haug D. Fauque B. **Bourges P. Sidis Y**. Ivanov A. Bernhard C. Lin C. T. Keimer B.
18	Neutron powder diffraction and magnetic study of perovskites Pb(Mn1/2Nb1/2)O-3 &Pb(Mn1/4Fe1/4Nb1/2)O-3	**Materials Research Bulletin**	43	11	3074-3087	0025 5408	Ivanov S. A. Nordblad P. Tellgren R. Rundlof H. **Andre G. Bouree F.**

19	Spin-ladder iron oxide: Sr3Fe2O5	**Angewandte Chemie-International Edition**	47	31	5740-5745	1433 7851	Kageyama ; Watanabe T; Tsujimoto Y; Kitada; A; Sumida Y; Kanamori K; Yoshimura K. Hayashi N. Muranaka S; Takano M; Ceretti M ;Paulus W; Ritter C; **Andre G.**
20	Structural anomalies spin transitions and charge disproportionation in LnCoO(3)	**Journal of Applied Physics**	103	7	07B703	0021 8979	Knizek K; Jirak Z; Hejtmanek J; Henry P; **Andre G,**
21	High-pressure-induced spin-liquid phase of multiferroic YMnO3	**Physical Review B**	78	5	54401	1098 0121	Kozlenko D. P. **Mirebeau I**. Park J. -G. **Goncharenko I. N**. Lee S. Park Junghwan Savenko B. N.
22	Electric-field-induced spin flop in BiFeO3 single crystals at room temperature	**Physical Review Letters**	100	22	227602	0031 9007	Lebeugle D. Colson D. Forget A. Viret M. **Bataille A. M. Gukasov A.**
23	Neutron powder diffraction study of the layer organic-inorganic hybrid iron(II) methylphosphonate-hydrate Fe (CD3PO3)(D2O)	**Journal of Solid State Chemistry**	181	11	3005-3009	0022 4596	Leone P; Bellitto C; Bauer E M; Righini G; **Andre G; Bouree F,**
24	Magnetic properties and neutron diffraction study of two manganese sulfosalts: monoclinic MnSb2S4 and benavidesite (MnPb4Sb6S14)	**Physics and Chemistry of Minerals**	35	4	201-206	0342 1791	Leone P; Doussier-Brochard C; **Andre G;** Moelo Y,
25	Unusual magnetic order in the pseudogap region of the superconductor HgBa2CuO4+delta	**Nature**	455	7211	372-375	0028 0836	Li Y. **Baledent V**. Barisic N. Cho Y. Fauque B. **Sidis Y**. Yu G. Zhao X**. Bourges P.** Greven M.
26	Phase separation and magnetoresistivity in Sm0.1Ca0.9-xSrxMnO3	**Physical Review B**	77	5	54402	1098 0121	Martin C. Maignan A. Hervieu M. Hebert S. Kurbakov A**. Andre G. Bouree-Vigneron F**. Broto J. M. Rakoto H. Raquet B.
27	Phonon dispersions of Ni-Mn-Al shape memory alloy	**Materials Science and Engineering A**	481		197-200	0921 5093	Mehaddene T. Neuhaus J. Petry W. Hradil K. **Bourges P**. Hiess A.
28	Interplay of structural instability and lattice dynamics in Ni2MnAl	**Physical Review B**	78	10	104110	1098 0121	Mehaddene T; Neuhaus J; Petry W; Hradil K; **Bourges P**; Hiess A,
29	Magnetic order and multipole interactions in CexPr1-xB6 solid solutions	**Physical Review B**	78	1	14415	1098 0121	**Mignot J. -M. Andre G. Robert J**. Sera M. Iga F.
30	Neutron diffraction study of multipole order in light rare-earth hexaborides	**Pramana-Journal of Physics**	71	4	837-845	0304 4289	**Mignot J-M Robert J**. Sera M. Iga F.
31	Atomic dynamics of i-ScZnMg and its 1/1 approximant phase: Experiment and simulation	**Philosophical Magazine**	88	13-15	2311-2318	1478 6435	Mihalkovic M. Francoual S. Shibata K. De Boissieu M. Baron AQR. **Sidis Y**. Ishimasa T. Lograsso T. Regnault L.P. Gaehler F. Tsutsui S. **Hennion B**. Bastie P. Sato TJ. Takakura H. Currat R. Tsai AP.
32	Investigation of magnetic fluctuations in Tb2Sn2O7 ordered spin ice by high-resolution energy-resolved neutron scattering	**Physical Review B**	78	17	174416	1098 0121	**Mirebeau I**. Mutka H. Bonville P. Apetrei A. Forget A.

33	Structural domain and finite-size effects of the antiferromagnetic S=1/2 honeycomb lattice in InCu2/3V1/3O3	**Physical Review B**	78	2	24420	1098 0121	Moeller A. Loew U. Taetz T. Kriener M. **Andre G. Damay F**. Heyer O. Braden M. Mydosh J. A.
34	Observation of magnetic order in a superconducting YBa2Cu3O6.6 single crystal using polarized neutron scattering	**Physical Review B**	78	2	20506	1098 0121	Mook H. A. **Sidis Y.** Fauque B**. Baledent V. Bourges P**.
35	Strong electron-phonon coupling in Be1-xB2C2: ab initio studies	**European Physical Journal B**	64	2	173-183	1434 6028	**Moudden A. H.**
36	Intralayer and interlayer exchange tuned by magnetic field in the bilayer manganite (La0.4Pr0.6)(1.2)Sr1.8Mn2O7 probed by inelastic neutron scattering	**Physical Review B**	78	6	60406	1098 0121	**Moussa F. Hennion M. Gukasov A. Petit S**. Regnault L. P. Ivanov A. Suryanarayanan R. Apostu M. Revcolevschi A.
37	First neutron measurements on Ce3Pd20Si6	**Physica B-Condensed Matter**	403	5-9	1306-1308	0921 4526	Paschen S. Laurnann S. Prokofieva A. Strydorn A. M. Deen P. P. Stewart J. R. Neumaier K. **Goukassov A. Mignot J. -M**.
38	Spin lattice coupling in multiferroic hexagonal YMnO3	**Pramana-Journal of Physics**	71	4	869-876	0304 4289	**Petit S; Pailhes S; Fabreges X; Hennion M; Moussa F**; Pinsard L; Regnault L-P; Ivanov A,
39	Are optically active three-dimensional oxalate-based ferromagnets good candidates for the observation of x-ray magnetochiral dichroism? A neutron diffraction study	**Journal of Physics-Condensed Matter**	20	13	135214	0953 8984	Pointillart F; Gruselle M; **Andre G**; Train C.
40	Incommensurate spin-density modulation in a copper oxide chain compound with commensurate charge order	**Physical Review Letters**	101	4	47202	0031 9007	Raichle M. Reehuis M. **Andre G**. Capogna L. Sofin M. Jansen M. Keimer B.
41	Magnetic ordering and spin structure in Ca-bearing clinopyroxenes CaM2+(Si Ge)(2)O-6 M = Fe Ni Co Mn	**Journal of Solid State Chemistry**	181	11	3163-3176	0022 4596	Redhammer GJ. Roth G; Treutmann W; Paulus W; **Andre G**; Pietzonka C ;Amthauer G.
42	q-Dependence of the giant bond-stretching phonon anomaly in the stripe compound La1.48Nd0.4Sr0.12CuO4 measured by IXS	**Journal of Physics and Chemistry of Solids**	69	12	3103-3107	0022 3697	Reznik D. Fukuda T. **Lamago D**. Baron A. Q. R. Tsutsui S. Fujita M. Yamada K.
43	Propagation and ghosts in the classical kagome antiferromagnet	**Physical Review Letters**	101	11	117207	0031 9007	**Robert J**. Canals B. Simonet V. Ballou R.
44	Formation of collective spins in frustrated clusters	**Physical Review B**	77	5	54421	1098 0121	**Robert J**. Simonet V. Canals B. Ballou R. Lhotel E. Darie C. Bordet P. Ouladdiaf B. Johnson M. Ollivier J. Braithwaite D. Rakoto H. de Brion S.
45	Magnetic excitations in a cycloidal magnet: the magnon spectrum of multiferroic TbMnO3	**Journal of Physics-Condensed Matter**	20	43	434212	0953 8984	Senff D. Aliouane N. Argyriou D. N. Hiess A. Regnault L. P. Link P. Hradil K. **Sidis Y**. Braden M.
46	Melting of magnetic correlations in charge-orbital ordered La1/2Sr3/2MnO4: Competition of ferromagnetic and antiferromagnetic states	**Physical Review B**	77	18	184413	1098-0121	Senff D. Schumann O. Benomar M. Kriener M. Lorenz T. **Sidis Y**. Habicht K. Link P. Braden M.

47	Hidden magnetic frustration by quantum relaxation in anisotropic nd langasite	**Physical Review Letters**	100	23	237204	0031-9007	Simonet V. Ballou R. **Robert J**. Canals B. Hippert F. Bordet P. Lejay P. Fouquet P. Ollivier J. Braithwaite D.
48	Phase transitions in the H+-conducting perovskite ceramics by the quasi-elastic neutron and high-pressure Raman scattering	**Ionics**	14	3	215-222	0947 7047	Slodczyk A; Colomban P; **Lamago D**; Limage M-H; Romain F; Willemin S; Sala B,
49	Modulated magnetic structures of the antiferromagnetic hydride CeRuSiH	**Journal of Physics-Condensed Matter**	20	25	255239	0953 8984	Tence S. **Andre G**. Gaudin E. Chevalier B.
50	Hidden degrees of freedom in aperiodic materials	**Science**	319	5859	69-71	0036 8075	Toudic B; Garcia P; Odin C; Rabiller P; Ecolivet C ;Collet E ;**Bourges P**; McIntyre G J. Hollingsworth M D. Breczewski Tomasz
51	Synthesis nuclear structure and magnetic properties of LaCr1-yMnyO3 (y=0 0.1 0.2 and 0.3)	**Journal of Alloys and Compounds**	457	1-2	532-540	0925 8388	Tseggai M. Nordblad P. Tellgren R. Rundlof H. **Andre G. Bouree F**.
52	Light-induced phase separation (LIPS) into like-spin phases observed by Laue neutron diffraction on a single crystal of Fe(ptz)(6) (BF4)(2)	**Zeitschrift Fur Kristallographie**	223	4-5	250-258	0044 2968	Varret F; Boukheddaden K; Goujon A ;**Gillon B**; McIntyre G J.
53	Magnetic properties and magnetic structures of synthetic natrochalcites NaM2II(D3O2)(MoO4)(2) M = Co or Ni	**Journal of the American Chemical Society**	130	40	13490-13499	0002 7863	Vilminot S; **Andre G; Bouree-Vigneron** F; Baker P J; Blundell St J.; Kurmoo Mohamedally
54	Easy-axis kagome antiferromagnet: Local-probe study of Nd3Ga5SiO14	**Physical Review Letters**	100	14	147201	0031 9007	Zorko A. Bert F. Mendels P. Bordet P. Lejay P. **Robert J**.
55	On the rolling and annealing texture in a Cu-15Ni-8Sn (wt.%) alloy	**Kovove Materialy-Metallic Materials**	46	6	371-376	0023 432X	Alili B. Bradai D. **Mathon M. H**. Jakani S. Baudin T.
56	DSC structural single crystal and X-ray powder diffraction study of the ammonium sulfate selenate tellurate mixed solid solution	**Journal of Alloys and Compounds**	460	1	147-151	0925 8388	Abdelhedi M. Ktari L. Dammak M. **Cousson A.** Kolsi A. W.
57	Structural and dielectric characterizations of relaxor/ferroelectric superlattice films Pb(Sc1/2Nb1/2)O-3/PbTiO3 fabricated on a single-lattice scale	**Journal of Applied Physics**	103	9	94106	0021 8979	Asanuma S; Uesu Yoshiaki; Malibert C; **Kiat J-M**,
58	Dielectric behaviour of a nanograin PMN powders	**Integrated Ferroelectrics**	99		132-139	1058 4587	Banys Juras; Grigalaitis Robertas; Ivanov Maksim; Carreaud Julie **;Kiat J. M.**
59	Mechanisms of exchange bias with multiferroic BiFeO3 epitaxial thin films	**Physical Review Letters**	100	1	17204	0031 9007	Bea H. Bibes M. **Ott F**. Dupe B. Zhu X. -H. **Petit S**. Fusil S. Deranlot C. Bouzehouane K. Barthelemy A.
60	Rubidium localization in single-walled carbon nanotube bundles: Structural study	**Physical Review B**	78	10	104108	1098 0121	Bendiab N. Saitta A. M. Aznar R. Sauvajol J. L. Almairac R. **Mirebeau I. Andre G**.
61	Neutron reflectivity study of the kinetics of polymer-polymer interface formation	**Physical Review E**	78	2	PART 1	1539 3755	Beziel W. Fragneto G. **Cousin F**. Sferrazza M.

62	Influence of interfacial oxygen on single-crystal magnetic tunnel junctions	**European Physical Journal-Applied Physics**	43	3	357-361	1286 0042	Bonell F. **Bataille A. M.** Andrieu S. Tiusan C. Kierren B. Lengaigne G. Lacour D.
63	Insight into silicate-glass corrosion mechanisms	**Nature Materials**	7	12	978-983	1476 1122	Cailleteau C; Angeli F; Devreux F; Gin S ;**Jestin J**; Jollivet P ;Spalla O.
64	Study of the organisation and genesis of randall's plaques by physical techniques of characterisation	**European Urology Supplements**	7	3	317	1569 9056	Carpentier X. Daudon M. Bazin D. **Andre G**. Matzen G. Veron E. Foy E. Mangenot S. Albouy P. A. Traxer O.
65	Variation of residual stresses in drawn copper tubes	**Stress Evaluation in Materials Using Neutrons and Synchrotron Radiation**	571-572		21-26	0255 5476	Carrado A. Duriez D. Barrallier L. Brueck S. Fabre A. Stuhr U. Pirling T. **Klosek V**. Palkowski H.
66	Dielectric evidences of core-shell-like effects in nanosized relaxor PbMg1/3Nb2/3O3	**Applied Physics Letters**	92	24	242902	0003 6951	Carreaud Julie Bogicevic Christine Dkhil Brahim; Kiat J. M.
67	Pressure effects revealed by small angle neutron scattering on block copolymer gels	**Langmuir**	24	15	8319-8324	0743 7463	Castelletto V. Newby G. E. Hamley I. W. **Noirez L. Baroni P.**
68	Silica nanoparticles at interfaces modulated by amphiphilic polymer and surfactant	**Langmuir**	24	14	7346-7353	0743 7463	De Rezende Camila Alves; **Lee Lay-Theng** ;Galembeck Fernando
69	Modifications in solvent clusters embedded along the fibers of a cellulose polymer network cause paper degradation	**Physical Review E**	77	4	41801	1539 3755	De Spirito M; Missori M; Papi M; Maulucci G; **Teixeira J**; Castellano C; Arcovito G,
70	Nonlocal protons and deuterons opposed to disorder: a single-crystal neutron diffraction study of KH0.76D0.24CO3 and a theoretical framework	**Journal of Physics-Condensed Matter**	20	25	252202	0953 8984	Fillaux F **;Cousson A;**
71	Where are Protons and Deuterons in KHpD1-pCO3? A Neutron Diffraction Study	**Zeitschrift Fur Physikalische Chemie-International Journal of Research in Physical Chemistry & Chemical Physics**	222	8-9	1279-1290	0942 9352	Fillaux F **;Cousson A;**
72	A neutron diffraction study of macroscopically entangled proton states in the high temperature phase of the KHCO3 crystal at 340 K	**Journal of Physics-Condensed Matter**	20	1	15225	0953 8984	Fillaux F; **Cousson A**; Gutmann M J.
73	A neutron scattering study of strong-symmetric hydrogen bonds in potassium and cesium hydrogen bistrifluoroacetates: Determination of the crystal structures and of the single-well potentials for protons	**Journal of Chemical Physics**	128	20	204502	0021 9606	Fillaux F;**Cousson A**; Archilla J F. R;. Tomkinson J
74	Universal scattering behavior of coassembled nanoparticle-polymer clusters	**Physical Review E**	78	4	40401	1539 3755	Fresnais J. Berret J. -F. Qi L. Chapel J. -P. Castaing J. -C. Sandre O. Frka-Petesic B. Perzynski R. Oberdisse J. **Cousin F**.

75	Structural and magnetocaloric properties of the new ternary silicides Gd6M5/3Si3 with M = Co and Ni	**Chemistry of Materials**	20	9	2972-2979	0897 4756	Gaudin E; **Tence S**; Weill F; Fernandez J Rodriguez; Chevalier B,
76	First-principles calculations of quantum paraelectric La1/2Na1/2TiO3 in the virtual-crystal approximation: Structural and dynamical properties	**Physical Review B**	77	5	52106	1098 0121	Geneste G; **Kiat J-M**; Malibert C,
77	Structural transformations of Muscovite at high temperature by X-ray and neutron diffraction	**Applied Clay Science**	38	4	259-267	0169 1317	Gridi-Bennadji F. **Beneu B**. Laval J. P. Blanchart P.
78	Rich polymorphism of a rod-like liquid crystal (8CB) confined in two types of unidirectional nanopores	**European Physical Journal E**	26	3	261-273	1292 8941	Guegan R. Morineau D. Lefort R. Beziel W. Guendouz M. **Noirez L**. Henschel A. Huber P.
79	Orientational ordering in the nematic phase of a polyethylene glycol-peptide conjugate in aqueous solution	**Physical Review E**	77	6	62901	1539 3755	Hamley I W. Krysmann M J. Newby G E. Castelletto V; **Noirez L.**
80	Temperature evolution of lattice strains in relaxor PbSc1/2Nb1/2O3 thin films	**Applied Physics Letters**	92	5	52908	0003 6951	Janolin P-E; **Kiat J-M**; Malibert C ;Asanuma S; Uesu Y,
81	Structural details of cellulose nanocrystals/polyelectrolytes multilayers probed by neutron reflectivity and AFM	**Langmuir**	24	7	3452-3458	0743 7463	Jean B; Dubreuil F ;Heux L **;Cousin F**
82	Anisotropic reinforcement of nanocomposites tuned by magnetic orientation of the filler network	**Advanced Materials**	20	13	2533-+	0935 9648	**Jestin J; Cousin F;** Dubois I;Menager C; Schweins R; Oberdisse J; **Boue F.**
83	Effect of grain size on the transition between ferroelectric and relaxor states in 0.8Pb(Mg1/3Nb2/3)O-3-0.2PbTiO(3) ceramics	**Physical Review B**	78	9	94103	1098 0121	Jimenez R. Amorin H. Ricote J. Carreaud J. Kiat J. M. Dkhil B. Holc J. Kosec M. Alguero M.
84	Local order in amorphous Ge2Sb2Te5 and GeSb2Te4	**Physical Review B**	77	3	35202	1098 0121	Jovari P. Kaban I. Steiner J. **Beuneu B**. Schoeps A. Webb M. A.
85	Structure of AsxTe100-x (20 <= x <= 60) glasses investigated with x-ray absorption fine structure x-ray and neutron diffraction and reverse Monte Carlo simulation	**Journal of Chemical Physics**	129	21	214502	0021 9606	Jovari P. Yannopoulos S. N. Kaban I. Kalampounias A. Lishchynskyy I**. Beuneu B**. Kostadinova O. Welter E. Schoeps A.
86	Depth-resolved investigation of the lateral magnetic correlations in a gradient nanocrystalline multilayer	**Physical Review B**	77	10	104435	1098 0121	Kentzinger E; Ruecker U; Toperverg B; **Ott F;** Brueckel T.
87	High pressure study of Pu0.92Am0.08 binary alloy	**Journal of Physics-Condensed Matter**	20	27	300019	0953 8984	**Klosek V.** Griveau J. C. Faure P. Genestier C. Baclet N. Wastin F.
88	In situ analysis of deformation mechanisms of Cu-based fcc materials under uniaxial loading	**Materials Science Forum-Stress Evaluation in Materials Using Neutrons and Synchrotron Radiation**	571-572		89-94	0255 5476	**Klosek V. Mathon M. H.** Aouni M. H. Chiron R. Ji V.
89	Quenching of the magnetic moment of Cr in RCr2Si2 compounds upon filling with carbon	**Physical Review B**	78	10	104419	1098 0121	**Klosek V.** Verniere A. Malaman B. Tobola J. Kaprzyk S.

90	Pressure-induced americium valence fluctuations revealed by electrical resistivity	**EuroPhysics letters**	82	5	100258	0295 5075	Kolomiets A. V. Griveau J. -C. Heathman S. Shick A. B. Wastin F. Faure P. **Klosek V**. Genestier C. Baclet N. Havela L.
91	The solid solution Na-0.39(NH4)(1.61)SO4 center dot Te(OH)(6)	**Acta Crystallographica Section E-**	64	part 3	I18-U30	1600 5368	Ktari L ;Abdelhedi M; Dammak M ;**Cousson A**; Kolsi A
92	On stability of microstructure texture and mechanical properties of copper during ARB processing	**Archives of Metallurgy and Materials**	53	1	179-183	1733 3490	Kusnierz J. Bogucka J. **Mathon M. -H.** Baudin T.
93	Polymorphism in PbBiOXO4 compounds (X = V P As). Part I: Crystal structures of alpha- and beta-PbBiOVO4	**Journal of Solid State Chemistry**	181	9	2260-2267	0022 4596	Labidi O; Roussel P; **Porcher F**; Drache M; Vannier R-N; Wignacourt J-P,
94	Neutron and X-ray diffraction studies of TeCl4 and TeBr4 liquids	**Journal of Non-Crystalline Solids**	354	2-9	259-262	0022 3093	Le Coq D. Bytchkov A. Honkimaeki V. **Beuneu B**. Bychkov E.
22	Electric-field-induced spin flop in BiFeO3 single crystals at room temperature	**Physical Review Letters**	100	22	227602	0031 9007	Lebeugle D. Colson D. Forget A. Viret M. **Bataille A. M. Gukasov A.**
95	Oxidation behaviour of SiC coatings	**Applied Physics a-Materials Science & Processing**	92	2	387-395	0947 8396	Mergia K. Lafatzis D. Moutis N. Speliotis T. Apostolopoulos G. **Cousin F**.
96	EASYREF: Energy analysis system for reflectometers	**Nuclear Instruments & Methods in Physics Research Section A**	584	2-3	401-405	0168 9002	**Ott F**
97	Neutron studies of magnetic oxide thin films	**Journal of Physics-Condensed Matter**	20	26	264009	0953 8984	**Ott F,**
98	REFocus: A new concept for a very high flux neutron reflectometer	**Nuclear Instruments & Methods in Physics Research Section A**	586	1	23-30	0168 9002	**Ott F; Menelle A,**
99	Formation of a new phase of C-60 under the combined action of high-pressure and X-ray radiation	**Fullerenes Nanotubes and Carbon Nanostructures**	16	5-6	486-493	1536 383X	**Papoular R. J**. Le Parc R. Levelut C. Haines J. Davydov V. A. Rakhmanina V. Belova E. E. Chernozatonskii L. A. Allouchi H. Agafonov V.
100	Single-crystal and synchrotron X-ray powder diffraction study of the one-dimensional orthorhombic polymer phase of C-60	**Chemical Physics Letters**	460	1-3	93-99	0009 2614	**Papoular R. J.** Toby B. H. Davydov V. A. Rakhmanina A. V. Dzyabchenko A. Allouchi H. Agafonov V.
101	Reducing the positional modulation of NbO6-octahedra in SrxBa1-xNb2O6 by increasing the barium content: A single crystal neutron diffraction study at ambient temperature for x=0.61 and x=0.34	**Zeitschrift Fur Kristallographie**	223	6	399-407	0044 2968	Schefer J; Schaniel D; Petricek V;Woike T; **Cousson A**; Woehlecke M
102	Magnetic ordering in (110) Eu films in an applied magnetic field	**European Physical Journal B**	63	4	469-478	1434 6028	Soriano S. Dufour C. Dumesnil K. **Mangin Ph**.

103	Oriented magnetic nanowires with high coercivity	**Journal of Materials Chemistry**	18	46	5696-5702	0959 9428	Soumare Y. Piquemal J. -Y. **Maurer T. Ott F. Chaboussant G.** Falqui A. Viau G.
104	Brillouin light scattering observation of the transition from the superparamagnetic to the superferromagnetic state in nanogranular (SiO2)Co films	**Journal of Applied Physics**	104	9	93912	0021 8979	Stashkevich A. A. Roussigne Y. Djemia P. Billet D. Stognij A. I. Novitskii N. N. Wurtz G. A. Zayats A. V. Viau **G. Chaboussant G. Ott F. Gautrot S.** Kostylev M. P. Lutsev L. V. Belotelov V.
105	Characteristic Ordering in Liquid Phase-Change Materials	**Advanced Materials**	20	23	4535-4540	0935 9648	Steimer C; Coulet V; Welnic W; Dieker H; Detemple R ;Bichara C ;**Beuneu B**; Gaspard J-P; Wuttig M,
106	Polarized neutron reflectometry of the influence of Fe/Si Fe/FeSi2 and Au/Fe interfaces on the magnetic properties of epitaxial Fe films	**Journal of Magnetism and Magnetic Materials**	320	24	3378-3383	0304 8853	Stephan R. Mehdaoui A. **Ott F**. Wetzel P.
107	Magnetization depth profile of (Fe/Dy) multilayers	**Journal of Magnetism and Magnetic Materials**	320	21	2650-2659	0304 8853	Tamion A; **Ott F;** Berche P-E; Talbot E; Bordel C; Blavette D.
108	Characteristic Ordering in Liquid Phase-Change Materials	**Advanced Materials**	20	23	4535-4540	0935 9648	Steimer C; Coulet V; Welnic W; Dieker H; Detemple R ;Bichara C ;**Beuneu B**; Gaspard J-P; Wuttig M,
109	Why Do Methylated and Unsubstituted Cyclodextrins Interact So Differently with Sodium Decanoate Micelles in Water?	**Journal of Physical Chemistry B**	112	48	15327-15332	1520 6106	Andrade-Dias C;Lima S; Teixeira-Dias JJ. C.; **Teixeira Jose**
110	Supramolecular organization of heteroxylan-dehydrogenation polymers (synthetic lignin) nanoparticles	**Biomacromolecules**	9	2	487-493	1525 7797	Barakat A; Gaillard C ;**Lairez D** ;Saulnier L ;Chabbert B; Cathala B,
111	Reduced sample recovery in liquid chromatography at critical adsorption point of high molar mass polystyrene	**European Polymer Journal**	44	2	514-522	0014 3057	Beaudoin E. Favier A. Galindo C. **Lapp A.** Petit C. Gigmes D. Marque S. Bertin D.
112	Effects of pressure and confinement on liquid water	**Journal of Physics-Condensed Matter**	20	24	244120	0953 8984	**Bellissent-Funel M-C**
61	Neutron reflectivity study of the kinetics of polymer-polymer interface formation	**Physical Review E**	78	2	PART 1	1539 3755	Beziel W. Fragneto G. **Cousin F**. Sferrazza M.
113	Suppression of aggregation in natural-semiflexible/flexible polyanion mixtures and direct check of the OSF model using SANS	**EuroPhysics letters**	83	4	48002	0295 5075	Bonnet F. Schweins R**. Boue F**. Buhler E.
114	Neutron scattering experiments on aqueous sodium chloride solutions and heavy water. Comparison to molecular dynamics and X-ray results	**Journal of Molecular Structure**	892	1	47-52	0022 2860	Bouazizi S; Hammami F; Nasr S; **Bellissent-Funel M-C,**
115	SBA-15 synthesis: Are there lasting effects of temperature change within the first 10 min of TEOS polymerization?	**Materials Chemistry and Physics**	108	1	73-81	0254 0584	**Brodie-Linder N;** Dosseh G**; Alba-Simonesco C; Audonnet F;** Imperor-Clerc M,

116	Toward a new lower limit for the minimum scattering vector on the very small angle neutron scattering spectrometer at Laboratoire Leon Brillouin	**Journal of Applied Crystallography**	41	part 1	161-166	0021 8898	**Brulet A; Thevenot V; Lairez D;** Lecommandoux S; Agut W; Armes S; P. Du Jianzong; **Desert S.**
117	Relaxation dynamics of lysozyme in solution under pressure: Combining molecular dynamics simulations and quasielastic neutron scattering	**Chemical Physics**	345	3	289-297	0301 0104	Calandrini V. Hamon V. Hinsen K. Calligari P**.** **Bellissent-Funel M. -C.** Kneller G. R.
67	Pressure effects revealed by small angle neutron scattering on block copolymer gels	**Langmuir**	24	15	8319-8324	0743 7463	Castelletto V. Newby G. E. Hamley I. W. **Noirez L. Baroni P.**
118	Aquaporin-2 downregulation in kidney medulla of aging rats is posttranscriptional and is abolished by water deprivation	**American Journal of Physiology-Renal Physiology**	294	6	F1408-F1414	0363 6127	**Combet S.** Gouraud S. Gobin R. Berthonaud V. Geelen G. Corman B. Verbavatz J. -M.
119	Coupling of laser excitation and inelastic neutron scattering: attempt to probe the dynamics of light-induced C-phycocyanin dynamics	**European Biophysics Journal with Biophysics Letters**	37	5	693-700	0175 7571	Combet S; Pieper J; **Coneggo F;Ambroise J-P ;Bellissent-Funel M-C; Zanotti J-M**
120	Competition between Entropy and Electrostatic Interactions in a Binary Colloidal Mixture of Spheres and Platelets	**Langmuir**	24	20	11422-11430	0743 7463	**Cousin F** ;Cabuil V; Grillo I;Levitz P,
121	Phase behavior of polyelectrolyte block copolymers in mixed solvents	**Macromolecules**	41	5	1872-1880	0024 9297	Cristobal G;Berret J-F; Chevallier C; Talingting-Pabalan R ;Joanicot M; Grillo I,
68	Silica nanoparticles at interfaces modulated by amphiphilic polymer and surfactant	**Langmuir**	24	14	7346-7353	0743 7463	De Rezende C A; **Lee L-T;** Galembeck F.
122	Hydrophobic thickness lipid surface area and polar region hydration in monounsaturated diacylphosphatidylcholine bilayers: SANS study of effects of cholesterol and beta-sitosterol in unilamellar vesicles	**Biochimica Et Biophysica Acta-Biomembranes**	1778	11	2627-2632	0005 2736	Gallova J. Uhrikova D. Kucerka N. **Teixeira J**. Balgavy P.
123	Biophysical Study of Thermal Denaturation of Apo-Calmodulin: Dynamics of Native and Unfolded States	**Biophysical Journal**	95	11	5247-5256	0006 3495	Gibrat G; Assairi F; L Blouquit; Y Craescu Constantin T. **Bellissent-Funel M-C**
124	SANS investigation of PDMS hybrid materials prepared by gamma-irradiation	**Nuclear Instruments & Methods in Physics Research Section B**	266	24	5166-5170	0168 583X	Gomes S. R. Margaca F. M. A. Salvado I. M. Miranda Falcao An Almasy L. **Teixeira J.**
125	Finite size and inner structure controlled by electrostatic screening in globular complexes of proteins and polyelectrolytes	**Soft Matter**	4	8	1653-1664	1744 683X	Gummel J; **Boue F**; Clemens D; **Cousin F**
126	Structure transition in PSS/lysozyme complexes: A chain-conformation-driven process as directly seen by small angle neutron scattering	**Macromolecules**	41	8	2898-2907	0024 9297	Gummel J; **Cousin F; Boue F.**

127	Non-linear viscoelastic properties of ordered phases of a poly(ethylene oxide)-poly(propylene oxide) triblock copolymer	**Rheologica Acta**	47	7	765-776	0035 4511	Habas J-P; Pavie E; **Lapp A;** Peyrelasse J,
128	Multiple Lyotropic Polymorphism of a Poly(ethylene glycol)-Peptide Conjugate in Aqueous Solution	**Advanced Materials**	20	23	4394-4397	0935 9648	Hamley I W. Krysmann M J. Castelletto V;**Noirez Laurence**
129	Nematic and Columnar Ordering of a PEG-Peptide Conjugate in Aqueous Solution	**Chemistry-a European Journal**	14	36	11369-11375	0947 6539	Hamley I W; Krysmann M J. Kelarakis A; Castelletto V**;Noirez L;** Hule Rohan A. Pochan DJ.
130	Neutron Reflectivity and Computer Simulation Studies of Self-Assembled Brushes Formed by Centrally Adsorbed Star Polymers	**Macromolecules**	41	20	7648-7655	0024 9297	Hiotelis I;Koutsioubas A G. Spiliopoulos N; Anastassopoulos D L. Vradis A A. Toprakcioglu C; **Menelle A;** Sakellariou G; Hadjichristidis N.
81	Structural details of cellulose nanocrystals/polyelectrolytes multilayers probed by neutron reflectivity and AFM	**Langmuir**	24	7	3452-3458	0743 7463	Jean B; Dubreuil F; Heux L; **Cousin F**
82	Anisotropic reinforcement of nanocomposites tuned by magnetic orientation of the filler network	**Advanced Materials**	20	13	2533	0935 9648	**Jestin J; Cousin F**; Dubois I; Menager C; Schweins R; Oberdisse J **;Boue F,**
131	Thermoresponsive core-shell microgels with silica nanoparticle cores: size structure and volume phase transition of the polymer shell	**Physical Chemistry Chemical Physics**	10	44	6708-6716	1463 9076	Karg M; Wellert S; Pastoriza-Santos I; **Lapp A;** Liz-Marzan L;M. Hellweg T.
132	Dynamics of C-phycocyanin in various deuterated trehalose/water environments measured by quasielastic and elastic neutron scattering	**European Biophysics Journal with Biophysics Letters**	37	6	739-748	0175 7571	Koeper I; **Combet S**; Petry W; **Bellissent-Funel M-C**
133	Neutron Reflectivity Study of the Complexation of DNA with Lipids and Surfactants at the Surface of Water	**Langmuir**	24	21	12347-12353	0743 7463	Kundu S. Langevin D. **Lee L-T**.
134	Microscopic protein diffusion at high concentration by neutron spin-echo spectroscopy	**Chemical Physics**	345	2-3	298-304	0301 0104	**Le Coeur C. Longeville S**.
135	Incoherent quasielastic neutron scattering study of molecular dynamics of 4-n-octyl-4'-cyanobiphenyl	**Physical Chemistry Chemical Physics**	10	20	2993-2999	1463 9076	Lefort R; Morineau D ;Guegan R; Ecolivet C; Guendouz M; **Zanotti JM;** Frick B
136	Relation between static short-range order and dynamic heterogeneities in a nanoconfined liquid crystal	**Physical Review E**	78	4	PART 1	1539 3755	Lefort R; Morineau D; Guegan R; Guendouz M; **Zanotti J-M**;F B.
137	Signature of Low-Dimensional Diffusion in Complex Systems	**Physical Review Letters**	101	26	265901	0031 9007	**Malikova N. Longeville S. Zanotti J**. -M. Dubois E. Marry V. Turq P. Ollivier J.
138	Water diffusion in a synthetic hectorite by neutron scattering - beyond the isotropic translational model	**Journal of Physics-Condensed Matter**	20	10	104205	0953 8984	Marry V. Malikova N. Cadene A. Dubois E. Durand-Vidal S. Turq P. Breu J. **Longeville S. Zanotti J-M**
139	Dynamic studies of Ormosil membranes	**Journal of Non-Crystalline Solids**	354	2-9	680-687	0022 3093	Maver K. Stangar U. Lavrencic Judeinstein P. **Zanotti J. M.**
95	Oxidation behaviour of SiC coatings	**Applied Physics A-Materials Science & Processing**	92	2	387-395	0947 8396	Mergia K. Lafatzis D. Moutis N. Speliotis T. Apostolopoulos **G. Cousin F**.

140	Redispersible hybrid nanopowders: Cerium oxide nanoparticle complexes with phosphonated-PEG oligomers	**Acs Nano**	2	5	879-888	1936 0851	Qi Ling ;Sehgal Amit ;Castaing J-C ;Chapel J-P;Fresnais J ;Berret J-F ;**Cousin F;**
141	Water hydrogen bond analysis on hydrophilic and hydrophobic biomolecule sites	**Physical Chemistry Chemical Physics**	10	32	4968-4974	1463 9076	Russo Daniela; Ollivier Jacques; **Teixeira Jose**
142	The acacia gum arabinogalactan fraction is a thin oblate ellipsoid: A new model based on small-angle neutron scattering and ab initio calculation	**Biophysical Journal**	94	2	629-639	0006 3495	Sanchez C. Schmitt C. Kolodziejczyk E. **Lapp A**. Gaillard C. Renard D.
143	SANS/SAXS study of the BSA solvation properties in aqueous urea solutions via a global fit approach	**European Biophysics Journal with Biophysics Letters**	37	5	673-681	0175 7571	Sinibaldi R ;Ortore M G ;Spinozzi F; Funari S ;de Souza; **Teixeira J**; Mariani P,
144	Complex structure and dynamics of diblock copolymers in a mixture of partially miscible solvents	**Complex Systems**	982		446-451	0094 243X	Stepanek Petr Tuzar Zdenek Kadlec Petr Kriz Jaroslav Nallet Frederic **Noirez Laurence** Talmon Yeshayahu
145	Confinement of DNA in Water-in-Oil Microemulsions	**Langmuir**	24	20	11828-11833	0743 7463	Swami A;Espinosa G;Guillot S; Raspaud E ;**Boue F** ;Langevin D.
146	Dynamics of hydrogen bonds in water and consequences for the unusual behaviour of supercooled water	**Pramana-Journal of Physics**	71	4	761-768	0304 4289	**Teixeira Jose**
147	Neutron and X-ray scattering experiments on fully deuterated liquid N-methylacetamide CD3CONDCD3 at various temperatures and under pressure	**Journal of Molecular Structure**	891	3	388-395	0022 2860	Trabelsi S; Hammami F; Nasr S; **Bellissent-Funel M-C,**
148	Multiblock copolymer behaviour of alpha-CD/PEO-based polyrotaxanes: towards nano-cylinder self-organization of alpha-CDs	**Soft Matter**	4	9	1855-1860	1744 683X	Travelet C; Schlatter G; Hebraud P;l Brochon C; **Lapp A**;Anokhin D V. Ivanov Dimitri A. Gaillard C; Hadziioannou G.
149	Oligomeric PEG-phospholipids for solubilization and stabilization of fluorescent nanocrystals in water	**Langmuir**	24	7	3016-3019	0743 7463	Travert-Branger N ;Dubois F; Carion O**; Carrot G ;**Mahler B ;Dubertret B; Doris E; Mioskowski C
150	Micelles of a Diblock Copolymer of Styrene and Ethylene Oxide in Mixtures of 26-Lutidine and Water	**Langmuir**	24	24	13863-13865	0743 7463	Tuzar Z. Kadlec P. Stepanek P. Kriz J. Nallet F**. Noirez L**.
151	Structural changes in dipalmitoylphosphatidylcholine bilayer promoted by Ca2+ ions: a small-angle neutron scattering study	**Chemistry and Physics of Lipids**	155	2	80-89	0009 3084	Uhrikova D; Kucerka N; **Teixeira J** ;Gordeliy V ;Balgavy P,
152	Structure of biodiesel based bicontinuous microemulsions for environmentally compatible decontamination: A small angle neutron scattering and freeze fracture electron microscopy study	**Journal of Colloid and Interface Science**	325	1	250-258	0021 9797	Wellert S. Karg M. Imhof H. Steppin A. Altmann H. -J. Dolle M. Richardt A. Tiersch B. Koetz J**. Lapp A.** Hellweg T.

153	Hydration water rotational motion as a source of configurational entropy driving protein dynamics. Crossovers at 150 and 220 K	**Physical Chemistry Chemical Physics**	10	32	4865-4870	1463 9076	**Zanotti J. -M. Gibrat G. Bellissent-Funel M. -C.**
154	Na atomic order Co charge disproportionation and magnetism in NaxCoO2 for large Na contents	**EuroPhysics letters**	82	1	17002	0295 5075	Alloul H. Mukhamedshin I. R. Collin G. Blanchard N.
155	Solubilization in alkanes by alcohols as reverse hydrotropes or "Lipotropes"	**Journal of Physical Chemistry B**	112	39	12354-12360	1520 6106	Bauduin P; Testard F; Zemb T
156	Double-polyelectrolyte like-charged amphiphilic diblock copolymers: Swollen structures and pH- and salt-dependent lyotropic behavior	**Journal of Physical Chemistry B**	112	27	7996-8009	1520 6106	Bendejacq D, D. Ponsinet V
157	Development and Characterization of New Cyclodextrin Polymer-Based DNA Delivery Systems	**Bioconjugate Chemistry**	19	12	2311-2320	1043 1802	Burckbuchler V; Wintgens V; Leborgne C; Lecomte S; Leygue N; Scherman D;Kichler A; Amiel Catherine,
158	Sliding and translational diffusion of molecular phases confined into nanotubes	**International Journal of Nanotechnology**	5	8	867-884	1475 7435	Busselez R. Ecolivet C. Guegan R. Lefort R. Morineau D. Toudic B. Guendouz M. Affouard F.
159	Study of the organization and genesis of Randall's plaques by physical techniques of characterization	**Journal of Urology**	179	4	506-506	0022 5347	Carpentier Xavier; Daudon Michel; Bazin Dominique; **Andre Gilles**; Matzen Guy Veron Emmanuel Mangenot Stephanie Traxer Olivier
160	Tuning competing orders in La2-xSrxCuO4 cuprate superconductors by the application of an external magnetic field	**Physical Review B**	78	10	104525	1098 0121	Chang J. Niedermayer Ch. Gilardi R. Christensen N. B. Ronnow H. M. McMorrow D. F. Ay M. Stahn J. Sobolev O. Hiess A. **Pailhes S.** Baines C. Momono N. Oda M. Ido M. Mesot J.
161	Electronic structure near the 1/8-anomaly in La-based cuprates	**New Journal of Physics**	10	10	103016	1367 2630	Chang J. Sassa Y. Guerrero S. Mansson M. Shi M**. Pailhes S.** Bendounan A. Mottl R. Claesson T. Tjernberg O. Patthey L. Ido M. Oda M. Momono N. Mudry C. Mesot J.
162	Anisotropic quasiparticle scattering rates in slightly underdoped to optimally doped high-temperature La2-xSrxCuO4 superconductors	**Physical Review B**	78	20	205103	1098 0121	Chang J. Shi M. **Pailhes S.** Mansson M. Claesson T. Tjernberg O. Bendounan A. Sassa Y. Patthey L. Momono N. Oda M. Ido M. Guerrero S. Mudry C. Mesot J.
163	Control of roughness at interfaces and the impact on charge mobility in all-polymer field-effect transistors	**Soft Matter**	4	11	2220-2224	1744 683X	Chang Shion Seng; Rodriguez A B.; Higgins A M.; Liu Chuan ;Geoghegan M ;Sirringhaus H; **Cousin F**;Dalgleish R M. Deng Y
164	Synthesis and self-assembly in water of coil-rod-coil Amphiphilic block copolymers with central pi-conjugated sequence	**Journal of Polymer Science Part A-Polymer Chemistry**	46	13	4602-4616	0887 624X	De Cuendias Anne Ibarboure Emmanuel Lecommandoux Sebastien Cloutet Eric Cramail Henri
165	Self-assembly of unprecedented swollen multilamellar twisted ribbons from a racemic hydroxy fatty acid	**Chemphyschem**	9	1	74-77	1439 4235	Douliez J-P; Navailles L; Nallet F; Gaillard C
166	Phosphonic acid functionalized polyethylene glycol and derivatives	**Journal of Applied Polymer Science**	108	1	483-490	0021 8995	Essahli M; Ganachaud Fr; In Martin; Boutevin B,

167	Small-Angle Neutron Scattering characterization of Al2O3/Ni-P nanocomposites	**Materials Science and Engineering B-Advanced Functional Solid-State Materials**	152	1-3	136-139	0921 5107	Fiori F. Girardin E. Albertini G. Konopka K. Rustichelli F.
168	Broad polymorphism of fatty acids with amino organosilane counterions towards novel templates	**Chemistry of Materials**	20	4	1206-1208	0897 4756	Gaillard C; Novales B; Jerome F; Douliez J-P,
169	Water profile determination in a running PEMFC by small-angle neutron scattering	**Journal of Power Sources**	179	1	132-139	0378 7753	Gebel G; Diat O; Escribano S; Mosdale R
170	Ground state of Ca-doped strontium titanate: Ferroelectecity versus polar nanoregions	**Physical Review B**	77	17	174401	1098 0121	Geneste Gregory **;Kiat Jean-Michel**
171	Pressure-induced hydrogen-dominant metallic state in aluminum hydride	**Physical Review Letters**	100	4	45504	0031 9007	**Goncharenko I ;**Eremets M. I. Hanfland M. Tse J. S. Amboage M. Yao Y. Trojan I. A.
172	An optical microscope study of photo-switching and relaxation in single crystals of the spin transition solid Fe(ptz)(6) (BF4)(2) with image processing	**Inorganica Chimica Acta**	361	14-15	4055-4064	0020 1693	Goujon A. Varret F. Boukheddaden K. Chong C. Jeftic J. Garcia Y. Naik A. D. Ameline J. C. Collet E.
173	Restricted swelling and its orientation effect on copolymer micellar solutions of hexagonal-packed cylinders under steady shear flow	**Langmuir**	24	6	2318-2325	0743 7463	Grandjean J. Mourchid A.
174	Crystal chemistry and Calphad modeling of the sigma phase	**Progress in Materials Science**	53	3	528-583	0079 6425	Joubert J. -M.
175	Tuning colloidal interactions through coordination chemistry	**Chemphyschem**	9	7	1010-1019	1439 4235	Joubert ; In Martin
176	Synthesis and self-assembling properties of alphaomega-hydroxy-poly(ethylene oxide) end-capped with 1-isocyanato-3-pentadecylcyclohexane	**Polymer**	49	21	4635-4646	0032 3861	Kadam Vijay S. Badiger Manohar V. Wadgaonkar Prakash P. Ducouret G;Hourdet D,
177	Hydrophilic cationic large-core star polymers and polymer networks: Synthesis and physicochemical characterization	**Journal of Polymer Science Part A-Polymer Chemistry**	46	12	3958-3969	0887 624X	Kafouris D; Gradzielski M; Patrickios Costas S.
178	Absence of wave packet diffusion in disordered nonlinear systems	**Physical Review Letters**	100	8	84103	0031 9007	Kopidakis G. Komineas S. Flach S. **Aubry S.**
179	Crystal and magnetic structures and physical properties of the Sm0.37Sr0.63MnO3 manganite	**Physics of the Solid State**	50	2	275-282	1063 7834	Kurbakov A. I. Martin C. Maignan A.
180	Sm0.45Sr0.55MnO3: crystal and magnetic structure studied by neutron powder diffraction	**Journal of Physics-Condensed Matter**	20	10	104233	0953 8984	Kurbakov A. I. Martin C. Maignan A.
181	Spin correlations and cobalt charge states: Phase diagram of sodium cobaltates	**Physical Review B**	78	15	155116	1098 0121	Lang G. Bobroff J. Alloul H. Collin G. Blanchard N.

182	Biodegradable polycarbonate-b-polypeptide and polyester-b-polypeptide block copolymers: Synthesis and nanoparticle formation towards biomaterials	**Biomacromolecules**	9	7	1924-1933	1525 7797	Le Hellaye M; Fortin N; Guilloteau Julien Sou; Alain Lecommandoux S; Guillaume Sophie M.
183	First-order ferromagnetic to helimagnetic transition in MgMn6Ge6	**Journal of Applied Physics**	103	4	43903	0021 8979	Mazet T. Ihou-Mouko H. Malaman B.
184	Magnetic structure and analysis of the exchange interactions in BiMO(PO4) (M = Co Ni)	**Journal of Physics-Condensed Matter**	20	41	415211	0953 8984	Mentre O. **Bouree F**. Rodriguez-Carvajal J. El Jazouli A. El Khayati N. Ketatni El M.
185	Structure dimensionality and magnetism of new cobalt oxyhalides	**Solid State Sciences**	10	4	471-475	1293 2558	Mentre O ;Kauffmann M; Ehora G; Daviero-Minaud S;Abraham F; Roussel P;
186	Disordered misfit Ca2CoO3 CoO2 (1.62) structure revisited via a new intrinsic modulation	**Acta Crystallographica Section B-Structural Science**	64	2	144-153	0108 7681	Muguerra H; Grebille D; **Bouree F,**
187	Synthesis of Calibrated Poly(34-ethylenedioxythiophene) Latexes in Aqueous Dispersant Media	**Langmuir**	24	20	11911-11920	0743 7463	Mumtaz M; Lecommandoux S;Cloutet E; Cramail H,
188	Effects of the nanomechanical properties of polymer nanoparticles on crack patterns during drying of colloidal suspensions	**Macromolecules**	41	15	5928-5933	0024 9297	Nawaz Qamar Rharbi Yahya
189	Self-assembly of fatty acids and hydroxyl derivative salts	**Langmuir**	24	1	62-68	0743 7463	Novales B; Navailles L ;Axelos M ;Nallet F; Douliez J-P
190	Origins of large critical temperature variations in single-layer cuprates	**Physical Review B**	78	5	54523	1098 0121	Palczewski A. D. Kondo T. Khasanov R. Kolesnikov N. N. Timonina A. V. Rotenberg E. Ohta T. Bendounan A. Sassa Y. Fedorov A**. Pailhes S**. Santander-Syro A. F. Chang J. Shi M. Mesot J. Fretwell H. M. Kaminski A.
191	Phonon linewidths in YNi2B2C	**Pramana-Journal of Physics**	71	4	687-693	0304 4289	Pintschovius L. Weber F. Reichardt W. Kreyssig A. Heid R. Reznik D. Stockert O. Hardil K.
192	Fluctuations and skewness of the current in the partially asymmetric exclusion process	**Journal of Physics a-Mathematical and Theoretical**	41	36	365003	1751 8113	Prolhac S,
193	Structure and rheological properties of model microemulsion networks filled with nanoparticles	**European Physical Journal E**	266	40 210	13-24	1292 8941	Puech N. Mora S. Testard V. Porte G. Ligoure C. Grillo I. Phou T. Oberdisse J.
194	Pluronics-Stabilized Gold Nanoparticles: Investigation of the Structure of the Polymer-Particle Hybrid	**Chemphyschem**	9	15	2230-2236	1439 4235	Rahme K;l Oberdisse J; Schweins R; Gaillard C; Marty J-D; Mingotaud C; Gauffre F,
195	Local-moment fluctuations in the optimally doped high-T-c superconductor YBa2Cu3O6.95	**Physical Review B**	78	13	132503	1098 0121	Reznik D. Ismer J. -P. Eremin I. Pintschovius L. Wolf T. Arai M. Endoh Y. Masui T. Tajima S.
196	Temperature dependence of the bond-stretching phonon anomaly in YBa2Cu3O6.95	**Physical Review B**	78	9	94507	1098 0121	Reznik D. Pintschovius L. Tranquada J. M. Arai M. Endoh Y. Masui T. Tajima S.

197	Photoemission kinks and phonons in cuprates	**Nature**	455	7213	E6-E7	0028 0836	Reznik D. Sangiovanni G. Gunnarsson O. Devereaux T. P.
198	Reduction of the glass transition temperature of confined polystyrene nanoparticles in nanoblends	**Physical Review E**	77	3	31806	1539 3755	Rharbi Yahya
199	Polysaccharide/Surfactant Complexes at the Air-Water Interface - Effect of the Charge Density on Interfacial and Foaming Behaviors	**Langmuir**	24	22	12849-12857	0743 7463	Ropers M. H. Novales B. **Boue F**. Axelos M. A. V.
200	Glycodynamers: Fluorescent dynamic analogues of polysaccharides	**Angewandte Chemie-International Edition**	47	19	3556-3559	1433 7851	Ruff Yves Lehn Jean-Marie
201	Structural behaviour of synthetic Co2SiO4 at low temperatures	**Acta crystallographica Section B**	64	part 6	661-668	0108 7681	Sazonov A; Meven M; Hutanu V; Kaiser V; Heger G; Trots D; Merz M
202	Structural characterization of water/ice formation in SBA-15 silicas: III. The triplet profile for 86 angstrom pore diameter	**journal of physics-condensed matter**	20	20	205108	0953 8984	Seyed-Yazdi J. Farman H. Dore John C. Webber J. Beau W. Findenegg G. H.
203	Coherent d-wave superconducting gap in underdoped La2-xSrxCuO4 by angle-resolved photoemission spectroscopy	**Physical Review Letters**	101	4	47002	0031 9007	Shi M. Chang J. Pailhes S. Norman M. R. Campuzano J. C. Mansson M. Claesson T. Tjernberg O. Bendounan A. Patthey L. Momono N. Oda M. Ido M. Mudry C. Mesot J.
204	Hydrogen diffusion in high temperature proton conducting ceramics	**Nuclear Instruments & Methods in Physics Research Section B**	266	8	1430-1433	0168 583X	Sorieul S. Miro S. Taillades-Jacquin M. Dailly J. Mauvy F. Berger M. -H. Berger P.
205	Palladium nanoballs synthesized in hexagonal mesophases	**Journal of Physical Chemistry C**	112	29	10740-10744	1932 7447	Surendran G;i Ksar Fayca; Ramos L; Keita B; Nadjo L; Prouzet E; Beaunier P; Dieudonne P **;Audonnet F;** Remita Hynd
206	New sources and instrumentation for neutrons in biology	**Chemical Physics**	345	3	133-151	0301 0104	Teixeira S. C. M. Zaccai G. Ankner J. **Bellissent-Funel M. C**. Bewley R. Blakeley M. P. Callow P. Coates L. Dahint R. Dalgliesh R. Dencher N. A. Forsyth V. T.
207	An Experimental Study of the Lattice Dynamics in Fully Deuterated Lithium Acetate Dihydrate	**Ferroelectrics**	369		43-52	0015 0193	Teles P. **Quilichini M. Hennion B**. Bosak A.
208	SG1-based alkoxyamine bearing a N-succinimidyl ester: A versatile tool for advanced polymer synthesis	**Polymer**	49	17	3639-3647	0032 3861	Vinas J; Chagneux N ;Gigmes D; Trimaille T; Favier A; Bertin D,
209	Direct Observation of the Superconducting Gap in Phonon Spectra	**Physical Review Letters**	101	23	237002	0031 9007	Weber F. Kreyssig A. Pintschovius L. Heid R. Reichardt W. Reznik D. Stockert O. Hradil K.
210	Core-shell-corona micelles by PS-b-MP-b-PEO copolymers: Focus on the water-induced micellization process	**Langmuir**	24	7	3009-3015	0743 7463	Willet N; Gohy J-F;Auvray L; Varshney Sunil; Jerome Robert; Leyh Bernard

211	Thermodynamic structural and dynamic properties of supercooled water confined in mesoporous MCM-41 studied with calorimetric neutron diffraction and neutron spin echo measurements	**Journal of Chemical Physics**	129	5	54702	0021 9606	Yoshida Koji ;Yamaguchi Toshio ;Kittaka S; **Bellissent-Funel M-C**; Fouquet P,
212	Magnetic exchange couplings in the single-molecule magnet of Mn-12-Ac	**Journal of Chemical Physics**	128	15	154711	0021 9606	Zhang Junrong; He Lunhua ;**Cao Huibo;** Wang Fangwei; Zhang Panlin
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213	Effect of the temperature history on the magnetism of (110) europium films	**Journal of Applied Physics**	105	7	07A928	0021 8979	**Bataille A. M.** Dumesnil K. Gukasov A. Dufour C.
214	Evidence for Room-Temperature Multiferroicity in a Compound with a Giant Axial Ratio	**Physical Review Letters**	102	21	217603	0031 9007	Bea H. Dupe B. Fusil S. Mattana R. Jacquet E. Warot-Fonrose B. Wilhelm F. Rogalev A. **Petit S**. Cros V. Anane A. Petroff F. Bouzehouane K. Geneste G. Dkhil B. Lisenkov S. Ponomareva I. Bellaiche L. Bibes M. Barthelemy A.
215	Anisotropic exchange in frustrated pyrochlore Yb2Ti2O7	**Journal of Physics-Condensed Matter**	21	49	492902	0953 8984	**Cao H. B. Gukasov A. Mirebeau I.** Bonville P.
216	Ising versus XY Anisotropy in Frustrated R2Ti2O7 Compounds as "Seen" by Polarized Neutrons	**Physical Review Letters**	103	5	56402	0031 9007	**Cao H. Gukasov A. Mirebeau I**. Bonville P. Decorse C. Dhalenne G.
217	Field induced ground states in Tb2Ti2O7 spin liquid	**Journal of Physics Conference Series-Highly Frustrated Magnetism 2008**	145	1	12021	1742 6588	**Cao H; Mirebeau I;Gukasov A**; Bonville P
218	Magnetic Correlations in La(2-x)SrxCoO(4) Studied by Neutron Scattering: Possible Evidence for Stripe Phases	**Physical Review Letters**	102	5	57201	0031 9007	Cwik M. Benomar M. Finger T. **Sidis Y**. Senff D. Reuther M. Lorenz T. Braden M.
219	Spin-lattice coupling induced phase transition in the S=2 frustrated antiferromagnet CuMnO2	**Physical Review B**	80	9	94410	1098 0121	Damay F. Poienar M. Martin C. Maignan A. Rodriguez-Carvajal J. **Andre G.** Doumerc J. P.
220	Neutron diffraction study of magnetic ordering of the manganese bismuth chloro-sulfide: MnBiS2Cl	**Materials Research Bulletin**	44	4	759-761	0025 5408	Doussier-Brochard C. Leone P. **Andre G**. Moelo Y.
221	trans-Decahydronaphthalene (decalin) from powder diffraction data	**Acta Crystallographica Section C-Crystal Structure Communications**	65	part 6	O278-O280	0108 2701	Eibl S; Fitch A Brunelli M; Evans A; Dominic P; Philip P; Marie J ;Mark R **;Alba-Simionesco C.** Schober H.
222	Spin-Lattice Coupling Frustration and Magnetic Order in Multiferroic RMnO3	**Physical Review Letters**	103	6	67204	0031 9007	**Fabreges X. Petit S. Mirebeau I. Pailhes S**. Pinsard L. Forget A. Fernandez-Diaz M. T. Porcher F.
223	Inelastic neutron scattering investigation of magnetic excitations in the spin-Peierls ground state of (TMTTF)(2)PF6	**Physica B-Condensed Matter**	404	40 271	537-540	0921 4526	Foury-Leleykian **P; Petit** S; Coulon C; **Hennion B**

224	Spin density and non-collinear magnetization in frustrated pyrochlore Tb2Ti2O7 from polarized neutron scattering	**Physica B-Condensed Matter**	404	17	2509-2512	0921 4526	**Gukasov Arsen; Cao Huibo; Mirebeau Isabelle**; Bonville Pierre
225	Magnetic-Field-Enhanced Incommensurate Magnetic Order in the Underdoped High-Temperature Superconductor YBa2Cu3O6.45	**Physical Review Letters**	103	1	17001	0031 9007	Haug D. Hinkov V. Suchaneck A. Inosov D. S. Christensen N. B. Niedermayer Ch. **Bourges P. Sidis Y**. Park J. T. Ivanov A. Lin C. T. Mesot J. Keimer B.
226	Self-Assembly of Two-Component Gels: Stoichiometric Control and Component Selection	**Chemistry-a European Journal**	15	2	372-379	0947 6539	Hirst Andrew R. Miravet Juan E. Escuder Beatriu **Noirez Laurence** Castelletto Valeria Hamley Ian W. Smith David K.
227	Neutron diffraction and heat capacity studies of PrCoO3 and NdCoO3	**Physical Review B**	79	13	134103	1098 0121	Knizek Karel Hejtmanek Jiri Jirak Zdenek Tomes Petr Henry Paul **;Andre Gilles**
228	Magnetic study of CaMn0.96Mo0.04O3 canting vs. phase separation	**Journal of Magnetism and Magnetic Materials**	321	23	3938-3944	0304 8853	Martin C. Miclau M. Hebert S. Giot M. Maignan A. **Andre G. Bouree-Vigneron F**.
229	Effect of Nonmagnetic Substituents Mg and Zn on the Phase Competition in the Multiferroic Antiferromagnet MnWO4	**Chemistry of Materials**	21	21	5203-5214	0897 4756	Meddar L ;Josse M; Deniard P; La Carole**; Andre G; Damay F** ;Petricek V; Jobic S; Whangbo M-H;Maglione M; Payen C.
230	Incommensurate spin correlation driven by frustration in BiCu2PO6	**Physical Review B**	80	18	180413	1098 0121	Mentre O. Janod E. Rabu P. Hennion M. Leclercq-Hugeux F. Kang J. Lee C. Whangbo M. -H. **Petit S**.
231	Effect of Nd substitution on the magnetic order in CexNd1-xB6 solid solutions	**Physical Review B**	79	22	224426	1098 0121	**Mignot J-M. Robert J. Andre G**. Sera M. Iga F.
232	Magnetic order in Tb2Sn2O7 under high pressure: From ordered spin ice to spin liquid and antiferromagnetic order	**Physical Review B**	80	22	200407	1098 0121	**Mirebeau I. Goncharenko I. Cao H**. Forget A.
233	Measurement of Anomalous Phonon Dispersion of CaFe2As2 Single Crystals Using Inelastic Neutron Scattering	**Physical Review Letters**	102	21	217001	0031 9007	Mittal R. Pintschovius L. **Lamago D.** Heid R. Bohnen K-P. Reznik D. Chaplot S. L. Su Y. Kumar N. Dhar S. K. Thamizhavel A. Brueckel Th.
234	Superconducting Pairing through the Spin Resonance Mode in High-Temperature Cuprate Superconductors	**Physical Review Letters**	102	20	207003	0031 9007	**Onufrieva F. Pfeuty P.**
235	Hybrid Goldstone modes in multiferroic YMnO3 studied by polarized inelastic neutron scattering	**Physical Review B**	79	13	134409	1098 0121	**Pailhes S. Fabreges X**. Regnault L. P. Pinsard-Godart L. **Mirebeau I. Moussa F. Hennion M. Petit S**.
236	Towards a more reliable symmetry determination from powder diffraction: a redetermination of the low-temperature structure of 4-methylpyridine-N-oxide	**Acta Crystallographica Section B-Structural Science**	65		784-786	0108 7681	Palatinus Lukas; **Damay Francoise**,
237	Structural and magnetic properties of DyMn2D6 synthesized under high deuterium pressure	**Journal of Physics-Condensed Matter**	21	1	16001	0953 8984	Paul-Boncour V. Filipek S. M. Wierzbicki R. **Andre G. Bouree F.** Guillot M.
238	Quantized Spin Waves in the Metallic State of Magnetoresistive Manganites	**Physical Review Letters**	102	20	207201	0031 9007	**Petit S. Hennion M. Moussa F. Lamago D**. Ivanov A. Mukovskii Y. M. Shulyatev D.

239	Structural and magnetic properties of CuCr1-xMgxO2 by neutron powder diffraction	**Physical Review B**	79	1	14412	1098 0121	Poienar M; **Damay F**;Martin C; Hardy V; Maignan A**; Andre G**
240	Magnetization densities in URhSi studied by polarized neutron diffraction	**Physical Review B**	79	2	24406	1098-0121	Prokes K. **Gukasov A**.
241	Experimental magnetic form factors in Co3V2O8: A combined study of ab initio calculations magnetic Compton scattering and polarized neutron diffraction	**Physical Review B**	79	9	94417	1098-0121	Qureshi N. Zbiri M. Rodriguez-Carvajal J. Stunault A. Ressouche E. Hansen T. C. Fernandez-Diaz M. T. Johnson M. R. Fuess H. Ehrenberg H. Sakurai Y. Itou M. **Gillon B.** Wolf Th. Rodriguez-Velamazan J. A. Sanchez-Montero J.
242	The magnetic structure of clinopyroxene-type LiFeGe2O6 and revised data on multiferroic LiFeSi2O6	**Journal of Solid State Chemistry**	182	9	2374-2384	0022-4596	Redhammer GJ. Roth G; Treutmann W; Hoelzel M ;Paulus W ;**Andre G;** Pietzonka C ;Amthauer G;
243	Phonons in doped and undoped BaFe2As2 investigated by inelastic x-ray scattering	**Physical Review B**	80	21	214534	1098-0121	Reznik D. Lokshin K. Mitchell D. C. Parshall D. Dmowski W. **Lamago D**. Heid R. Bohnen K. -P. Sefat A. S. McGuire M. A. Sales B. C. Mandrus D. G. Subedi A. Singh D. J. Alatas A. Upton M. H. Said A. H. Cunsolo A. Shvyd'ko Yu. Egami T.
244	Magnetic behaviour of synthetic Co2SiO4	**Acta Crystallographica Section B-Structural Science**	65		664-675	0108-7681	Sazonov A; Meven M; Hutanu V; Heger G; Hansen T; **Gukasov A**
245	Incommensurate magnetic ordering in Ti-doped Sr3Ru2O7	**Physical Review B**	79	5	54422	1098-0121	Steffens P. Farrell J. Price S. Mackenzie A. P. Sidis Y. Schmalzl K. Braden M.
246	Huge influence of hydrogenation on the magnetic properties and structures of the ternary silicide NdMnSi	**Journal of Applied Physics**	106	3	33310	0021-8979	Tence S. **Andre G.** Gaudin E. Bonville P. Al Alam A. F. Matar S. F. Hermes W. Poettgen R. Chevalier B.
247	Multi-magnetic phases in the ferromagnetic ternary silicides Nd6Co1.67Si3 and Tb6Co1.67Si3	**Journal of Physics D-Applied Physics**	42	16	165003	0022-3727	Tence S. Gaudin E. **Andre G.** Chevalier B.
248	Magnetic Properties and Magnetic Structure of (Cu3Mo2O9)-Mo-II-O-VI	**Inorganic Chemistry**	48	6	2687-2692	0020-1669	Vilminot S ;**Andre G;** Kurmoo M
249	Structure of the flux lines lattice in NbSe2: Equilibrium state and influence of the magnetic history	**Physical Review B**	79	18	184511	1098-0121	Pautrat A. Aburas M. Simon Ch. Mathieu P. **Brulet A**. Dewhurst C. D. Bhattacharya S. Higgins M. J.
250	Design of crosslinked hybrid multilayer thin films from azido-functionalized polystyrenes and platinum nanoparticles	**Soft Matter**	5	3	586-592	1744-683X	Al Akhrass Samer; **Gal Francois**; Damiron Denis; Alcouffe Pierre; Hawker Craig J; **Cousin Fabrice; Carrot Geraldine** ;Drockenmuller Eric
251	Relation between Nanoscale Structure of Asphaltene Aggregates and their Macroscopic Solution Properties	**Oil & Gas Science and Technology-Revue De L Institut Francais Du Petrole**	64	5	617-628	1294 4475	Barre L**. Jestin J**. Morisset A. Palermo T. Simon S.
213	Effect of the temperature history on the magnetism of (110) europium films	**Journal of Applied Physics**	105	7	07A928	0021 8979	Bataille A. M. Dumesnil K. **Gukasov A**. Dufour C.

252	Consequences of interfacial Fe-O bonding and disorder in epitaxial Fe/MgO/Fe(001) magnetic tunnel junctions	**Physical Review B**	79	22	224405	1098 0121	Bonell F. Andrieu S. **Bataille A. M.** Tiusan C. Lengaigne G.
253	IM-19: a new flexible microporous gallium based-MOF framework with pressure- and temperature-dependent openings	**Physical Chemistry Chemical Physics**	11	26	5241-5245	1463 9076	Chaplais G; Simon-Masseron A**; Porcher F;** Lecomte C; Bazer-Bachi D; Bats N; Patarina J
254	Probing simultaneously the volume and surface structure of nanospheres adsorbed at a solid-liquid interface by GISANS	**European Physical Journal-Special Topics**	167		177-183	1951 6355	**Cousin F. Jestin J. Chaboussant G. Gautrot S. Menelle A. Ott F.**
255	CEA developments of new ferritic ODS alloys for nuclear applications	**Journal of Nuclear Materials**	386		430-432	0022 3115	de Carlan Y. Bechade J. -L Dubuisson P. Seran J. -L. Billot P. Bougault A. Cozzika T. Doriot S. Hamon D. Henry J. Ratti M. Lochet N. Nunes D. Olier P. Leblond T. **Mathon M. H.**
256	Neutron reflectivity on polymer multilayers doped with magnetic nanoparticles	**Diffusion and defect data part B**			194-197		Douadi-Mazrouki S; Frka-Petesic B; Sandre O; **Cousin F**
257	Microstructural and magnetic study of Fe-implanted 6H-SiC	**Physica B-Condensed Matter**	404	23-24	4731-4734	0921 4526	Dupeyrat C. Declemy A. Drouet M. Eyidi D. Thome L. Debelle A. Viret M. **Ott F**.
258	Well-Dispersed Fractal Aggregates as Filler in Polymer-Silica Nanocomposites: Long-Range Effects in Rheology	**Macromolecules**	42	6	2031-2040	0024 9297	**Jouault N**; Vallat P; Dalmas F; Said S;**Jestin J; Boue F;**
259	Resonances and off-specular scattering in neutron waveguides	**European Physical Journal-Special Topics**	167		87-92	1951 6355	Kozhevnikov S. V**. Ott F**. Paul A. Rosta L.
260	Study of PM2000 microstructure evolution following FSW process	**Journal of Nuclear Materials**	386		475-478	0022 3115	**Mathon M. H. Klosek V.** de Carlan Y. Forest L.
261	Exchange bias in Co/CoO core-shell nanowires: Role of antiferromagnetic superparamagnetic fluctuations	**Physical Review B**	80	6	64227	1098 0121	Maurer T; **Zighem F; Ott F; Chaboussant G; Andre G**; Soumare Y; Piquemal J-Y; Viau G; Gatel C.
262	Shear-Induced Isotropic to Nematic Transition of Liquid-Crystal Polymers: Identification of Gap Thickness and Slipping Effects	**Langmuir**	25	9	5248-5252	0743 7463	**Mendil-Jakani Hakima Baroni Patrick Noirez Laurence**
263	Growth and magnetic behavior in hybrid organic-inorganic Ferrite/Alq(3)/Co heterostructures	**Journal of Materials Chemistry**	19	38	6973-6976	0959 9428	Moussy J-B; Tortech L; Rengnez F; Matzen S; **Ott F** ;Guittet M-J. Fichou D;
264	The missing parameter in rheology: hidden solid-like correlations in viscous liquids polymer melts and glass formers	**Polymer International**	58	8	962-968	0959 8103	**Noirez L;** Baroni P; **Mendil-Jakani H.**
265	New Light on Old Wisdoms on Molten Polymers: Conformation Slippage and Shear Banding in Sheared Entangled and Unentangled Melts	**Macromolecular Rapid Communications**	30	20	1709-1714	1022 1336	**Noirez L;** Mendil-Jakani H; **Baroni P.**

266	Effects of the shape of elongated magnetic particles on the coercive field	**Journal of Applied Physics**	105	1	13915	0021 8979	**Ott F. Maurer T. Chaboussant G**. Soumare Y. Piquemal J. -Y. Viau G.
267	New designs for high intensity specular neutron reflectometers	**European Physical Journal-Special Topics**	167		93-99	1951 6355	**Ott F. Menelle A.**
268	Artificial antiphase boundary at the interface of ferrimagnetic spinel bilayers	**Physical Review B**	79	1	14401	1098 0121	Ramos Ana V; Matzen S; MoussyJ-B; **Ott F;** Viret M.
269	Influence of titanium on nano-cluster (Y Ti O) stability in ODS ferritic materials	**Journal of Nuclear Materials**	386		540-543	0022 3115	Ratti M. Leuvrey D**. Mathon M. H**. de Carlan Y.
270	Surface Mechanical Properties of Thin Polymer Films Investigated by AFM in Pulsed Force Mode	**Langmuir**	25	17	9938-9946	0743 7463	Rezende CA. **L ee L-T;** Galembeck F;
271	Tuning the Structure of Thermosensitive Gold Nanoparticle Monolayers	**Journal of Physical Chemistry B**	113	29	9786-9794	1520 6106	Rezende C A; Shan J; **Lee L-T;** Zalczer G; Tenhu H.
272	Kinetically Controlled Synthesis of Hexagonally Close-Packed Cobalt Nanorods with High Magnetic Coercivity	**Advanced Functional Materials**	19	12	1971-1977	1616 301X	Soumare Y; Garcia C; **Maurer T; Chaboussant G; Ott F**; Fievet F; Piquemal J-Y; Viau G
273	Spin-wave modes in Ni nanorod arrays studied by Brillouin light scattering	**Physical Review B**	80	14	144406	1098 0121	Stashkevich A. A. Roussigne Y. Djemia P. Cherif S. M. Evans P. R. Murphy A. P. Hendren W. R. Atkinson R. Pollard R. J. Zayats A. V**. Chaboussant G. Ott F.**
274	Magnetic excitations in (SiO2) Co nano-composite films: Brillouin light scattering study	**Journal of Magnetism and Magnetic Materials**	321	7	876-879	0304 8853	Stashkevich A. A. Roussigne Y. Stognij A. I. Novitskii N. I. Wurtz G. Zayats A. V. Viau G**. Chaboussant G. Ott F.** Lutsev L. V. Djemia P. Kostylev M. P. Belotelov V.
275	Highly crystalline cobalt nanowires with high coercivity prepared by soft chemistry	**Physica Status Solidi a-Applications and Materials Science**	206	4	663-666	1862 6300	Viau G. Garcia C. **Maurer T. Chaboussant G. Ott F**. Soumare Y. Piquemal J. -Y.
276	Polymer-Grafted-Platinum Nanoparticles: From Three-Dimensional Small-Angle Neutron Scattering Study to Tunable Two-Dimensional Array Formation	**Langmuir**	25	1	471-478	0743 7463	**Carrot G**; Gal F; Cremona C; Vinas J; Perez H,
277	Adsorption and Structure of Benzene on Silica Surfaces and in Nanopores	**Langmuir**	25	18	10648-10659	0743 7463	Coasne B; **Alba-Simionesco C; Audonnet F**; Dosseh G; Gubbins Keith E.
278	Asphaltene multilayer growth in porous medium probed by SANS	**European Physical Journal-Special Topics**	167		171-176	1951 6355	Gummel J**;jestin J**; Corvis Y;
279	Non-Electrostatic Building of Biomimetic Cellulose-Xyloglucan Multilayers	**Langmuir**	25	7	3920-3923	0743 7463	Jean B; Heux L; Dubreuil F; Chambat G; **Cousin F,**
280	Palladium Nanowires Synthesized in Hexagonal Mesophases: Application in Ethanol Electrooxidation	**Chemistry of Materials**	21	8	1612-1617	0897 4756	Ksar F; Surendran G; Ramos L;Keita B; Nadjo L ;Prouzet E;Beaunier P ;Hagege A ;Audonnet F ;Remita H,

281	Relation between Solution and Interfacial Properties of Asphaltene Aggregates	**Energy & Fuels**	23	1	306-313	0887 0624	Simon S; **Jestin J**; Palermo T; Barre L
282	Relaxation of the field-induced structural anisotropy in a rotating magnetic fluid	**EuroPhysics letters**	86	1	10005	0295 5075	Wandersman E. Dubois E. **Cousin F**. Dupuis V. Meriguet G. Perzynski R. Cebers A.
283	Diffraction techniques and vibrational spectroscopy opportunities to characterise bones	**Osteoporosis International**	20	6	1065-1075	0937 941X	Bazin D. Chappard C. Combes C. Carpentier X. Rouziere S. **Andre G**. Matzen G. Allix M. Thiaudiere D. Reguer S. Jungers P. Daudon M.
284	Effect of Ga Content on the Instantaneous Structure of Al(1-x)GaxPO4 Solid Solutions at High Temperature	**Chemistry of Materials**	21	2	237-246	0897 4756	Cambon O ;Haines J; Cambon M; Keen D A; Tucker M G; Chapon L; Hansen N K; Souhassou M; **Porcher Florence**;
285	Ferroelectric order stability in the Bi1-xPbxFeO3 solid solution	**Physical Review B**	80	18	184107	1098 0121	Chaigneau J. Haumont R. **Kiat J. M.**
286	Quantification of boron coordination changes between lithium borate glasses and melts by neutron diffraction	**Physics and Chemistry of Glasses-European Journal of Glass Science and Technology Part B**	50	3	195-200	1753 3562	Cormier L; Calas G; **Beuneu B,**
287	Examination of whewellite kidney stones by scanning electron microscopy and powder neutron diffraction techniques	**Journal of Applied Crystallography**	42	part 1	109-115	0021 8898	Daudon M; Bazin D; **Andre G**; Jungers P; **Cousson A**; Chevallier P; Vernon E ;Matzen G
288	Magnetic structure of GdCu6	**Journal of Physics-Condensed Matter**	21	12	126002	0953 8984	Devishvili A; Rotter M ;Doerr M; **Beuneu B.** Behr Guenter
289	Chemical and electronic interface structure of spray pyrolysis deposited undoped and Al-doped ZnO thin films on a commercial Cz-Si solar cell substrate	**Solar Energy Materials and Solar Cells**	93	8	1356-1365	0927 0248	Gabas M. Barrett N. T. Ramos-Barrado J. R. **Gota S**. Rojas T. C. Lopez-Escalante M. C.
290	Evidence for a temperature-driven structural transformation in liquid bismuth	**EuroPhysics letters**	86	3	36004	0295 5075	Greenberg Y. Yahel E. Caspi E. N. Benmore C. **Beuneu B**. Dariel M. P. Makov G.
291	Evidence of local defects in the oxygen excess apatite La-9.67(SiO4)(6)O-2.5 from high resolution neutron powder diffraction	**Journal of Solid State Chemistry**	182	12	3358-3364	0022 4596	Guillot S ;Beaudet-Savignat S; Lambert S; Vannier R-N ;Rousse P; **Porcher F**,
292	The structure of As3Se5Te2 infrared optical glass	**Journal of Alloys and Compounds**	488	1	39-43	0925 8388	Jovari P. Bureau B. Kaban I. Nazabal V. **Beuneu B**. Ruett U.
293	Atomic structure of As2S3-Ag chalcogenide glasses	**Journal of Physics-Condensed Matter**	21	39	395801	0953 8984	Kaban I. Jovari P. Wagner T. Frumar M. Stehlik S. Bartos M. Hoyer W. **Beuneu B.** Webb M. A.
294	Topological and chemical ordering in Co43Fe20Ta5.5B31.5 metallic glass	**Physical Review B**	79	21	212201	1098 0121	Kaban I; Jovari P; Stoica M; Eckert J; Hoyer W; **Beuneu B.**
295	Synthesis calorimetric structural and conductivity studies in a new thallium selenate tellurate adduct compound	**Materials Research Bulletin**	44	8	1792-1796	0025 5408	Ktari L. Abdelhedi M. Bouhlel N. Dammak M. **Cousson A. P.**

296	Neutron structural X-ray powder and vibrational studies of the mixed solid solution rubidium ammonium sulfate tellurate	**Journal of Alloys and Compounds**	476	40 210	54-59	0925 8388	Ktari L. Dammak M. Kolsi A. W**. Cousson A.**
297	structural and dielectric properties of the new mixed solid solution Na-0.26(NH4)(1.74)SO4 center dot Te(OH)(6)	**Annales De Chimie-Science Des Materiaux**	34	3	125-139	0151 9107	Ktari L;Dammak M; **Cousson A**; Mhiri T
298	The role of the Pb2+ 6s lone pair in the structure of the double perovskite Pb2ScSbO6	**Dalton Transactions**	38	28	5453-5459	1477 9226	Larregola S A;Alonso J A; Pedregosa J; C; Martinez-Lope M J; Alguero M; De la Pena-O'shea V; **Porcher F**. Illas F.
299	Short-range order of Cu-Zr metallic glasses	**Journal of Alloys and Compounds**	485	40 210	163-169	0925-8388	Mattern N. Jovari P. Kaban I. Gruner S. Elsner A. Kokotin V. Franz H. **Beuneu B**. Eckert J.
300	KKRAMERS: Kramers-Kronig Analysis using Maximum Entropy for Reflectance Spectroscopy	**Bayesian Inference and Maximum Entropy Methods in Science and Engineering**	1193		413-420	0094 243X	**Papoular Robert J.**
301	A polycrystalline graphite model for the 2175 angstrom interstellar extinction band	**Monthly Notices of the Royal Astronomical Society**	394	4	2175-2181	00358711	**Papoular Robert J.** Papoular Renaud
250	Design of crosslinked hybrid multilayer thin films from azido-functionalized polystyrenes and platinum nanoparticles	**Soft Matter**	5	3	586-592	1744 683X	Al Akhrass S; **Gal F**; Damiron D;Alcouffe P; Hawker C J. **Cousin F; Carrot G**; Drockenmuller E
302	Small-Angle Neutron Scattering Study of Crude Oil Emulsions: Structure of the Oil-Water Interfaces	**Langmuir**	25	7	3985-3990	0743 7463	Alvarez G. **Jestin J.** Argillier J. F. Langevin D.
303	Temperature dependence on structure and dynamics of Bovine Pancreatic Trypsin Inhibitor (BPTI): A neutron scattering study	**Biochimica Et Biophysica Acta-Proteins and Proteomics**	1794	10	1398-1406	1570 9639	Appavou M. -S**. Gibrat G. Bellissent-Funel M. -C**.
304	Micelle formation in beta-casein solutions	**Polymer**	50	25	6024-6031	0032 3861	Aschi a; Calmettes P; Daoud M; Douillard R; Gharbi A;
305	Small angle neutron scattering as fingerprinting of ancient potteries from Sicily (Southern Italy)	**Journal of Applied Physics**	106	5	54904	0021 8979	Barone G. Crupi V. Majolino D. Mazzoleni P. **Teixeira J.** Venuti V.
306	Polystyrene grafting from silica nanoparticles via nitroxide-mediated polymerization (NMP): synthesis and SANS analysis with the contrast variation method	**Soft Matter**	5	19	3741-3753	1744 683X	**Chevigny C**; Gigmes D; Bertin D; **Jestin J; Boue F;**
254	Probing simultaneously the volume and surface structure of nanospheres adsorbed at a solid-liquid interface by GISANS	**European Physical Journal-Special Topics**	167		177-183	1951 6355	**Cousin F. Jestin J. Chaboussant G. Gautrot S. Menelle A. Ott F**.
307	Consequence of Excess Configurational Entropy on Fragility: The Case of a Polymer-Oligomer Blend	**Physical Review Letters**	103	18	185702	0031 9007	Dalle-Ferrier C. Simon S. Zheng W. Badrinarayanan P. Fennell T. Frick B. **Zanotti J. M. Alba-Simionesco C.**

308	Temperature and concentration dependence of SANS spectra of aqueous solutions of short-chain amphiphiles	**European Physical Journal E**	29	1	37-43	1292 8941	D'Arrigo G. Giordano R. **Teixeira J**.
309	Hydrophobic Polyelectrolytes in Better Polar Solvent. Structure and Chain Conformation As Seen by SAXS and SANS	**Macromolecules**	42	24	9568-9580	0024 9297	Essafi W; Spiteri M-N; Williams C; **Boue F**
310	Fluctuations of Ionic Current Through Lipid Bilayers at the Onset of Peptide Attacks and Pore Formation	**Physical Review Letters**	103	18	180601	0031 9007	Fadda G. C. **Lairez D.** Zalczer G.
311	Are sprayed LbL-films stratified? A first assessment of the nanostructure of spray-assembled multilayers by neutron reflectometry	**Comptes Rendus Chimie**	12	1	225-234	1631 0748	Felix O; Zheng Z;**Cousin F**; Decher G
312	Neutron scattering of a floating heavy water bridge	**Journal of Physics D-Applied Physics**	42	6	65502	0022 3727	Fuchs E C. Bitschnau B; Woisetschlaeger J ;Maier E; **Beuneu B ;Teixeira J**
313	Static and dynamic structural probing of swollen polyacrylamide ferrogels	**Soft Matter**	5	13	2614-2624	1744 683X	Galicia J. A. **Cousin F**. Dubois E. Sandre O. Cabuil V. Perzynski R.
314	Ionic Liquid/Oil Microemulsions as Chemical Nanoreactors	**Langmuir**	25	17	9741-9750	0743 7463	Gayet F ;El Kalamouni C; Lavedan P ;Marty J-D;**Brulet A** ;Lauth-de Viguerie N
315	Spontaneous Formation of Nanovesicles in Mixtures of Nonionic and Dialkyl Chain Cationic Surfactants Studied by Surface Tension and SANS	**Langmuir**	25	7	3932-3943	0743 7463	Grillo I. Penfold J. Tucker I. **Cousin F**.
316	Relation between Chemical Structure and Supramolecular Organization of Synthetic Lignin-Pectin Particles	**Biomacromolecules**	10	11	3151-3156	1525 7797	Habrant A; Gaillard C; Ralet M-C; Lairez D; Cathala B.
226	Self-Assembly of Two-Component Gels: Stoichiometric Control and Component Selection	**Chemistry-a European Journal**	15	2	372-379	0947 6539	Hirst A R. Miravet Juan E. Escuder B; **Noirez L;** Castelletto V; Hamley I; W. Smith David K.
317	Foam Films from Thermosensitive PNIPAM and SDS Solutions	**Langmuir**	25	7	3966-3971	0743 7463	Jean B; Lee L-T; Cabane B; Bergeron V
318	Asphaltene Adsorption Mechanisms on the Local Scale Probed by Neutron Reflectivity: Transition from Monolayer to Multilayer Growth above the Flocculation Threshold	**Langmuir**	25	7	3991-3998	0743 7463	Jouault N; Corvis Y; Cousin F; Jestin J; Barre L;
319	Compression of random coils due to macromolecular crowding	**Physical Review E**	79	3	31910	1539 3755	Le Coeur C. Deme B. Longeville S.
320	Structure and dynamics in clays from molecular simulations	**Geochimica Et Cosmochimica Acta**	73	13	A837-A837	0016 7037	Marry V. Rotenberg B. Dufreche J. -F. Malikova N. Vuilleumier R. Turq P.
321	Solution Structure of NaNO3 in Water: Diffraction and Molecular Dynamics Simulation Study	**Journal of Physical Chemistry B**	113	13	4054-4064	1520 6106	Megyes Tuende; Balint Szaboles; Peter E; Grosz T; Bako I; Krienke H;Bellissent-Funel M-C
262	Shear-Induced Isotropic to Nematic Transition of Liquid-Crystal Polymers: Identification of Gap Thickness and Slipping Effects	**Langmuir**	25	9	5248-5252	0743 7463	**Mendil-Jakani Hakima; Baroni Patrick; Noirez Laurence;**

322	Glassy properties and viscous slowing down: An analysis of the correlation between nonergodicity factor and fragility (vol 129 194513 2008)	**Journal of Chemical Physics**	131	24	249902	0021 9606	Niss K; Dalle-Ferrier C; Giordano V M. Monaco G; Frick B; Alba-Simionesco C,
263	The missing parameter in rheology: hidden solid-like correlations in viscous liquids polymer melts and glass formers	**Polymer International**	58	8	962-968	0959 8103	**Noirez L; Mendil-Jakani H; Baroni P**
265	New Light on Old Wisdoms on Molten Polymers: Conformation Slippage and Shear Banding in Sheared Entangled and Unentangled Melts	**Macromolecular Rapid Communications**	30	20	1709-1714	1022 1336	**Noirez L; Mendil-Jakani H; Baroni P**
323	Thermoluminescence study of the amorphisation of hexagonal ice by irradiation at 77 K	**Molecular Physics**	107	23-24	2547-2550	0026 8976	Rey L; Teixeira J;
270	Surface Mechanical Properties of Thin Polymer Films Investigated by AFM in Pulsed Force Mode	**Langmuir**	25	17	9938-9946	0743 7463	Rezende C A. **Lee L-T**; Galembeck F,
271	Tuning the Structure of Thermosensitive Gold Nanoparticle Monolayers	**Journal of Physical Chemistry B**	113	29	9786-9794	1520 6106	Rezende C A. Shan J; **Lee L-T**; Zalczer G; Tenhu H
324	The impact of hydration water on the dynamics of side chains of hydrophobic peptides: From dry powder to highly concentrated solutions	**Journal of Chemical Physics**	130	23	235101	0021 9606	Russo D; Teixeira J; Ollivier J;
325	Spatial Structure and Composition of Polysaccharide-Protein Complexes from Small Angle Neutron Scattering	**Biomacromolecules**	10	6	1346-1357	1525 7797	Schmidt I. Cousin F. Huchon C. Boue F. Axelos M. A. V.
326	Creation of dense polymer brush layers by the controlled deposition of an amphiphilic responsive comb polymer	**Polymer**	50	20	4829-4836	0032 3861	Tomlinson M R. Cousin F;Geoghegan Mark
327	Formation and Self-Organization Kinetics of alpha-CD/PEO-Based Pseudo-Polyrotaxanes in Water. A Specific Behavior at 30 degrees C	**Langmuir**	25	15	8723-8734	0743 7463	Travelet C; Schlatter G; Hebraud P;l Brochon **C; Lapp** A; Hadziioannou G.
328	Molecular dynamics in hydrated sodium alginate by quasielastic and elastic neutron scattering	**Chemical Physics**	365	40 210	30-37	0301 0104	Tripadus V. **Zanotti J. M**. Statescu M. Constantinescu O. Mitra S. Aranghel D.
329	The structural variety of DNA-DPPC-divalent metal cation aggregates: SAXD and SANS study	**European Physical Journal-Special Topics**	167		191-197	1951 6355	Uhrikova D. Pullmannova P. Kucerka N. Funari S. S. **Teixeira J**. Balgavy P.
330	Interaction of short-fragmented DNA with dipalmitoylphosphatidylcholine bilayers in presence of zinc	**General Physiology and Biophysics**	28	2	146-159	0231 5882	Uhrikova D; Pullmannova P; Bastos M; Funari S S. **Teixeira J**
331	Rate of Permeabilization of Giant Vesicles by Amphiphilic Polyacrylates Compared to the Adsorption of These Polymers onto Large Vesicles and Tethered Lipid Bilayers	**Langmuir**	25	13	7506-7513	0743 7463	Vial F. **Cousin F**. Bouteiller L. Tribet C.

332	Effect of Hydrogen-Bonding Complexation on the Interfacial Behavior of Poly(isoprene)-b-Poly(ethylene oxide) and Poly(isoprene)-b-Poly(acrylic acid) Langmuir Monolayers	**Journal of Physical Chemistry B**	113	3	739-744	1520 6106	Xie DH; Rezende C A. Liu GM; Pispas S; Zhang GZ ;**Lee Lay-Theng**
333	Small Angle Neutron Scattering from the Highly Interacting Polymer Mixture TMPC/PSd: No Evidence of Spatially Dependent chi Parameter	**Macromolecules**	42	24	9528-9536	0024 9297	Cabral Joao T. Higgins Julia S.
334	Inhibition of viral group-1 and group-2 neuraminidases by oseltamivir: A comparative structural analysis by the ScrewFit algorithm	**Biophysical Chemistry**	141	1	117-123	0301 4622	Calligari P A. Kneller G R. Giansanti A; Ascenzi P; Porrello A; Bocedi A.
335	Ergodicity breaking in strong and network-forming glassy systems	**Physical Review B**	79	17	172201	1098 0121	Caponi S. Zanatta M. Fontana A. Bove L. E. Orsingher L. Natali F. Petrillo C. Sacchetti F.
336	Magnetic-Field-Induced Soft-Mode Quantum Phase Transition in the High-Temperature Superconductor La1.855Sr0.145CuO4: An Inelastic Neutron-Scattering Study	**Physical Review Letters**	102	17	177006	0031 9007	Chang J. Christensen N. B. Niedermayer Ch. Lefmann K. Ronnow H. M. McMorrow D. F. Schneidewind A. Link P. Hiess A. Boehm M. Mottl R. **Pailhes S.** Momono N. Oda M. Ido M. Mesot J.
337	Electronic structure of La1.48Nd0.4Sr0.12CuO4 probed by high- and low-energy angle-resolved photoelectron spectroscopy	**Physical Review B**	80	9	94503	1098 0121	Claesson T. Mansson M. Onsten A. Shi M. Sassa Y. Pailhes S. Chang J. Bendounan A. Patthey L. Mesot J. Muro T. Matsushita T. Kinoshita T. Nakamura T. Momono N. Oda M. Ido M. Tjernberg O.
338	Strength of the spin-fluctuation-mediated pairing interaction in a high-temperature superconductor	**Nature Physics**	5	3	217-221	1745 2473	Dahm T. Hinkov V. Borisenko S. V. Kordyuk A. A. Zabolotnyy V. B. Fink J. Buechner B. Scalapino D. J. Hanke W. Keimer B.
339	Freezing of water adsorbed on hydrophobic and activated soot particles	**Chemical Physics Letters**	480	40 333	247-252	0009 2614	Demirdjian B; Ferry D; Suzanne J; Popovicheva O B. Persiantseva N M. Kamaev A V. Shonija N K. Zubareva N A.
340	Cellular Electron Microscopy Imaging Reveals the Localization of the Hfq Protein Close to the Bacterial Membrane	**Plos One**	4	12	e8301	1932 6203	Diestra E; Cayrol B; **Arluison V**;Risco C.
341	Structural studies of water in a confined hydrophobic environment	**Journal of Physics: Conference Series**			012010 (3 pp.)		Dore JC; Burian A; Castricum H P
342	Heptane adsorption in silicalite-1: Molecular dynamics simulation	**Microporous and Mesoporous Materials**	122	40 238	61-71	1387 1811	Floquet N; Simon J M ;Coulomb J P; Bellat J P; Weber G; **Andre G.**
343	Stabilization and controlled association of superparamagnetic nanoparticles using block copolymers	**Conf proceeding**	321		667-670	0304 8853	Frka-Petesic B; Fresnais J; Berret J-F; Dupuis V; Perzynski R; Sandre O.

344	Structure Microstructure Composition and Properties of Lanthanum Lithium Titanates and some Substituted Analogues	**Zeitschrift Fur Anorganische Und Allgemeine Chemie**	635	15	2363-2373	0044 2313	Garcia-Martin S; Amador U; Morata-Orrantia A; Rodriguez-Carvajal J; Alario-Franco M A
345	Surface and Intercalation Chemistry of Polycarboxylate Copolymers in Cementitious Systems	**Journal of the American Ceramic Society**	92	11	2471-2488	0002 7820	Giraudeau C; de Lacaillerie J-B; d'Espinose ;Souguir Z; Nonat A; Flatt R J.
346	Finite-Time Fluctuations in the Degree Statistics of Growing Networks	**Journal of Statistical Physics**	137	40 334	1117-1146	0022 4715	Godreche C. Grandclaude H. Luck J. M.
347	Salt-induced changes in the growth of polyelectrolyte layers of poly(diallyl-dimethylammonium chloride) and poly(4-styrene sulfonate of sodium)	**SOFT MATTER**	5	10	2130-2142	1744 683X	Guzman E; Ritacco H; Rubio JEF; Rubio RG; Ortega F
348	Micelles and Polymersomes Obtained by Self-Assembly of Dextran and Polystyrene Based Block Copolymers	**Biomacromolecules**	10	1	32-40	1525 7797	Houga C; Giermanska J; Lecommandoux S; Borsali R; Taton D; Gnanou Y; Le Meins J-F;
349	Effects of Si addition on the microstructure and the hydrogen storage properties of Ti26.5V45Fe8.5Cr20Ce0.5 BCC solid solution alloys	**International Journal of Hydrogen Energy**	34	23	9385-9392	0360-199	Huang Z ;Cuevas F; Liu XP; Jiang LJ; Wang SM; Latroche M; Du J.
350	Transmission thresholds in time-periodically driven nonlinear disordered systems	**EuroPhysics letters**	86	1	10009	0295 5075	Johansson M. Kopidakis G. Lepri S**. Aubry S**.
351	Crystal chemistry and Calphad modelling of the chi phase	**Progress in Materials Science**	54	7	945-980	0079 6425	Joubert J. -M. Phejar M.
352	Synthesis and Characterization of Large-Core Star Polymers and Polymer Networks: Effects of Arm Length and Composition of the Cross-Linking Mixture	**Macromolecular Chemistry and Physics**	210	5	367-376	1022 1352	Kafouris D; Gradzielski M; Patrickios C S.
353	Anomalous asymmetry in the Fermi surface of the high-temperature superconductor YBa2Cu4O8 revealed by angle-resolved photoemission spectroscopy	**Physical Review B**	80	10	100505	1098 0121	Kondo Takeshi Khasanov R. Sassa Y. Bendounan A**. Pailhes S**. Chang J. Mesot J. Keller H. Zhigadlo N. D. Shi M. Bukowski Z. Karpinski J. Kaminski A.
354	Formation of polymer brushes inside cylindrical pores: A computer simulation study	**Journal of Chemical Physics**	131	4	44901	0021 9606	Koutsioubas A G. Spiliopoulos N; Anastassopoulos D L. Vradis A A. Toprakcioglu C.
355	Correlations of structural magnetic and dielectric properties of undoped and doped CaCu3Ti4O12	**European Physical Journal B**	72	2	173-182	1434 6028	Krohns S. Lu J. Lunkenheimer P. Brize V. Autret-Lambert C. Gervais M. Gervais F. **Bouree F. Porcher F**. Loidl A.
356	Areas of Monounsaturated Diacylphosphatidylcholines	**Biophysical Journal**	97	7	1926-1932	0006-495	Kucerka N; Gallova J; Uhrikova D; Balgavy P; Bulacu M; Marrink S-J; Katsaras J.
357	Electron-doped Sm1-xSrxMnO3 perovskite manganites: Crystal and magnetic structures and physical properties	**Journal of Magnetism and Magnetic Materials**	321	17	2601-2606	0304 8853	Kurbakov A. I. Martin C. Maignan A.

358	Cobalt charge states in sodium cobaltates at intermediate dopings	**Journal of Alloys and Compounds**	480	1	144-146	0925 8388	Lang G. Bobroff J. Alloul H. Mukhamedshin I. Collin G. Blanchard N.
359	Multi-phase spin crossover in Fe(ptz)(6)(BF4)(2)	**Physica B-Condensed Matter**	404	40 271	379-381	0921 4526	Lemee-Cailleau M-H; Ecolivet C; Ouladdiaf B; **Moussa F**; Letard J-F
360	Phase behaviour and structure of stable complexes of oppositely charged polyelectrolytes	**EuroPhysics letters**	85	5	58001	0295 5075	Mengarelli V. Auvray L. Zeghal M.
361	An eigenvalue method for computing the largest relaxation time of disordered systems	**Journal of Statistical Mechanics-Theory and Experiment**			P12017	1742 5468	Monthus C; Berche B; Chatelain C
362	Symmetry relations for multifractal spectra at random critical points	**Journal of Statistical Mechanics-Theory and Experiment**			P12002	1742 5468	Monthus C; Berche B; Chatelain C.
363	Hierarchical Ordering of Sugar Based Amphiphiles	**conference proceedings**	500		155-165	1542 1406	Motta S; Raudino A; Brocca P; Corti M; Cantu L; Del Favero E.
364	Ternary phase diagrams of a thermoreversible chelating non-ionic surfactant	**Physical Chemistry Chemical Physics**	11	15	2700-2707	1463 9076	Nave S. Testard F. Coulombeau H. . Baczko K. . Larpent C. . Zemb Th.
365	Effect of flow fluctuations and nonflow on elliptic flow methods	**Nuclear Physics A**	830		279C-282C	0375 9474	Ollitrault J-Y; Poskanzer A M; Voloshin S A.
366	Insight into Ramsdellite Li2Ti3O7 and Its Proton-Exchange Derivative	**Inorganic Chemistry**	48	16	7659-7666	0020 1669	Orera ; Azcondo M.T Garcia-Alvarado F; Sanz J; Sobrados I; Rodriguez-Carvajal J; Amador U.
367	First Measurement of the Neutron beta Asymmetry with Ultracold Neutrons	**Physical Review Letters**	102	1	12301	0031 9007	Pattie R. W. Jr. Anaya J. Back H. O. Boissevain J. G. Bowles T. J. Broussard L. J. Carr R. Clark & al
368	Silica Nanoparticles Dispersed in a Self-assembled Viscoelastic Matrix: Structure Rheology and Comparison to Reinforced Elastomers	**Brazilian Journal of Physics**	39	1A	198-204	0103 9733	Puech N; Mora S; Porte G; Phou T; Grillo I; Oberdisse J.
369	Room Temperature Dynamic Polymers Based on Diels-Alder Chemistry	**Chemistry-a European Journal**	15	8	1893-1900	0947 6539	Reutenauer P. Buhler E. Boul P. J. Candau S. J. Lehn J-M.
370	SANS study of the self-organization of gradient copolymers with ligand groups in supercritical CO2	**Soft Matter**	5	24	4962-4970	1744 683X	Ribaut T; Oberdisse J; **Annighofer B**; Stoychev I; Fournel B; Sarrade S; Lacroix-Desmazes P.
371	SDS Interactions with Hydrophobically End-Capped Poly(ethylene oxide) Studied by C-13 NMR and SANS	**Macromolecules**	42	14	5226-5235	0024 9297	Rufier C; Collet A; Viguier M; Oberdisse J; Mora S.
372	Correlation between chemical composition and size of very small oxide particles in the MA957 ODS ferritic alloy	**Journal of Nuclear Materials**	384	2	115-118	0022 3115	Sakasegawa H. Chaffron L. Legendre F. Boulanger L. Cozzika T. Brocq M. de Carlan Y.
373	Evaluation of threshold stress of the MA957 ODS ferrtic alloy	**proceedings**	386		511-514	0022 3115	Sakasegawa H. Chaffron L. Legendre F. Brocq M. Boulanger L. Poissonnet S. de Carlan Y. Bechade J. Cozzika T. Malaplate J.

374	Characterization of thin-foil ultracold neutron detectors	**Nuclear Instruments & Methods in Physics Research Section A**	603	3	421-428	0168 9002	Sallaska A. L. Hoedl S. Garcia A. Melconian D. Young A. R. Geltenbort P. Sjue S. K. L. Holley A. T.
375	Polysaccharide-block-polypeptide Copolymer Vesicles: Towards Synthetic Viral Capsids	**Angewandte Chemie-International Edition**	48	14	2572-2575	1433 7851	Schatz C; Louguet S; Le Meins J-F; Lecommandoux S.
376	Neutron Reflectivity Study of Free-End Distribution in Polymer Brushes	**Macromolecules**	42	16	6209-6214	0024 9297	Spiliopoulos N; Koutsioubas A G; Anastassopoulos DL . Vradis A,A. Toprakcioglu C; **Menelle Al**; Mountrichas G; Pispas S.
377	Soft phonon columns on the edge of the Brillouin zone in the relaxor PbMg1/3Nb2/3O3	**Physical Review B**	79	22	224301	1098 0121	Swainson I. P. Stock C. Gehring P. M. Xu Guangyong Hirota K. Qiu Y. Luo H. Zhao X. Li J. -F. Viehland D.
378	Dynamics of hydration water in proteins	**General Physiology and Biophysics**	28	2	168-173	0231 5882	**Teixeira Jose**
379	Magnetocaloric effect in the ternary silicide Gd3NiSi2	**Intermetallics**	17	3	115-119	0966 9795	Tence S. Gorsse S. Gaudin E. Chevalier B.
380	Reversible constitutional switching between macrocycles and polymers induced by shape change in a dynamic covalent system	**New Journal of Chemistry**	33	2	271-292	1144 0546	Ulrich S; Buhler E; Lehn J-M
381	The measurement of the incoherent neutron scattering length of the deuteron	**Nuclear Instruments & Methods in Physics Research Section A**	611	3	231-234	0168 9002	van den Brandt B. Glaettli H. Hautle P. Konter J. A. Piegsa F. M. Zimmer O.
382	Monoalkyl Poly(2-methyl-2-oxazoline) Micelles. A Small-Angle Neutron Scattering Study	**Journal of Physical Chemistry B**	113	41	13536-13544	1520 6106	Volet G; Auvray L; Amiel C;
383	Signature of checkerboard fluctuations in the phonon spectra of a possible polaronic metal La1.2Sr1.8Mn2O7	**Nature Materials**	8	10	798-802	1476 1122	Weber F. Aliouane N. Zheng H. Mitchell J. F. Argyriou D. N. Reznik D.
384	Testing the itinerancy of spin dynamics in superconducting Bi2Sr2CaCu2O8+delta	**Nature Physics**	5	9	642-646	1745 2473	Xu Guangyong ;Gu G. D. Huecker M; Fauque B; Perring T. G. Regnault L. P. Tranquada J. M.
385	A Novel Method for Studying the Dynamics of Polymers Confined in Spherical Nanoparticles in Nanoblends	**Macromolecules**	42	6	2190-2197	0024 9297	Yousfi M; Porcar L; Lindner P; **Boue F;** Rharbi Y
386	Involvement of HFq protein in the post-transcriptional regulation of E. coli bacterial cytoskeleton and cell division proteins	**Cell Cycle**	8	15	2470-2472	1538 4101	Zambrano N ;Guichard P ;. Bi Yanzhen; Cayrol B; Marco S; **Arluison V**
387	X-ray scattering on charge-density-wave superconductor 2H-NbSe2	**journal physics; conf series**	150		42029	1742 6588	Eremenko V; V Sirenko V Ibulaev M Shvedun and **G Andre**

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388	Interplay between magnetism and superconductivity in HoNi2B2C revisited	**New Journal of Physics**	12		43318	1367 2630	Alleno E. Singh S. Dhar S. K. **Andre G**.
389	Two-Dimensional Orbital-Like Magnetic Order in the High-Temperature La2-xSrxCuO4 Superconductor	**Physical Review Letters**	105	2	27004	0031 9007	Baledent V. Fauque B. **Sidis Y.** Christensen N. B. **Pailhes S**. Conder K. Pomjakushina E. Mesot J. **Bourges P**.
390	Field evolution of the magnetic structures in Er2Ti2O7 through the critical point	**Physical Review B**	82	10	104431	1098 0121	**Cao H. B. Mirebeau I. Gukasov A**. Bonville P. Decorse C.
391	From antiferromagnetic to ferromagnetic ordering induced by hydrogenation of the compounds NdCoSi and NdCoGe	**journal physics; conf series**	200		32012	1742 6588	Chevalier B;S Tencé **G André** S F Matar and E Gaudin
392	Proton Dynamics and Structural Modifications in the Protonic Conductor Perovskites	**journal of the physical society of japan**	79	SUP A	01-juin	0031 9015	Colomban P;**Daniel L**; Aneta Slodczyk ;G Andre; Oumaya Zaafrani; O Lacroix; S Willemin ; BSala.
393	Zigzag ladders with staggered magnetic chirality in the S=3/2 compound beta-CaCr2O4	**Physical Review B**	81	21	214405	1098 0121	**Damay F**; Martin C; Hardy V; Maignan A; **Andre G** ;Knight K ;Giblin Sean R. Chapon L;
394	Phonon dispersion and low-energy anomaly in CaC6 from inelastic neutron and x-ray scattering experiments	**Physical Review B**	81	10	104519	1098 0121	D'Astuto M; Calandra M; Bendiab N ;Loupias G; Mauri F; Zhou Shuyun; Graf J; Lanzara A; Emery N; Herold C; Lagrange P. **Petitgrand D** ;Hoesch Moritz
395	Investigations for the growth of large underdoped Bi2Sr2CaCu2O8+delta single crystals	**Journal of Crystal Growth**	312	3	466-470	0022 0248	De Almeida-Didry S; Giovannelli F;Monot-Laffez I ;**Sidis Y ;Bourges P;** Sohoenstein F; Pruvost S; Pignon B;
396	Neutron scattering evidence for a lattice displacement at the charge ordering transition of (TMTTF)(2)PF6	**Physica B Condensed Matter**	405	11	S95-S97	0921 4526	Foury-Leylekian P; **Petit S; Andre G;** Moradpour A; Pouget JP
397	Correlation between crystallographic superstructure and magnetic structures in finite magnetic fields: A neutron study on a single crystal of Ho2PdSi3	**Physical Review B**	82	17	174401	1098 0121	Frontzek M; Tang F; Link P; Schneidewind A; Hoffman JU; **Mignot JM**; Loewenhaupt M
398	A Generic Phase Diagram for R2PdSi3 (R = Heavy Rare Earth)?	**Journal phys; conf series**	251		12026	1742 6588	Frontzek M;F Tang Frontzek M P Link A Schneidewind **;J M Mignot** J U Hoffman and M Loewenhaupt
399	Size-dependent magnetic behavior and spin-wave gap in MnF2 epitaxial films with orthorhombic crystal structure	**Journal of Magnetism and Magnetic Materials**	322	6	664-667	0304 8853	Golosovsky I. V. Sokolov N. S**. Gukasov A. Bataille A**. Boehm M. Nogues J.
400	Interplay between crystalline chirality and magnetic structure in Mn1-xFexSi	**Physical Review B**	81	1	12408	1098 0121	Grigoriev S. V. Chernyshov D. Dyadkin V. A. Dmitriev V. Moskvin E. V. **Lamago D**. Wolf Th. Menzel D. Schoenes J. Maleyev S. V. Eckerlebe H.

401	Noncentrosymmetric cubic helical ferromagnets Mn1-y Fe (y) Si and Fe1-x Co (x) Si	**Physics of the Solid State**	52	5	907-913	1063 7834	Grigoriev S. V. Dyadkin V. A. Maleyev S. V. Menzel D. Schoenes J. **Lamago D**. Moskvin E. V. Eckerlebe H.
402	Determination of atomic site susceptibility tensors from neutron diffraction data on polycrystalline samples	**Journal of Physics-Condensed Matter.**	22	50	502201	0953 8984	**Gukasov A;** Brown PJ
403	Neutron scattering study of the magnetic phase diagram of underdoped YBa2Cu3O6+x	**New journal of Physics.**	12		105006	1367 2630	Haug D; Hinkov V; **Sidis Y; Bourges P**; Christensen NB; Ivanov A; Keller T; Lin CT; Keimer B
404	Superconductivity and electronic liquid-crystal states in twin-free YBa2Cu3O6+x studied by neutron scattering	**European Physical Journal-Special Topics**	188	1	113-129	1951 6355	Hinkov V; Lin CT; Raichle M; Keimer B; **Sidis Y; Bourges P; Pailhes S**; Ivanov A
405	Bridging Multiferroic Phase Transitions by Epitaxial Strain in BiFeO3	**Physical Review Letters**	105	5	57601	0031 9007	Infante I. C. Lisenkov S. Dupe B. Bibes M. Fusil S. Jacquet E. Geneste G. **Petit S**. Courtial A. Juraszek J. Bellaiche L. Barthelemy A. Dkhil B.
406	Normal-state spin dynamics and temperature-dependent spin-resonance energy in optimally doped BaFe1.85Co0.15As2	**Nature Physics**	6	3	178-181	1745 2473	Inosov D. S. Park J. T. **Bourges P**. Sun D. L. **Sidis Y**. Schneidewind A. Hradil K. Haug D. Lin C. T. Keimer B. Hinkov V.
407	Chirality in Dynamic Supramolecular Nanotubes Induced by a Chiral Solvent	**Chemistry-a European Journal**	16	1	173-177	0947 6539	Isare Benjamin Linares Mathieu Zargarian Loussine Fermandjian Serge Miura Motofumi Motohashi Shigeyasu Vanthuyne Nicolas Lazzaroni Roberto Bouteiller Laurent
408	Competition between ferromagnetic and antiferromagnetic ground states in multiferroic BiMnO3 at high pressures	**Physical Review B**	82	1	14401	1098 0121	Kozlenko D. P. Belik A. A. Kichanov S. E. **Mirebeau I.** Sheptyakov D. V. Straessle Th. Makarova O. L. Belushkin A. V. Savenko B. N. Takayama-Muromachi E.
409	Neutron Diffraction Investigation of Pb0.5La0.5FeO3	**AIP conf proc**	1203		205-210	2158 3226	Krezhov K;a D. Kovacheva S. Kovachev b E. Svabc; **G. Andre a**nd F. Porcherd
410	Lattice dynamics in the itinerant helical magnet MnSi	**Physical Review B**	82	14	144307	1098 0121	**Lamago D**; Clementyev ES; Ivanov AS; Heid R; **Mignot JM**; Petrova AE; Alekseev PA
411	Measurement of strong phonon softening in Cr with and without Fermi-surface nesting by inelastic x-ray scattering	**Physical Review B**	82	19	195121	1098 0121	**Lamago D**; Hoesch M; Krisch M; Heid R; Bohnen KP; Boni P; Reznik D
412	Magnetic excitations in multiferroic LuMnO3 studied by inelastic neutron scattering	**Physical Review B**	82	18	184420	1098 0121	Lewtas HJ; Boothroyd AT; Rotter M; Prabhakaran D; Muller H; Le MD; Roessli B; Gavilano J; **Bourges P**
413	Hidden magnetic excitation in the pseudogap phase of a high-T-c superconductor	**Nature**	468	7321	283-285	0028 0836	Li Y; Baledent V; Yu G; Barisic N; Hradil K; Mole RA; Sidis Y; Steffens P; Zhao X; **Bourges P;** Greven M
414	Macroscopic Quantum Coherence of the Spin Triplet in the Spin-Ladder Compound Sr14Cu24O41	**Physical Review Letters**	105	9	97702	0031 9007	Lorenzo J. E. Regnault L. P. Boullier C. Martin N. **Moudden A. H**. Vanishri S. Marin C. Revcolevschi A.

415	Synthesis Magnetic Structure and Properties of a Layered Cobalt-Hydroxide Ferromagnet Co-5(OH)(6)(SeO4)(2)(H2O)(4)	**Inorganic Chemistry**	49	6	3019-3024	0020 1669	Maalej Wassim Vilminot Serge **Andre Gilles** Kurmoo Mohamedally
416	Magnetic properties and neutron diffraction study of (NixMnl-x)3[Cr(CN)6]2 molecule-based magnets	**Journal Physics.Conf Series**	200		22035	1742 6588	Mihalik M;V Kaveanski Mihalik M S Matias M Zentkov O Prokhenko and **G André**
417	Spin ice and soft spin ice ground state under high pressure: comparative study by neutron scattering	**High Pressure Research**	30	1	03-nov	0895 7959	**Mirebeau I**. Goncharenko I. Cao H.
418	Neutron study of the short range order inversion in Fe1-xCrx	**Physical Review B**	82	10	104203	1098 0121	**Mirebeau I**. Parette G.
419	Pressure dependence of phonon modes across the tetragonal to collapsed-tetragonal phase transition in CaFe2As2	**Physical Review B**	81	14	114502	1098 0121	Mittal R. Heid R. Bosak A. Forrest T. R. Chaplot S. L. **Lamago D**. Reznik D. Bohnen K. -P. Su Y. Kumar N. Dhar S. K. Thamizhavel A. Rueegg Ch. Krisch M. McMorrow D. F. Brueckel Th. Pintschovius L.
420	Spin dynamics in the electron-doped Kondo insulator Yb1-xZrxB12 (x=0.2)	**Physical Review B**	81	12	125108	1098 0121	Nemkovski K. S. Alekseev P. A**. Mignot J. -M.** Goremychkin E. A. Nikonov A. A. Parfenov O. E. Lazukov V. N. Shitsevalova N. Yu. Dukhnenko A. V.
421	Spin dynamics in Yb- and Sm-based systems with the nonmagnetic ground state	**Physics of the Solid State**	52	5	936-940	1063 7834	Nemkovski K. S. Alekseev P. A. **Mignot J. -M**. Lazukov V. N.
422	Enhanced drug loading in polymerized micellar cargo	**Organic & Biomolecular Chemistry**	8	17	3902-3907	1477 0520	Ogier J; Arnauld T; **Carrot G**; Lhumeau A ;Delbos J-M; Boursier C; Loreau O; Lefoulon F; Doris E;
423	Comment on "Preeminent Role of the Van Hove Singularity in the Strong-Coupling Analysis of Scanning Tunneling Spectroscopy for Two-Dimensional Cuprate Superconductors"	**Physical Review Letters**	105	9	99701	0031 9007	**Onufrieva Flora Pfeuty Pierre**
424	Symmetry of spin excitation spectra in the tetragonal paramagnetic and superconducting phases of 122-ferropnictides	**Physical Review B**	82	13	134503	1098 0121	Park JT; Inosov DS; Yaresko A; Graser S; Sun DL; **Bourges Ph; Sidis Y;** Li Yuan Kim JH; Haug D. Ivanov A. Hradil K. Schneidewind A. Link P. Faulhaber E. Glavatskyy I. Lin C. T. Keimer B. Hinkov V.
425	Spin dynamics in the geometrically frustrated multiferroic CuCrO2	**Physical Review B**	81	10	104411	1098 0121	Poienar M. **Damay F.** Martin C. **Robert J. Petit S.**
426	Long-range order and low-energy magnetic excitations in CeRu2Al10 studied via neutron scattering	**Physical Review B**	82	10	100404	1098 0121	**Robert J; Mignot J-M; Andre G**; Nishioka Takashi Kobayashi Riki Matsumura Masahiro Tanida Hiroshi Tanaka Daiki Sera Masafumi
427	Neutron diffraction study of the high magnetic field phase diagram of La-doped PrB6	**journal physics ; conf series**	200		12166	1742 6588	**Robert Julien;Jean-Michel Mignot** M Sera and F Iga
428	A neutron powder diffraction study of the helimagnetic structure of TlCo2Se2-xSx	**Journal of Magnetism and Magnetic Materials**	322	6	681-685	0304 8853	Ronneteg S ;Berger R; **Andre G;**

429	Pressure-Induced Structural Transition in LuFe2O4: Towards a New Charge Ordered State	**Physical Review Letters**	105	23		0031 9007	Rouquette J;J. Haines;A. Al-Zein;P. Papet;**F. Damay**;J. Bourgeois;T. Hammouda;F. Dore;A. Maignan;M. Hervieu;C. Martin
430	Lattice dynamics in ZrB12 and LuB12: Ab initio calculations and inelastic neutron scattering measurements	**Physical Review B**	82	2	24302	1098 0121	Rybina A. V. Nemkovski K. S. Alekseev P. A. **Mignot J. -M.** Clementyev E. S. Johnson M. Capogna L. Dukhnenko A. V. Lyashenko A. B. Filippov V. B.
431	Field-induced magnetic structures in Tb2Ti2O7 at low temperatures: From spin-ice to spin-flip structures	**Physical Review B**	82	17	174406	1098 0121	Sazonov AP; **Gukasov A; Mirebeau I; Cao H**; Bonville P; Grenier B
432	Incommensurate Magnetic Order and Dynamics Induced by Spinless Impurities in YBa2Cu3O6.6	**Physical Review Letters**	105	3	37207	0031 9007	Suchaneck A. Hinkov V. Haug D. Schulz L. Bernhard C. Ivanov A. Hradil K. Lin C. T. **Bourges P**. Keimer B. **Sidis Y**.
433	Neutron diffraction study of magnetic structures in single crystal Ho2PdSi3 in magnetic fields up to 5 T	**journal physics conf series**	2010		12017	1742 6588	Tang Fei;Peter Link Matthias Frontzek;Jean-Michel Mignot Jens-Uwe Hoffmann Wolfgang Loser and Michael Loewenhaupt
434	Magnetic structures of the ternary silicide Nd6Ni1.67Si3	**Journal physics; conf series**	200		32074	1742 6588	Tencé S;G André; E Gaudin F Bourée and B Chevalier
435	Hydrogenation Inducing Ferromagnetism in the Ternary Antiferromagnet NdCoSi	**Inorganic Chemistry**	49	11	4836-4842	0020 1669	Tence S; Matar S F. **Andre G**; Gaudin Et; Chevalier B;
436	Spin-Flop Transition and Magnetocaloric Effect through Disconnected Magnetic Blocks in Co-III/Co-IV Oxybromides	**Chemistry of Materials**	22	12	3807-3816	0897 4756	Toulemonde O; Roussel P; Isnard O; **Andre G**; Mentre O;
437	Magnetoelastic coupling in the frustrated antiferromagnetic triangular lattice CuMnO2	**Physical Review B**	82	9	94404	1098 0121	Vecchini C. Poienar M. Damay F. Adamopoulos O. Daoud-Aladine A. Lappas A. Perez-Mato J. M. Chapon L. C. Martin C.
438	Giant Magnetic Hardness in the Synthetic Mineral Ferrimagnet K2Co3II(OH)(2)(SO4)(3)(H2O)(2)	**Chemistry of Materials**	2213	13	4090-4095	0897 4756	Vilminot S; Baker P J. Blundell SJ; Sugano Tadashi; **Andre G**; Kurmoo Mohamedally,
439	Magnetic resonance in the model high-temperature superconductor HgBa2CuO4+delta	**Physical Review B**	81	6	64518	1098 0121	Yu G. Li Y. Motoyama E. M. Zhao X. Barisic N. Cho Y. **Bourges P**. Hradil K. Mole R. A. Greven M.
440	Two- and three-dimensional magnetic correlations in the spin-1/2 square-lattice system Zn2VO(PO4)(2)	**Physical Review B**	82	9	94412	1098 0121	Yusuf S. M. Bera A. K. Kini N. S. **Mirebeau I. Petit S**.
441	Influence of FSSW parameters on fracture mechanisms of 5182 aluminium welds	**Journal of Materials Processing Technology**	210	11	1429-1435	0924 0136	Bozzi S. Helbert-Etter A. L. Baudin T. **Klosek V**. Kerbiguet J. G. Criqui B.
442	Structural static and dynamic magnetic properties of Co2MnGe thin films on a sapphire a-plane substrate	**journal of applied physics**	108	6	63926	0021 8979	Belmeguenai M; **Zighem F;** Chauveau T Faurie D Roussigne Y Cherif SM Moch P Westerholt K Monod P
391	From antiferromagnetic to ferromagnetic ordering induced by hydrogenation of the compounds NdCoSi and NdCoGe	**journal physics; conf series**	200		32012	1742 6588	Chevalier B;S Tencé **G André** S F Matar and E Gaudin

443	Orientation stress field analysis in polycrystalline bcc steel using neutron diffraction	**Acta Materialia**	58	2	499-509	1359 6454	Dakhlaoui R. **Klosek V. Mathon M. H**. Marini B.
444	The Role of Chain Length in Nonergodicity Factor and Fragility of Polymers	**Macromolecules**	43	21	8977-8984	0024 9297	Dalle-Ferrier C; Niss K; Sokolov AP; Frick B; Serrano J; **Alba-Simionesco C**
445	An investigation of the polytypical structure of Sr0.2Ba0.8CoO3-delta by neutron powder diffraction	**Zeitschrift Fur Kristallographie**	225	5	209-215	0044 2968	De la Calle C; Antonio A; Jose A; Ainara T; Fernandez-Diaz M; **Porcher F,**
446	Indigo@Silicalite: a New Organic Inorganic Hybrid Pigment	**Acs Applied Materials & Interfaces**	2	8	2308-2316	1944 8244	Dejoie C; Martinetto P; Dooryhee E; Strobel P; Blanc S; Bordat P; Brown R; **Porcher F**; del Rio M S; A Michel
447	Evidence of macroscopically entangled protons in a mixed isotope crystal of KHpD1-pCO3	**Journal of Physics-Condensed Matter**	22	4	45402	0953 8984	Fillaux F; **Cousson A** ;Gutmann M J.
448	Two-dimensional neutron scattering in a floating heavy water bridge	**Journal of Physics D-Applied Physics**	43	10	105502	0022 3727	Fuchs E C. **Baroni Patrick** Bitschnau Brigitte **Noirez Laurence**
449	Polar clusters in impurity-doped quantum paraelectric K1-xLixTaO(3)	**Physical Review B**	81	14	114112	1098 0121	Geneste G; Kiat J-M ;Yokota Hiroko; Uesu Yoshiaki **;Porcher F,**
450	On the relation between the microscopic structure and the sound velocity anomaly in elemental melts of groups IV,Vand VI	**Journal of Chemical Physics**	133	9	94506	0021 9606	Greenberg Y; Yahel El; Caspi El'ad N; **Beuneu B**; Dariel Moshe P. Makov G
451	Rearrangement of the structure during nucleation of a cordierite glass doped with TiO2	**Journal of Physics-Condensed Matter**	22	18	185401	0953 8984	Guignard Marie; Cormier Laurent; Montouillout Valerie; Menguy Nicolas; Massiot Dominique; Hannon Alex C; **Beuneu Brigitte**;
452	Direct Measurement of Polymer Chain Conformation in Well-Controlled Model Nanocomposites by Combining SANS and SAXS	**Macromolecules**	43	23	9881-9891	0024 9297	**Jouault N**; Dalmas F; Said S; Di Cola E; Schweins R; **Jestin J; Boue F**
453	Direct small-angle-neutron-scattering observation of stretched chain conformation in nanocomposites: More insight on polymer contributions in mechanical reinforcement	**Physical Review E**	82	3	31801	1539 3755	**Jouault Nicolas**; Dalmas Florent; Said Sylvere; Di Cola Emanuela; Schweins Ralf; **Jestin Jacques; Boue Francoi**s
454	Structure of Te-rich Te-Ge-X (X = I Se Ga) glasses	**Journal of Physics-Condensed Matter**	22	40	404207	0953 8984	Jovari Pl; Kaban I; Bureau B; Wilhelm A; Lucas P; **Beuneu B**; Zajac D A.
455	Structure of GeSe4-In and GeSe5-In glasses	**Journal of Physics-Condensed Matter**	22	40	404205	0953 8984	Kaban I. Jovari P. Petkova T. Petkov P. Stoilova A. Hoyer W. **Beuneu B**.
456	On the atomic structure of Zr60Cu20Fe20 metallic glass	**Journal of Physics-Condensed Matter**	22	40	404208	0953 8984	Kaban I. Jovari P. Stoica M. Mattern N. Eckert J. Hoyer W. **Beuneu B.**
457	Composition structural parameters and color of langatate	**Inorganic Materials**	46	9	988-993	0020 1685	Kaurova I. A. Kuz'micheva G. M. Rybakov V. B. Dubovskii A. B**. Cousson A**.

458	Low-symmetry phases and loss of relaxation in nanosized lead scandium niobate	**Physical Review B**	81	14	144122	1098 0121	**Kiat J. M**. Bogicevic C. Karolak F. Dezanneau G. Guiblin N. Ren W. Bellaiche L. Haumont R.
459	Representation of data on off-specular neutron scattering	**Physics of the Solid State**	52	8	1561-1570	1063 7834	Kozhevnikov S. V. **Ott F**.
460	Neutron Diffraction Investigation of Langanite Crystals	**Crystallography Reports**	55	6	1067-1073	1063 7745	Kuz'micheva GM; Kaurova IA; Rybakov VB; Dubovsky AB; **Cousson A**; Zaharko O
461	Effect of the Pb2+ lone electron pair in the structure and properties of the double perovskites Pb2Sc(Ti0.5Te0.5)O-6 and Pb2Sc(Sc0.33Te0.66)O-6: relaxor state due to intrinsic partial disorder	**Dalton Transactions**	39	21	5159-5165	1477 9226	Larregola S. A. Alonso J. A. Alguero M. Jimenez R. Suard E. **Porcher F**. Pedregosa J. C.
462	The neutron diffraction study calorimetry and spontaneous polarization of pyridinium perrhenate at 350 300 and 100 K	**Journal of Physics-Condensed Matter**	22	23	235901	0953 8984	Maluszynska Hanna;**Cousson Alain**; Czarnecki Piotr
463	Radiolysis of water in nanoporous gold	**Physical Chemistry Chemical Physics**	12	39	12868-12874	1463 9076	Musat R. Moreau S. Poidevin F. **Mathon M. H**. Pommeret S. Renault J. P.
464	Neutron Diffraction Residual Stress Evaluation and Numerical Modeling of Coating Obtained by PTA Process	**Thermec 2009 Pts 1-4**	638-642		594-599	0255 5476	Nady A. Bonefoy H. **KloseK V. Mathon M. H**. Lodini A.
465	Revealing the solid-like nature of glycerol at ambient temperature	**Journal of Molecular Structure**	972	40 238	16-21	0022 2860	**Noirez L. Baroni P.**
466	Study of the Orthorhombic Polymeric Phase of C-60 Under High Pressure Using Synchrotron X-Ray Powder Diffraction	**Fullerenes Nanotubes and Carbon Nanostructures**	18	06 part1	392-395	1536 383X	**Papoular RJ;** Dmitriev V; Davydov VA; Rakhmanina AV; Allouchi H; Agafonov V
467	First Observation of the FCC to Trigonal/Rhombohedral Transition of Pure Dimerized C-60 Under High Pressure	**Fullerenes Nanotubes and Carbon Nanostructures**	18	06 part 1	386-391	1536 383X	**Papoular RJ**; Le Parc R; Dmitriev V; Davydov VA; Rakhmanina AV; Agafonov V
468	Enhancing permittivity of ferroelectric superlattices via composition tuning	**Physical Review B**	81	14	144118	1098 0121	Pertsev N. A. Janolin P. -E**. Kiat J**. -M. Uesu Y.
469	Influence of the Formulation Process in Electrostatic Assembly of Nanoparticles and Macromolecules in Aqueous Solution: The Interaction Pathway	**Journal of Physical Chemistry C**	114	39	16373-16381	1932 7447	Qi Ling; Fresnais J;Berret J-F; Castaing J-C; Destremaut F; Salmo J-B; **Cousin F;** Chapel J-P
470	Experimental study of the relation between the permeability of kaolinite and its deformation at micro and macro scale	**International Journal of Rock Mechanics and Mining Sciences**	47	4	559-567	1365 1609	Raynaud S; Vasseur G; Celerier B; Loggia D; Ghoreychi M; **Mathon M-H**; Mazerolle F
471	Natural rubber-clay nanocomposites: Mechanical and structural properties	**Polymer**	51	16	3644-3652	0032 3861	Rezende C A. Braganca F C. Doi T R. **Lee L-T** Galembeck F; **Boue F.**

472	Homogeneous Dispersion of Magnetic Nanoparticles Aggregates in a PS Nanocomposite: Highly Reproducible Hierarchical Structure Tuned by the Nanoparticles' Size	**Macromolecules**	43	13	5785-5796	0024 9297	Robbes A-S; **Jestin J;** Meneau Fl; Dalmas F; Sandre O; Perez J; **Boue F; Cousin F.**
473	Study of C-60 Peapods After a High-Pressure-High-Temperature Treatment	**Fullerenes Nanotubes and Carbon Nanostructures**	06 part 1	40 698	412-416	1536 383X	Rols S; **Papoular RJ**; Davydov VA; Rakhmanina AV; Autret C; Agafonov V
474	All-Manganite Tunnel Junctions with Interface-Induced Barrier Magnetism	**Advanced Materials**	22	44	5029	0935 9648	Sefrioui Z; Visani C; Calderon MJ; March K; Carretero C; Walls M; Rivera-Calzada A; Leon C; Anton RL; Charlton TR; Cuellar FA; Iborra E; **Ott F**; Imhoff D; Brey L; Bibes M; SantamariaJ; Barthelemy,
475	Water-clay surface interaction: A neutron scattering study	**Chemical Physics**	374	3	55-61	0301 0104	Sobolev O. Buivin F. Favre Kemner E. Russina M. **Beuneu B**. Cuello G. J. Charlet L.
476	pH and Temperature Responsive Polymeric Micelles and Polymersomes by Self-Assembly of Poly 2-(dimethylamino)ethyl methacrylate -b-Poly(glutamic acid) Double Hydrophilic Block Copolymers	**Langmuir**	26	13	10546-10554	0743 7463	Agut W; **Brulet A**; Schatz C; Taton D; Lecommandoux S
477	Photo-Crosslinked Fluorinated Thin Films from Azido-Functionalized Random Copolymers	**Journal of Polymer Science A-Polymer Chemistry**	48	17	3888-3895	0887 624X	Al Akhrass; Samer Damiron Denis; **Carrot Geraldine**; Drockenmuller Eric
478	Hydrogen bonded network properties in liquid formamide	**Journal of Chemical Physics**	132	1	14506	0021 9606	Bako I; Megyes T; Balint S; Chihaia V; **Bellissent-Funel M-C**; Krienke H; Kopf A ;Suh Soong-Hyuck
479	Effects of presssure on stability of biomolecules in solutions studied by neutrons scattering.	**Metastable Systems under Pressure**			377-388	1874 6489	**Bellissent-Funel MC**; Appavou MS; **Gibrat G**
480	The key to control Cu II loading in silica based mesoporous materials	**Microporous and Mesoporous Materials**	132	3	518-525	1387 1811	Brodie-Linder N; Besse R; **Audonnet F**; LeCaer S; Deschamps J; Imperor-Clerc M; **Alba-Simionesco C;**
481	Study of the heating effect contribution to the nonlinear dielectric response of a supercooled liquid	**Journal of Chemical Physics**	133	23	234901	0021 9606	Brun C; **Crauste-Thibierge C;** Ladieu F; L'Hote D
482	Self-assembly of an amyloid peptide fragment-PEG conjugate: lyotropic phase formation and influence of PEG crystallization	**Polymer Chemistry**	1	4	453-459	1759 9954	Castelletto V. Newby G. E. Merino D. Hernaida Hamley I. W. Liu D. **Noirez L**.
483	Self-Assembly of PEGylated Peptide Conjugates Containing a Modified Amyloid beta-Peptide Fragment	**Langmuir**	26	12	9986-9996	0743 7463	Castelletto V. Newby G. E. Zhu Z. Hamley I. W. **Noirez L**.

484	Small-Angle Neutron Scattering Study of Solubilization of Tributyl Phosphate in Aqueous Solutions of L64 Pluronic Triblock Copolymers	**Langmuir**	26	20	15745-15753	0743 7463	Causse J; Oberdisse J **;Jestin J;** Lagerge S
485	Elaboration of Spin-Coated Cellulose-Xyloglucan Multilayered Thin Films	**Langmuir**	26	22	17248-17255	0743 7463	Cerclier C; **Cousin F**; Bizot H; Moreau C; Cathala B
486	Collective molecular reorientation of a calamitic liquid crystal (12CB) confined in alumina nanochannels	**Physical Review E**	82	1	11706	1539 3755	Chahine G; Kityk Andriy V.; Demarest N;Jean Fabien ;Knorr K;Huber P; Lefort R; **Zanotti J-M**; Morineau D;
487	Criticality of an isotropic-to-smectic transition induced by anisotropicquenched disorder	**Physical Review E**	81	3	31703	1539 3755	**Chahine G**; Kityk AV; Knorr K ;Lefort R ;Guendouz M; Morineau D;
488	Wet-to-Dry Conformational Transition of Polymer Layers Grafted to Nanoparticles in Nanocomposite	**Macromolecules**	43	11	4833-4837	0024 9297	Chevigny C; **Jestin J**; Gigmes D; Schweins R; Di-Cola E; Dalmas F; Bertin D; **Boue F;**
489	Small-angle scattering and the structure of ambient liquid water	**Proceedings of the National Academy of Sciences of the U S A**	107	32	14003-14007	0027 8424	Clark GN. I. Hura G L**. Teixeira J;** Soper A K. Head-Gordon T;
490	Multiple Scale Reorganization of Electrostatic Complexes of Poly(styrenesulfonate) and Lysozyme	**Langmuir**	26	10	7078-7085	0743 7463	**Cousin F**; Gummel J; Clemens D; Grillo I; **Boue F;**
491	The Role of Chain Length in Nonergodicity Factor and Fragility of Polymers	**Macromolecules**	43	21	8977-8984	0024 9297	Dalle-Ferrier C; Niss K; Sokolov AP; Frick B; Serrano J; **Alba-Simionesco C**
492	Association of Indigo with Zeolites for Improved Color Stabilization	**applied spectroscopy**	64	10	1131-1138	0003 7028	Dejoie C Martinetto P Dooryhee E Van Elslande E Blanc S Bordat P Brown R **Porcher F** Anne M
493	A thermodynamic limit of the melting/freezing processes of water under strongly hydrophobic nanoscopic confinement	**Physical Chemistry Chemical Physics**	12	7	1440-1443	1463 9076	Deschamps J; **Audonnet F; Brodie-Linder N;** Schoeffel M; **Alba-Simionesco C;**
494	Self assembly of anastomosis-like superstructures in fatty acid/guanidine hydrochloride aqueous dispersions	**Journal of Colloid and Interface Science**	341	2	386-389	0021 9797	Douliez Jean-Paul; Houinsou-Houssou Berenice; Fameau Anne-Laure; Novales Bruno; Gaillard Cedric
495	Efficient Approaches for the Surface Modification of Platinum Nanoparticles via Click Chemistry	**Macromolecules**	43	22	9371-9375	0024 9297	Drockenmuller E; Colinet I; Damiron D**; Gal F**; Perez H; **Carrot G**
496	Hierarchical structures based on self-assembled diblock copolymers within honeycomb micro-structured porous films	**Soft Matter**	6	14	3202-3210	1744 683X	Escale P; Save M; **Lapp A**; Rubatat L; Billon L;
497	12-Hydroxystearic acid lipid tubes under various experimental conditions	**Journal of Colloid and Interface Science**	341	1	38-47	0021 9797	Fameau A-L; Houinsou-Houssou B; Novales B; Navailles L; Nallet F; Douliez J-P;

448	Two-dimensional neutron scattering in a floating heavy water bridge	**Journal of Physics D-Applied Physics**	43	10	105502	0022 3727	Fuchs E C. **Baroni P**; Bitschnau B; **Noirez L;**
498	Partial area of cholesterol in monounsaturated diacylphosphatidylcholine bilayers	**Chemistry and Physics of Lipids**	163	8	765-770	0009 3084	Gallova J; Uhrikova D; Kucerka N; Teixeira J; Balgavy P
499	Growth and Branching of Charged Wormlike Micelles as Revealed by Dilution Laws	**Langmuir**	26	13	10411-10414	0743 7463	In M; Bendjeriou B; **Noirez L**; Grillo I;
500	Studies of water and ice in hydrophilic and hydrophobic mesoporous silicas: pore characterisation and phase transformations	**Physical Chemistry Chemical Physics**	12	12	2838-2849	1463 9076	Jelassi J; Castricum H L; **Bellissent-Funel MC**. Dore J
452	Direct Measurement of Polymer Chain Conformation in Well-Controlled Model Nanocomposites by Combining SANS and SAXS	**Macromolecules**	43	23	9881-9891	0024 9297	**Jouault N;** Dalmas F; Said S; Di Cola E; Schweins R; **Jestin J; Boue F**
501	Direct small-angle-neutron-scattering observation of stretched chain conformation in nanocomposites: More insight on polymer contributions in mechanical reinforcement	**Physical Review E**	82	3	31801	1539 3755	Jouault N; Dalmas F; Said S; Di Cola E; Schweins R; **Jestin J; Boue F;**
502	Dynamical behavior of a single polymer chain under nanometric confinement	**European Physical Journal-Special Topics**	189	1	231-237	1951 6355	Lagrene K; **Zanotti JM**; Daoud M; Farago B; Judeinstein P
503	Large-scale dynamics of a single polymer chain under severe confinement	**Physical Review E**	81	6	60801	1539 3755	Lagrene K; **Zanotti J-M;** Daoud M; Farago B; Judeinstein P;
504	Small-Angle Neutron Scattering of Percolative Perfluoropolyether Water in Oil Microemulsions	**Journal of Physical Chemistry B**	114	11	3855-3862	1520 6106	Laurati M. Gambi C. M. C. Giordano R. Baglioni P. **Teixeira J**.
505	Amphiphilic Diblock Copolymers with a Moderately Hydrophobic Block: Toward Dynamic Micelles	**Macromolecules**	43	6	2667-2671	0024 9297	Lejeune E; Drechsler M; **Jestin J**; Mueller Axel H. E; Chassenieux C. Colombani O;
506	Effect of Nanoparticle Size on the Morphology of Adsorbed Surfactant Layers	**Journal of Physical Chemistry B**	114	12	4183-4191	1520 6106	Lugo Dersy M; Oberdisse J; **Lapp A**; Findenegg Gerhard H.
507	Self-similar assemblies of globular whey proteins at the air-water interface: Effect of the structure	**Journal of Colloid and Interface Science**	345	1	54-63	0021 9797	Mahmoudi N; Gaillard C;Boue F; Axelos M; A. V. Riaublanc A.
508	Dynamics in Clays - Combining Neutron Scattering and Microscopic Simulation	**Zeitschrift Fur Physikalische Chemie-Int J**	224	40 210	153-181	0942 9352	Malikova N; Dubois E; Marry V; Rotenberg B; Turq P.
509	Nonlinearity and isotope effect in temporal evolution of mesoscopic structure during hydration of cement	**Physical Review B**	82	6	64203	1098 0121	Mazumder S. Sen D. Bahadur J. Klepp J. Rauch H. **Teixeira J**
510	Does Molecular Self-Association Survive in Nanochannels?	**Journal of Physical Chemistry Letters**	1	7	1155-1159	1948 7185	Morineau D; **Alba-Simionesco C**.

511	Connection between slow and fast dynamics of molecular liquids around the glass transition	**Physical Review E**	82	2	21508	1539 3755	Niss K; Dalle-Ferrier C; Frick B; Russo D; Dyre J; **Alba-Simionesco** C.
465	Revealing the solid-like nature of glycerol at ambient temperature	**Journal of Molecular Structure**	972	40 238	16-21	0022 2860	**Noirez L. Baroni P.**
422	Enhanced drug loading in polymerized micellar cargo	**Organic & Biomolecular Chemistry**	8	17	3902-3907	1477 0520	Ogier J; Arnauld T; **Carrot G;** Lhumeau A; Delbos J-M; Boursier C; Loreau O; Lefoulon F; Doris E
512	Self-Assembly in Solution of a Reversible Comb-Shaped Supramolecular Polymer	**Macromolecules**	43	5	2529-2534	0024 9297	Pensec S; Nouvel N; Guilleman A; Creton C; **Boue F**; Bouteiller L.
513	Microemulsion nanocomposites: phase diagram rheology and structure using a combined small angle neutron scattering and reverse Monte Carlo approach	**Soft Matter**	6	21	5605-5614	1744 683X	Puech N; Mora S; Phou T; Porte G; **Jestin J**; Oberdisse J
471	Natural rubber-clay nanocomposites: Mechanical and structural properties	**Polymer**	51	16	3644-3652	0032 3861	Rezende C A. Braganca F C. Doi T R. **Lee L-T** Galembeck F; **Boue F.**
472	Homogeneous Dispersion of Magnetic Nanoparticles Aggregates in a PS Nanocomposite: Highly Reproducible Hierarchical Structure Tuned by the Nanoparticles' Size	**Macromolecules**	43	13	5785-5796	0024 9297	Robbes A-S; Jestin J; Meneau F; Dalmas F; Sandre O; Perez J r; **Boue F; Cousin F.**
514	Molecular simulation of aqueous solutions at clay surfaces	**Journal of Physics-Condensed Matter**	22	28	284414	0953 8984	Rotenberg B. Marry V. Malikova N. Turq P.
515	On the behaviour of water hydrogen bonds at biomolecular sites: Dependences on temperature and on network dimensionality	**Journal of Molecular Structure**	972	3	81-86	0022 2860	Russo D; Copley J R. D. Ollivier J ;**Teixeira J**
516	Biocompatible and Biodegradable Poly(trimethylene carbonate)-b-Poly (L-glutamic acid) Polymersomes: Size Control and Stability	**Langmuir**	26	4	2751-2760	0743 7463	Sanson C; Schatz C; Le Meins J-F; **Brulet A**; Soum A; Lecommandoux S
517	Evolution of the conducting phase topology at the percolation threshold in colossal magnetoresistance manganites: A magnetic small-angle neutron scattering study	**Physical Review B**	82	5	54427	1098 0121	Saurel D; Simon C; Pautrat A; Martin C; Dewhurst C; **Brulet A**
518	Foaming properties of protein/pectin electrostatic complexes and foam structure at nanoscale	**Journal of Colloid and Interface Science**	345	2	316-324	0021 9797	Schmidt I. Novales B. **Boue F**. Axelos M. A. V.
519	Thermoresponsive Amphiphilic Diblock Copolymers Synthesized by MADIX/RAFT: Properties in Aqueous Solutions and Use for the Preparation and Stabilization of Gold Nanoparticles	**Chemistry of Materials**	22	12	3712-3724	0897 4756	Sistach S; Beija M; Rahal V; **Brulet A**; Marty J-D; Destarac M; Mingotaud C
520	Is ambient water inhomogeneous on the nanometer-length scale?	**Proceedings of the Nat Academy of Sciences of the United States of America**	107	12	E44-E44	0027 8424	Soper A. K**. Teixeira J**. Head-Gordon T.

521	Ca2+-triggered coelenterazine-binding protein from Renilla muelleri: spatial structure and properties	**Febs Journal**	277		264-264	1742464X	Stepanyuk G. **Malikova N.** Liu Z. -J. Markova S. Frank L. Lee J. Vysotski E.
522	The glass transition and relaxation behavior of bulk water and a possible relation to confined water	**Journal of Chemical Physics**	132	1	14508	00219606	Swenson J; **Teixeira J.**
523	Pink Noise of Ionic Conductance through Single Artificial Nanopores Revisited	**Physical Review Letters**	105	26	260602	00319007	Tasserit C;**Koutsioubas A;Lairez D;** Zalczer G; Clochard M.C.
524	Temperature-Dependent Structure of alpha-CD/PEO-Based Polyrotaxanes in Concentrated Solution in DMSO: Kinetics and Multiblock Copolymer Behavior	**Macromolecules**	43	4	1915-1921	00249297	Travelet C; Hebraud P; Perry C; Brochon C; Hadziioannou G;**Lapp A**; Schlatter G,
525	Identification of a protein required for recovery of full antenna capacity in OCP-related photoprotective mechanism in cyanobacteria	**Proceedings of the National Academy of Sciences of the United States of America**	107	25	11620-11625	00278424	Boulay Clemence Wilson Adjele D'Haene Sandrine Kirilovsky Diana
526	H-2 formation by electron irradiation of SBA-15 materials and the effect of Cu-II grafting	**Physical chemistry Chemical physics**	12	42	14188-14195	14639076	**Brodie-Linder N**; Le Caer S; Alam MS; Renault JP**; Alba-Simionesco C**
527	Can multistate dark matter annihilation explain the high-energy cosmic ray lepton anomalies?	**Physical Review D**	82	2	23503	15507998	Cirelli Marco Cline James M.
528	Cubic to Hexagonal Phase Transition Induced by Electric Field	**Macromolecules**	43	9	4261-4267	00249297	Giacomelli Fernando C. da Silveira Nadya P. Nallet Frederic Cernoch Petr Steinhart Milos Stepanek Petr
529	Effects of flow fluctuations and partial thermalization on v(4)	**Physical Review C**	81	1	14901	05562813	Gombeaud Clement;Ollitrault Jean-Yves
530	Synthesis of thermally responsive cylindrical molecular brushes via a combination of nitroxide-mediated radical polymerization and "grafting onto" strategy	**European Polymer Journal**	46	4	804-813	00143057	Gromadzki Daniel Jigounov Alexander Stepanek Petr Makuska Ricardas
531	KAM tori in 1D random discrete nonlinear Schrodinger model?	**EuroPhysics letters**	91	5	50001	02955075	Johansson M. Kopidakis G. Aubry S.
532	Development and application of setup for ac magnetic field in neutron scattering experiments	**Review of Scientific Instruments**	81	10	103303	00346748	**Klimko S**; Zhernenkov K; Toperverg BP; Zabel H
533	Dynamics of water in binary and ternary solutions of DNA and porphyrins	**Physics of the Solid State**	52	5	1074-1079	10637834	Lebedev V. T. Kulvelis Yu. V. Torok Gy.
534	compression of random coils due to macromolecular crowding-scaling effects	**Physical Review E**	81	6	61914	15393755	Lecoeur C; Teixeira J; Busch P;Longeville S
535	Asymptotic energy profile of a wave packet in disordered chains	**Physical Review E**	82	5PART2	56602	15393755	Lepri S; Schilling R; Aubry S
536	v(4) from ideal and viscous hydrodynamic simulations of nuclear collisions at the BNL Relativistic Heavy Ion Collider (RHIC) and the CERN Large Hadron Collider (LHC)	**Physical Review C**	81	5	54910	05562813	Luzum Matthew Gombeaud Clement Ollitrault Jean-Yves

537	Various Modes of Void Closure during Dry Sintering of Close-Packed Nanoparticles	**Langmuir**	26	2	1226-1231	0743 7463	Nawaz Qamar Rharbi Yahya
538	Self-Assembly and Foaming Properties of Fatty Acid-Lysine Aqueous Dispersions	**Langmuir**	26	8	5329-5334	0743 7463	Novales Bruno Riaublanc Alain Navailles Laurence Houssou Berenice Houinsou Gaillard Cedric Nallet Frederic Douliez Jean-Paul
539	Role of transverse temperature gradients in the generation of lamellar eutectic solidification patterns	**Acta Materialia**	58	5	1761-1769	1359 6454	**Perrut Mikael** ;Parisi Andrea; Akamatsu Silvere; Bottin-Rousseau Sabine; Faivre Gabriel; Plapp Mathis
540	The Fermi surface and band folding in La2-xSrxCuO4 probed by angle-resolved photoemission	**New Journal of Physics**	12		125003	1367 2630	Razzoli E; Sassa Y; Drachuck G; Mansson M; Keren A; Shay M; Berntsen MH; Tjernberg O; Radovic M; Chang J; **Pailhes S**; Momono N; Oda M; Ido M; Lipscombe OJ; Hayden SM; Patthey L; Mesot J; Shi M
541	Flow-Induced Ordering in Cubic Gels Formed by P2VP-b-PEO-b-P(GME-co-EGE) Triblock Terpolymer Micelles: A Rheo-SANS Study	**Macromolecules**	43	23	10045-10054	0024 9297	Reinicke S; Karg M; **Lapp A**; Heymann L; Hellweg T; Schmalz H
542	Methods for probing the long-range dynamic of confined polymers in nanoparticles using small-angle neutron scattering	**Canadian Journal of Chemistry-Revue Canadienne De Chimie**	88	3	288-297	0008 4042	Rharbi Y. Yousfi M. Porcar Lionel Nawaz Q.
543	Glycodynamers: Dynamic Polymers Bearing Oligosaccharides Residues - Generation Structure Physicochemical Component Exchange and Lectin Binding Properties	**Journal of the American Chemical Society**	132	8	2573-2584	0002 7863	Ruff Yves; Buhler Eric; Candau Sauveur-Jean; Kesselman Ellina; Talmon Yeshayahu; Lehn Jean-Marie
544	Turbulent velocity spectra in superfluid flows	**Physics of Fluids**	22	12		1070 6631	Salort j;C. Baudet;B. Castaing;B. Chabaud;F. Daviaud;T. Didelot;P. Diribarne;B. Dubrulle;Y. Gagne;F. Gauthier;A. Girard;B. Hebral;B. Rousset;P. Thibault;P. E. Roche
545	Low-temperature structural phase transition in deuterated and protonated lithium acetate dihydrate	**Journal of Chemical Thermodynamics**	42	8	957-961	0021 9614	Schroeder F. Winkler B. Haussuehl E. Cong P. T. Wolf B. Avalos-Borja **M. Quilichini M. Hennion B.**
546	Possible room-temperature ferromagnetism in K-doped SnO2: X-ray diffraction and high-resolution transmission electron microscopy study	**Physical Review B**	82	19	93203	1098 0121	Srivastava SK; Lejay P; Barbara B; **Pailhes S;** Madigou V; Bouzerar G
547	Around the composition Gd4Co3: Structural magnetic and magnetocaloric properties of Gd6Co4.85(2)	**Intermetallics**	18	6	1216-1221	0966 9795	Tence S. Gaudin E. Chevalier B.
548	Photoelectron Generation by Photosystem II Core Complexes Tethered to Gold Surfaces	**Chemsuschem**	3	4	471-475	1864 5631	Vittadello M; Gorbunov M Y;Mastrogiovanni D T. Wielunski LS. Garfunkel EL. Guerrero F; Kirilovsky D; Sugiura M; Rutherford A. Wi; Safari A;Falkowski PG.

549	Dynamics of the interfacial film in bicontinuous microemulsions based on a partly ionic surfactant mixture: A neutron spin-echo study	**European physical journal E**	33	3	243-250	1292 8941	Wellert S; Altmann HJ; Richardt A; **Lapp A**; Falus P; Farago B; Hellweg T
550	Structural Determinants Underlying Photoprotection in the Photoactive Orange Carotenoid Protein of Cyanobacteria	**Journal of Biological Chemistry**	285	24	18364-18375	0021 9258	Wilson A; Kinney J N; Zwart Petrus H; Punginelli C; D'Haene S; Perreau F; Klein Michael G; Kirilovsky D; Kerfeld Cheryl A.
551	Effect of crowding on the conformation of interwound DNA strands from neutron scattering measurements and Monte Carlo simulations	**Physical Review E**	81	6	61905	1539 3755	Zhu Xiaoying Ng Siow Yee Gupta Amar Nath Feng Yuan Ping Ho Bow; **Lapp Alain** ;Egelhaaf Stefan U; Forsyth V. Trevor ;Haertlein Michael;Moulin Martine Schweins Ralf van der Maarel Johan R. C.
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551	Helical magnetic state in the distorted triangular lattice of alpha-CaCr2O4	**Physical Review B**	83	2	24409	1098 0121	Chapon LC; Manuel P; **Damay F;** Toledano P; HardyV; Martin
552	Dipolar interactions in arrays of ferromagnetic nanowires: Amicromagnetic study.	**Journal of applied physics**	109	1	13910	0021 8979	**Zighem F; Maurer T; Ott F; Chaboussant G**
553	Substitution Effect on the Interplane Coupling in Crednerite: the Cu1.04Mn0.96O2 Case	**Chemistry of Materials**	23	1	85-94	0897 4756	Poienar M; Vecchini C; Andre G; Daoud-Aladine A; Margiolaki I; Maignan A; Lappas A; Chapon L; Hervieu M; Damay F; Martin C
554	Temperature-pressure phase diagram of an aperiodic host guest compound	**EuroPhysics letters**	93	1	16003	0295 5075	Toudic B; Rabiller P; Bourgeois L; Huard M; Ecolivet C; McIntyre GJ; Bourges P; Breczewski T; Janssen T
555	Magnetization distribution in the tetragonal Ba(Fe1-xCox)(2)As-2 x=0.066 probed by polarized neutron diffraction	**EuroPhysics letters**	93	3	32001	0295 5075	Prokes K; **Gukasov A;** Argyriou DN; Bud'k SL; Canfield PC; Kreyssig A; Goldman AI
556	Temperature evolution of copper oxide nanoparticles in porous glasses	**Crystallography reports**	56	1	164-168		Golosovsky I V;D. A. Kurdyukov A. A. Naberezhnov I. **Mirebeau and G. André**
557	Evidence of a framework induced cation redistribution upon water adsorption in cobalt exchanged X faujasite zeolite: A joint experimental and simulation study	**Microporous and Mesoporous Materials**	138	40 603	45-50	1387 1811	Jeffroy M; Borissenko E; Boutin A; Di Lella A; Porcher F; Souhassou M; Lecomte C; Fuchs AH
558	Influence of rare-earth ions on SiO2-Na2O-RE2O3 glass structure	**Journal of Physics-Condensed Matter**	23	6	65404	0953 8984	Johnson JA; Benmore CJ; Holland D; Du J; Beuneu B; Mekki A
559	Structural and magnetic properties of Ru/Ni multilayers	**Journal of physics D-Applied Physics**	44	7	75001	0022 3727	Mergia K; Tomou A; Panagiotopoulos I; Ott F
560	Identification of finite shear-elasticity in the liquid state of molecular and polymeric glass-formers	**Philosophical magazine**					Noirez L;H. Mendil-Jakani;P. Baroni

561	Structural and magnetic properties of RMn2-xFexD6 compounds (R=Y Er; x <= 0.2) synthesized under high deuterium pressure	**Journal of Solid State Chemistry**	184	2	463-469	0022 4596	Paul-Boncour V; Filipek SM; Sato R; Wierzbicki R; Andre G; Porcher F; Reissner M; Wiesinger G
562	Probing magnetic domain wall profiles by neutron spin precession	**EuroPhysics letters**	93	3	37003	0295 5075	Thibaudeau P; **Ott F**; Thiaville A; Dubuget V; Duverger F
563	On the role of lattice dynamics on low-temperature oxygen mobility in solid oxides: a neutron diffraction and first-principles investigation of La2CuO4+delta	**JOURNAL OF SOLID STATE ELECTROCHEMISTRY**	15	2	357-366	1432 8488	Villesuzanne A; Paulus W; **Cousson A**; Hosoya S; Le Dreau L; Hernandez O; Prestipino C; Houchati MI; Schefer J
564	Osmotically induced deformation of capsid-like icosahedral vesicles	**Soft Matter**	7	3	1084-1089	1744 683X	Bealle G; **Jestin J**; Carriere D
565	Polymer-Grafted-Nanoparticles Nanocomposites: Dispersion Grafted Chain Conformation and Rheological Behavior	**Macromolecules**	44	1	122-133	0024 9297	**Chevigny C**; Dalmas F; DiCola E; Gigmes D;Bertin D;**Boue F;Jestin J**
566	Temperature- and hydration-dependent internal dynamics of stripped human erythrocyte vesicles studied by incoherent neutron scattering	**Biochimica Et Biophysica Acta-General Subjects**	1810	2	202-210	0304 4165	**Combet S; Zanotti JM; Bellissent-Funel MC**
567	Conformational transition of DNA bound to Hfq probed by infrared spectroscopy	**Physical Chemistry Chemical Physics**	13	3	1222-1229	1463 9076	Geinguenaud F; Calandrini V; **Teixeira J**; Mayer C; Liquier J; Lavelle C; Arluison V
568	Adsorption structure and dynamics of benzene in ordered and disordered porous carbons	**PHYSICAL CHEMISTRY CHEMICAL PHYSICS**	13	9	3748-3757	1463 9076	Coasne B; **Alba-Simionesco C; Audonnet F**; DossehG; Gubbins KE
569	Structural studies of water in hydrophilic and hydrophobic mesoporous silicas: An x-ray and neutron diffraction study at 297 K	**JOURNAL OF CHEMICAL PHYSICS**	134	6	64509	0021 9606	Jelassi J; Grosz T; Bako I; **Bellissent-Funel MC**; Dore JC; Castricum HL; Sridi-Dorbez R
570	Enhancing the Superconducting Transition Temperature of BaSi_{2} by Structural Tuning	**Physical Review Letters**	106	8	87002	0031 9007	Flores-Livas JA; Debord R; Botti S; San Miguel A; Marques MAL; **Pailhes S**
571	The effects of cholesterol and beta-sitosterol on the structure of saturated diacylphosphatidylcholine bilayers	**European Biophysics Journal with Biophysics Letters**	40	2	153-163	0175 7571	Gallova J; Uhrikova D; Kucerka N; Doktorovova S; Funari SS; **Teixeira J**; Balgavy P
572	Origin of Absorption Changes Associated with Photoprotective Energy Dissipation in the Absence of Zeaxanthin	**Journal of Biological Chemistry**	286	1	91-98	0021 9258	Ilioaia C; Johnson MP; Duffy CDP; Pascal AA; van Grondelle R; Robert B; Ruban AV
573	Ordered interfaces for dual easy axes in liquid crystals	**Soft Matter**	7	3	1078-1083	1744 683X	Lacaze E; Apicella A; De Santo MP; Coursault D; Alba M; Goldmann M; Barberi R
574	Solubility and Self-Assembly of Amphiphilic Gradient and Block Copolymers in Supercritical CO2	**Journal of Physical Chemistry B**	115	5	836-843	1520 6106	Ribaut T; Oberdisse J; **Annighofer B**; Fournel B; Sarrade S; Haller H; Lacroix-Desmazes P

575	Two-dimensional electron gas with universal subbands at the surface of SrTiO3	**Nature**	469	7329	189	0028 0836	Santander-Syro AF; Copie O; Kondo T; Fortuna F; **Pailhes S**; Weht R; Qiu XG; Bertran F; Nicolaou A; Taleb-Ibrahimi A; Le Fevre P; Herranz G; Bibes M; Reyren N; Apertet Y; Lecoeur P; Barthelemy A; Rozenberg MJ
576	Structure Properties and Theoretical Electronic Structure of UCuOP and NpCuOP	**Inorganic Chemistry**	50	2	576-589	0020 1669	Wells DM; Ringe E; Kaczorowski D; Gnida D; **Andre G**; Haire RG; Ellis DE; Ibers JA
577	Influence of deuteration on lithium acetate dihydrate studied by inelastic X-ray scattering density functional theory thermal expansion elastic and thermodynamic measurements	**Dalton Transactions**	40	8	1737-1742	1477 9226	Winkler B; Haussuhl E; Bauer JD; Schroder F; Refson K; Milman V; **Hennion B**; Bossak A; Krisch M
578	Self-ordered arrays of linear defects and virtual singularities in thin smectic-A films	**Soft Matter**	7	3	1161-1167	1744 683X	Zappone B; Lacaze E; Hayeb H; Goldmann M; Boudet N; Barois P; Alba M

LISTE ACLN ET ASCL

*ACNL: Article dans des revues avec comités de lectures non répertoriés dans les bases de données internationales. (**not or not yet in ISI**)*

Auto-assembly of E. coli DsrA small noncoding RNA: Molecular characteristics and functional consequences
Cayrol B, Geinguenaud F, Lacoste J, Busi F, Le Derout J, Pietrement O, Le Cam E, Regnier P, Lavelle C & Arluison V
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Series: "Neutron Scattering Applications and Techniques"
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Arluison V.

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INTERNATIONALESINVITEES

January 2008 - February 2011

2008

1.A nonadiabatic and nonlinear theory for electron transfer
Aubry S. APS Annual March Meeting March 2008 New Orleans, USA
2.Suppression of Energy Diffusion in Nonlinear Disordered Systems
Aubry S. NLSE Workshop Technion June 2008 Haifa, Israel
3.Absence of Energy Diffusion in Nonlinear Random Systems with Anderson Localization
Aubry S. Greek Turkish conference on statistical mechanics and dynamical systems September 2008 Rhodos Marmaris, Greece
4.Relationship between adsorption and glass transition of nano confined fluid : the case of toluene
Audonnet F. International Workshop : Recent advances in the understanding of confined fluids, from superfluids to oil reservoirs January 2008 Abington, Royaume Uni
5.Interplay between lattice clamping and helical magnetic ordering in (110) Eu epitaxial films
Bataille A. Joint European Magnetism Symposia September 2008 Dublin, Irland
6.Relaxation Dynamics of Proteins and Water : Combining Neutron Scattering and Molecular Dynamics Simulation
Bellissent Funel M.C. XXI SITGES CONFERENCE on Statistical Mechanics of Molecular Biophysics June 2008 Sitges, Spain
7.Peculiar Structural and Dynamic Properties of Interfacial Water
Bellissent Funel M.C. International Workshop on Aqueous Solutions and their Interfaces June 2008 Héraklion, Crete
8.Peculiar Structural and Dynamic Properties of hydration water : A Liquid Liquid transition
Bellissent Funel M.C. Telluride Workshop on "Liquid and Solid Aqueous Surfaces and Interfaces August 2008 Telluride, USA
9.Effects of pressure on stability of biomolecules in solution
Bellissent Funel M.C. ARW NATO, Metastable Systems under Pressure: Platform for New Technological and Environmental Applications" October 2008 Odessa, Ukraine
10.Protein Dynamics and Hydration Water
Bellissent Funel M.C. Water in Biological Systems: A french Japanese Workshop November 2008 Kyoto, Japan
11.Pressure Effects on Stability and Dynamics of Biomolecules in Solution
Bellissent Funel M.C. International Conference on High Pressure Molecular Biophysics December 2008, Synchrotron Soleil St Aubin, France
12.Composites nanoparticles aggregates in mixed complex systems seen by SANS and SAXS
Boué F. Spheres, chains and contrasts American Crystallography Association June 2008 Knoxville, USA
13.Chain conformation and correlations in two polymer mixed systems : polyelectrolyte complexes and polymer nanofiller under flow
Boué F. Polymer Physics Group of the Institute of Physics September 2008 Imperial College, London United Kingdom
14.Hard soft nanocomposites : understanding reinforcement from accurate description of structure to mechanical properties under small and large deformation
Boué F. Second international conference on polymer blends composites, IPNS September 2008 Kottayam, Kerala, India
15.Circulating currents phase in high Tc cuprates
Bourges P. Aspen 2008 Winter Conference : "New Horizons in Condensed Matter Physics" February 2008 Aspen, USA
16.Magnetic order in the pseudogap state of high Tc cuprates using polarized neutron scattering technique
Bourges P. 6th International Conference of the Stripes series Quantum Phenomena in Complex Matter July 2008 Erice, Italie.
17.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. 25th international conference on low temperature Physics (LT25), August 2008 Amsterdam, Pays Bas
18.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. Conference on "FeAs High Tc Superconducting Multilayers and Related Phenomena", December 2008 Rome, Italy
19.Nouveau projet PA20 et avancement de TPA
Desert S. Rencontres LLB/Soleil 2008 CEA Saclay, France.
20.Multiferroics
Gukassov A. 41ème Ecole de physique de PNPI February 2008 Repino, Russie
21.Polarised neutron Diffraction
Gukassov A. Workshop Magnetic Structure Analysis by Neutron Diffraction Techniques American Crystallographic Association Meeting May 2008 Knoxville, USA
22.Spin Density in Frustrated Pyrochlores
Gukassov A. PNCMI 2008 September 2008
23.Modern Trends in Neutron Scattering
Gukassov A.
Towards Rapid Data Acquisition in Polarized Neutron Diffraction -November 2008 Bernried, Germany
24.Thermoresponsive surface layers: structure and properties
Lay Teng L. 4th International Conference on Surface X Ray and Neutron Scattering July 2008 Saint Aubin, France

25.Dynamics and confinement in clays
Malikova N. Dynamics in Soft Matter satellite meeting of the autumn MRS conference December 2008 Boston, USA
26.Neutron diffraction study of multipole order in light rare earth hexaborides
Mignot J.M. International Symposium on Neutron Scattering January 2008 Mumbay, Inde.
27.Neutron scattering study of the long-range ordered state in CeRu2Al10
Mignot J.M Heavy Electrons (ICHE) 2010, Tokyo (Japan) Sept 17-20, 2010
28.Low temperature spin dynamics and high pressure effects in frustrated pyrochlores
Mirebeau I. March Meetings American Physical Society March 2008 New Orleans, USA
29.Hidden Long Range Solid like Correlations of the Fluidic State of Polymers
Noirez L. PolyFilm September 2008 Sheffield, United Kingdom
30.Study of the dynamics of hydrogen bonds in water and consequences for the unusual behaviour of supercooled water
Teixeira J. International Symposium on Neutron Scattering January 2008 Mumbai, India
31.Hydrogen bonds in water and consequences for its unusual behaviour
Teixeira J. Statistical Physics and Low Dimension Systems May 2008 Nancy France
32.Introduction to water and neutron scattering
Teixeira J. Neutron Scattering Workshop on Biomolecular Dynamics and Protein Water Interactions September 2008 Felfading, Allemagne
33.Hydrogen bonds as a possible explanation of the unusual behaviour of water and aqueous solutions
Teixeira J. Conference on Physics, Chemistry and Biology of Water October 2008 Mount Snow Vermont, Etats Unis
34.Polymer dynamics under confinement
Zanotti J.M . Dynamics of Soft Matter December 2008 Boston, Etats Unis

2009

35.Growing length scale in supercooled liquids by quasi elastic neutron scattering: a revisited MCT analysis
Alba Simionesco C. QENS09 February 2009 Villigen, Switzerland
36.Confined molecular liquids: from adsorption to the glass transition of the condensed phases
Alba Simionesco C. CEFIPRA on Indo French Discussion Meeting on “Diffusion in Nanoporous and Dense Media April 2009 Bangalore, India
37.The new grail : a quest for a growing correlation length in glass physics
Alba Simionesco C. Ist Nordic Meeting of Physics June 2009 Copenhague, Sweden
38.A quest for a growing length scale in supercooled liquids
Alba Simionesco C. IDMRCS August September 2009 Rome, Italy
39.Molecular weight dependence of the viscous slowing down and the glass properties of polymers
Alba Simionesco C. SOFTCOMP October 2009 Tützing, Germany
40.Melting and glass formation of some confined H bonded liquids
Alba Simionesco C. Structure and Dynamics of Hydrogen Bonded Systems: the Abdus Salam International Centre for Theoretical Physics October 2009 Trieste, Italy
41.Absence of diffusion of a wavepacket in some random systems and for some initial conditions
Aubry S. Anderson Localization in Nonlinear and Many Body Systems workshop March 2009 Dresden, Germany
42.Rôle de l’Eau d’Hydratation dans la Dynamique des Protéines
Bellissent Funel M.C. Conférence débats et Controverse de l’Académie des Sciences : l’Importance de l’Eau dans les Systèmes Biologiques March 2009, Académie des Sciences Paris
43.Water at Interfaces : Connection with Protein Dynamics
Bellissent Funel M.C. International Bunsen Discussion Meeting in Leipzig, Molecular transformations and dynamics in complex molecular environments" September 2009, Germany
44.Water at Interfaces : Phase Transitions and Connection to Protein Dynamics
Bellissent Funel M.C. Conference on the Physics, Chemistry & Biology of Water 2009 October 2009, Mount Snow, Vermont USA
45.Structure and composition, from SANS, of complexes of lysozyme with polyelectrolytes from flexible poly(styrene sulfonate) to semi rigid pectin and hyaluronan
Boué F. ACS Fall Meeting August 2009 Washington DC, USA
46.Getting a very simple model system for dispersion, and information on direct and polymer mediated connection,by TEM, X rays and neutron, and rheology
Boué F. Nanofillers August 2009 Dalian, Chine
47.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. Emergence of Inhomogeneous Phases in Strongly Correlated Electron Systems (Glassy '09) June 2009 - Paris, France
48.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. 2009 ICAM I2CAM Cargèse Summer Workshop, Emergent Quatum Phenomena from the Nano to the Macro world July 2009 Cargèse, Corsica
49.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. Half Plenary talk at the International Conference on Magnetism (ICM) July 2009 Karlruhe, Germany.
50.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. Swiss Workshop on Materials with Novel Electronic Properties MANEP, Les Diablerets August 2009 Switzerland

51.Nano objets hybrides : synthèse, caractérisation 3D et organisation 2D
Carrot G. Journées GFP Ile de France, January 2009 Cergy Pontoise, France
52.Greffage de Polymères sur des Nanoparticules : ATRP en surface, chimie click et diffusion de neutrons
Carrot G. Journée Chimie à l'IRAMIS April 2009 CEA Saclay France
53.Tuning of the finite size of globular clusters of proteins and polyelectrolytes of opposite charges by electrostatic screening
Cousin F. 13th IACIS International Conf on Surface and Colloid Science June 2009 New York, USA
54.Site susceptibility approach in Magnetization Density studies
Gukassov A. Sagamore 2009, Sant Fe. USA
Frustration in Magnetism
Gukassov A. 42ème Ecole de physique de PNPI March 2009 Repino, Russa
55.Influence of macromolecular crowding on protein stability
Longeville S. Neutrons meet Biology February 2009 Berlin, Germany
56.Influence of macromolecular crowding on protein stability and diffusion
Longeville S. Worshop on Macromolecular Crowding July 2009 Telluride, United Kingdom
57.Dynamics in clays
Malikova N. XVIII International Conference on Horizons in Hydrogen Bond Research September 2009 Paris, France
Dynamics of water and ions in clays: experiment and simulationMalikova N. 6th International Discussion Meeting on Relaxations in Complex Systems September 2009 Rome, Italy.

58.Dynamics of water and ions in clays experiment and simulation
Malikova N. ICNS 2009 International conference on neutron scattering May 2009 Knoxville, USA
59.Dynamics and confinement in clays combining experiment and simulation
Malikova N. Quasi elastic neutron scattering conference 2009 February 2009, Paul Scherrer Institut, Villigen Switzerland

60.Hidden Macroscopic Shear Elasticity in the Liquid State
Noirez L.IDMRCS September 2009, Rome Italy
61.Hidden Macroscopic Shear Elasticity in H Bond & Viscous Liquids
Noirez L. XVIII International Conference on Horizons in Hydrogen Bond Research September 2009 Paris, France
62.Topics in the Frustration of Pyrochlore Magnets Pyrochlores: the new challenges
Mirebeau I. International Workshop ESF HF September 2009 Abingdon, United Kingdom
63.Geometrical magnetoc frustration in pyrochlore and multiferroic compounds: what can we learn from neutron scattering
Mirebeau I. Conference on neutron scattering and mesoscopic systems CNSCM 2009
64.Local susceptibility in rare earth pyrochlores as seen by polarized neutrons
Mirebeau I. Flipper 2010 08 18 Single Crystal diffraction with polarized neutrons January 2009 Grenoble, France
65.High flux reflectometry.
Ott F. International Conference on Neutron Scattering 2009 Knoxville, USA
66.GISANS on magnetic nanostructures
Ott F. Grazing Incidence Small Angle Scattering 2009 Hamburg, Germany
67.Hybrid modes in hexagonal RMnO3 Multiferroics
Petit S. DYPROSO (Dynamical Properties of Solids)2009 September 2009 Anvers, Belgique
68.Magnetic order in the pseudogap state of high Tc cuprates, using polarized neutron scattering technique
Sidis Y. ICNS 2009 International Conference on Neutron Scattering May 2009 Knoxville, USA
69.Hydrogen bond dynamics in bulk and confined water
Teixeira J. 6th International Discussion Meeting on Relaxation in Complex Systems (6IDMRCS) August 2009 Rome, Italy
70.Interaction water aminoacids. From hydration to solutions
Teixeira J. XVIII International Conference on "Horizons in Hydrogen Bond Research" September, 2009 Paris, France
71.Interaction water aminoacids. From hydration to solutions
Teixeira J. Conference on Neutron Scattering and Mesoscopic Systems October, 2009 Goa, India
72.Low temperature phase transitions of interfacial water. Connection to protein dynamics
Zanotti J.M. 6th International Discussion Meeting on Relaxations in Complex Systems August September 2009 Rome, Italy
73.Polymer dynamics under quasi uniaxial confinement. The case of PEO in porous alumina
Zanotti J.M. Trends and perspectives in Neutron Scattering in Soft Matter October 2009 Tuzting, Germany
74.A new ToF instrument at LLB : the Fa# project
Zanotti J.M. Trends in Cold Neutron Time of Flight Spectroscopy November 2009 Grenoble, France
75.Polymer dynamics under quasi uniaxial confinement
Zanotti J.M. 2009 Materials Research Society Fall Meeting/Multiscale Dynamics in Confining Systems December 2009 Boston, Etats Unis

2010

76.Intimate Relation between Structure and Dynamics of glassforming Molecular Liquids and Polymers
Alba Simionesco C. IWNCS April 2010 Barcelone, Spain
77.Confining a liquid down to the nanoscale : more of the same or new phenomena ?
Alba Simionesco C. Complex dynamics of fluids in disordered and crowded environments CECAM June 2010 Lyon, France

78.How anomalous remain the liquid water properties when it is confined at the nanoscale ?
Alba Simionesco C. Passion of Soft Matter DIPC October 2010 San Sebastian, Spain
79.KAM tori and Absence of Diffusion of a wavepacket in the 1D random DNLS model
Aubry S. Colloquim invité Université Humbolt June 2010 Berlin, Germany
80.KAM tori and Absence of Diffusion if a wavepacket in the 1D random DNLS model
Aubry S. Nonlinear Dynamics and Complexity : Theory, Methods and Application in honor of Tassos Bountis on the occasion of his 60th birthday July 2010 Thessaloniki, Greece
81.KAM tori in the 1D random DNLS model and Absence of Diffusion of a wavepacket
Aubry S. Smr 2162 Advanced workshop on Anderson Localization September 2010 Trieste, Italy .
82.International Workshop on "Dynamic crossover Phenomena in water and other Glass-forming Liquids
M.C. Bellissent-Funel. Dynamics of Nano-Confined Water.November 11-13, 2010, Florence- Italy
83.Chain response to deformation, filler displacement, and mechanical reinforcement in polymer nanocomposites
Boué F. SOFTCOMP DYNACOP Avril 2010 San Sebastian, Spain
84.Chain Response to Deformation, Filler Displacement, and Mechanical Reinforcement in Polymer Nanocomposites
Boué F. Polymer Networks group September 2010 Germany
85.Polymer nanocomposites
Boué F. 6th IUPAC International Symposium on Novel Materials and their Synthesis (NMS VI) & 20th International Symposium on Fine Chemistry and Functional Polymers (FCFP XX) October 2010 Wuhan, China,
86.Magnetic order in the pseudogap state of high Tc cuprates
Bourges P. International Workshop on Single Crystal Diffraction with Polarised Neutrons, Flipper 2010 January 2010 Grenoble, France
87.Novel magnetic order in high Tc copper oxides superconductors
Bourges P. 9th International Conference on Spectroscopies in Novel Superconductors (SNS2010) May 2010 Shanghai, China
88.Novel magnetic order and excitations in high Tc copper oxides superconductors
Bourges P. International workshop on Polarised Neutrons in Condensed Matter Investigations PNCMI2010 July 2010 Delft, the Netherlands
89.Novel magnetic order and excitations in high Tc copper oxides superconductors
Bourges P. Superstripes 2010, The International Conference on Quantum Phenomena in Complex Matter July 2010 Erice, Italy
90.Novel magnetic order and excitations in high Tc copper oxides superconductors
Bourges P. ILL, vision 2020 Future directions in neutron science September 2010 Grenoble, France
91.PND data analysis: magnetisation densities and magnetic form factors determination
Gillon B. International workshop on Single Crystal Diffraction with polarised neutrons January 2010 Grenoble, France
92.Recent Progress in joint spin, charge and momentum densities refinements,
Gillon B. Gordon Conference on Electron Distribution & Chemical Bonding, July 2010, Mount Holyoke College, South Hadley, Massachussetts, USA
93.Complementarities bewteen X rays and neutron for nanoscicences
Jestin J. The power of neutron scattering techniques in nano and bio sciences July 2010 Jaca.
94.Relaxors and morphotropic compounds: what happens when size is reduced?
KIAT J.M - Fundamental Physics of Ferroelectrics, Aspen Colorado (USA) février 2010
C. BOGICEVIC, W. REN, L. BELLAICHE, R. HAUMONT , B.DHKIL, J.CARREAUD
95.Quantum paraelectrics: structural aspects in relation with doping-induced ferroelectricity and polar nano regions
KIAT J.M, GENEST G.
Fundamental Physics of Ferroelectrics, Aspen Colorado (USA) février 2010
96.Thin film stabilized multi-ferroic hexagonal YbFeO3
Y.UESU, H.IIDA, T.KOIZUMU, N.IKEDA, K.KOHN, R.HAUMON, AND J.M.KIATISAF-ECAPD, Edinburgh (Ecosse), avril 2010
97.Ferroelectric and magnetic instabilities of the multiferroic (BiPb)FeO3
KIAT J.M, J. CHAIGNEAU, R. HAUMONT,
10th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity, Yokohama (Japon) Juin 2010
98.Size effect in ferroelectric and relaxors compounds
KIAT J.M
10th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity, Yokohama (Japon) Juin 2010
99.Growth of Quantum Paraelectric LaNaTiO3
Kiat J.M R.Haumont,M.Devant,J.Hermet,R.Saint Martin, Y.Uesu,M.Itoh
10th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity, Yokohama (Japon) Juin 2010
100.Ferroelectric and magnetic instabilities of the multiferroic (BiPb)FeO3
KIAT J.M, J. CHAIGNEAU, R.HAUMONT, G.ANDRE,
10th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity, Yokohama (Japon) Juin 2010
101.Application industrielle
Mathon M.H Forum Industriel ESS February 2010 Paris, France
102. Small Angle Neutron Scattering Study of martensitic/ferritic alloys of nuclear interest
Mathon M.H IFAMST'7 , 7h International Forum on Advanced Material Science and Technology June 2010 Dalian, China
103.Neutron Scattering and Materials of Nuclear Interest
Mathon M.H Neutrons for Global Energy Solutions September 2010 Bonn, Germany
104.Local susceptibility in rare earth pyrochlores as seen by polarized neutrons
Mirebeau I. Single crystal diffraction with polarized neutrons Flipper 2010, Grenoble (january 2010)

105. Field induced magnetic structures in $Tb_2Ti_2O_7$
Mirebeau I. Advanced working group on Monopoles in Spin ices. Univ. London (15 16 oct. 2010)
106.Magnetic Ground states of $R_2Ti_2O_7$ pyrochlores (R=Er, Tb): a neutron diffraction study.
Mirebeau I. Physical Phenomena at High magnetic fields PPHMFVII (Thallahassee, Florida, 3 8 dec: 2010)
107.Hidden Macroscopic Shear Elasticity in Viscous Liquids
Noirez L. 12th workshop on Complex System March 2010 Trento, Italy
108.High intensity white beam specular reflectometers.
Ott F. Neutron Optics 2010 Alpes d'Huez, France .
109.Ab Initio structure determination of two polymorphic modifications of an anesthetic agent, Tetracaine Hydrochloride, using a combination of molecular modelling and synchrotron x ray powder diffraction techniques
Papoular R. Pharmaceutical Powder X Ray Diffraction Symposium [PPXRD 9] February 2010 Hilton Head Island, S.C., USA
110.Easy Access to Synchrotron Powder Diffraction on Pharmaceuticals
Papoular R. Pharmaceutical Powder X Ray Diffraction Symposium [PPXRD 9], February 2010 Hilton Head Island, S.C. USA
111.Neutron scattering study of hexagonal RMnO3 Multiferroics
Petit S. Workshop on the Physics of Complex Oxides June 2010 Santorin, Grece
112.Hybrid modes in hexagonal RMnO3 Multiferroics
Petit S. DYPROSO 2009, September 2010 Anvers, Belgium
113.Spin dynamics in classical kagome antiferromagnets
Robert J. Perspectives in Highly Frustrated Magnetism International Workshop, April 2010 Dresden, Germany
114.Unconventional magnetic order in the pseudo gap state of HTc cuprates
Sidis Y. PARIS EDGE 2010 Edge Topics in Correlated Materials International Conference 2010 Orsay, France
115.Unconventional magnetic order in the pseudo gap state of HTc cuprates
Sidis Y. COMA RUGA 2010 6th International Workshop on Nanomagnetism and Superconductivity 2010 Coma Ruga, Espagne
116.Dynamics of water at biological interfaces
Teixeira J. Workshop on Water at Interfaces January 2010 Durham, United Kingdom
117.Small angle neutron scattering experiments in biology
Teixeira J. The power of neutron scattering techniques in nano and bio sciences July 2010 Jaca

2011

118.**Gordon Conference "Chemistry and Physics of Liquids". at the Holderness School, Plymouth**
Alba-Simionesco C., NH. Confined Fluids and Interfaces, 26-30 Juillet 2011
119.American Society for Microbiology (ASM) Conference on Regulating with RNA in Bacteria
Arluison A, Application of Electron Cryotomographic Methods to *E. coli* to Reveal Cell Morphological Changes Governed by Riboregulation Mars 2011, San Juan, Puerto Rico
120.Protein and Peptide conference, Pepcon2011
Fadda J., Beijing 23-25 Mars 2011
121.Strong SHG signals observed in ferroelectric/ferrimagnetic hexagonal $YbFeO_3$ thin films coupled with magnetic orderings
Kiat J.M H. Iida, T.Koizumi, Y. Uesu, K.Kohn, N. Ikeda, S.Mori, R.Haumont,
Waseda Workshop on multiferroic compounds, Tokyo (Japon) janv.2011
122.Structural properties and dielectric relaxation in Li-doped $KTaO_3$ studied by ab-initio and Kinetic Monte Carlo
Kiat J.M, G. Geneste , H. Yokota, Y. Uesu, and F. Porcher
The 20th IEEE International Symposium on Applications of Ferroelectrics, Vancouver (Canada) Juillet 2011
123.Nano-particles, nano-ceramics and nanocomposites of ferroelectric, relaxors and quantum-paraelectric perovskites
M. Anoufa, J.M. Kiat, C. Bogicevic, P.Gemeiner, F. Karolak, I. Kornev, F.Porcher
The 20th IEEE International Symposium on Applications of Ferroelectrics, Vancouver (Canada) Juillet 2011
124.Ferroelectricity and ferrimagnetism of thin-film stabilized hexagona $YbFeO_3$
Kiat J.M, Y.Uesu, H.Iida, T.Koizumi, Kay Kohn, T.Ikada, S.Mor[3], R.Haumont
The 20th IEEE International Symposium on Applications of Ferroelectrics, Vancouver (Canada) Juillet 2011
125.First principles and experimental study of nanodots embedded in a dielectric media
M. Anoufa, C. Bogicevic, I. Kornev, F. Karolak, J.M. Kiat
EMF 2011 European Meeting on Ferroelectricity, Bordeaux Juin 2011
126.Low symmetry ground states in relation with relaxation, Size/strain effects and antiferrodistorsion in lead scandium niobate (PSN)
Kiat J.M, P.E. Janolin, R. Haumont, N. A. Pertsev, Y. Uesu, C. Bogicevic , W. Ren , L. Bellaiche , A. Bataille
EMF 2011 European Meeting on Ferroelectricity, Bordeaux Juin 2011
127.Crystals under extreme conditions: Hidden Properties from mesophases to simple liquids
Noirez L. – Février 2011, Maribor – Slovénie
128. Liquid crystals under extreme conditions: Hidden Properties from mesophases to simple liquids",
Noirez L., Maribor (Slovénie), Février 2011

ACTN - COMMUNICATIONS AVEC ACTE POUR CONGRES NATIONAL

2008

129.Structure et dynamique dans les nanocomposites : effet sur le renforcement mécanique
Boué F. Journées neutrons Bretagne April 2008 Bretagne, France Exposé Nicolas Jouault.
130.Nanocomposite polymère silice: exemples d'utilisation de la Diffusion de rayonnement
Boué F. Université de Clermont Ferrand, June 2008 Clermont Ferrand, France
J. Jestin
131.Surfaces and Interfaces in Soft Matter and Biology
Jestin J. Asphaltene Adsorption at the Local scale May 2008 Grenoble, France
132.La réflectivité de neutrons et la matière molle
Lay Teng L. 6th Rencontre LLB Soleil March 2008 Saint Aubin, France
133.Effet draconien sur la production H_2 de la présence de cuivre II sur des surfaces de SBA 15 sous irradiation
Linder N. JECR (Journées d'Etudes de la Chimie sous Rayonnement) May 2008 Presqu'île de Giens, France
134.La diffusion des neutrons au service de la science des matériaux
Mathon M.H Ingénierie de la matière", Institut de l'Ecole normale supérieure June 2008 Paris, France
135.Diffusion des neutrons et science des matériaux
Mathon M.H Journées Grands Instruments, ICMPE November 2008 Thiais, France
136.Nouvelles frontières liquide solide dans les fondus de polymères
Noirez L. Communication orale au 43ième Colloque du Groupe Français de Rhéologie October 2008 Palaiseau, France
137.Nouvelles frontières Liquide Solide dans les fondus de Polymères
Noirez L. Communication orale aux « Journées de la Matière Condensée » Minicolloque « Mécanique & physique des contacts et interfaces » August 2008 Strasbourg, France.
138. New developments for 2D High Resolution Neutron Scattering Experiments. Application case and experimental evidences from **Crystals to amorphous cases."**
L. Noirez P. Baroni, JDN 16, Albé, May 2008
139.L'utilisation des neutrons dans l'étude de la supraconductivité
Pailhès S. Ecole thématique de la société française de la neutronique May 2008 Albé, France
140.L'utilisation des neutrons dans l'étude des matériaux multiferroiques
Pailhès S. GDR Multiferroique November 2008 Paris, France
141.Study of the planar spin anisotropy of spin excitations in superconducting YBa2Cu3O6+x
Sidis Y. GDR, MICO 2008 Autran, France

2009

Carrot G Nano objets hybrides: synthèse, caractérisation 3D et organisation 2D. Journées GFP Ile de France Université de Cergy Pontoise Janvier 2009
142.GDR MICO, 2ième réunion scientifique
Bourée Vigneron F. Bi $6s^2$ lone pair induced magnetic order in $BiMn_7O_{12}$ October 2009 Aspet, Hte Garonne
143.Analyse des polymères par rayonnement
Jestin J. Etude des nanocomposites par diffusion de rayonnement February 2009 Nancy, France
144.Etude des hétérogénéités des champs mécaniques dans un acier bainitique à l'aide de la diffraction des neutrons
Klosek V. 19ème Congrès Français de Mécanique 2009 Marseille, France
145.Bonnes pratiques de la diffusion de neutrons aux petits angles
Lairez D. Ecole Thématique des JDN17 organisée apr la SFN May 2009 La Grande Motte, France
146.Ordre chimique local vu par diffusion de neutrons: du fer chrome aux glaces de spin
Mirebeau I. Journée scientifique en l'honneur de M.C. Cadeville (IPCMS) October 2009 Strasbourg, France
147.Non linear phenomena & Phases induced under flow in the Isotropic phase of Liquid Crystals & Melts
Noirez L. Communication orale lors de l'European Liquid Crystal Conference April 2009 Colmar, France.

2010

148.Nanocomposite polymère silice: exemples d'utilisation de la Diffusion de rayonnement
Boué F. APOLLOR 2010 Nancy, France
149.Nano objets hybrides nanoparticules/polymère : combinaison de chimie contrôlée et de diffusion de neutrons.
Carrot G**. Conférence sur les Nanosiences** Itodys Paris VII janvier 2010
150.Analyse des contraintes résiduelles par diffraction neutronique
Castelnau O. Journee technique "analyse des contraintes residuelles et appliquées par des techniques experimentales" October 2010 Ecole des Mines de Douai, France
151.CONFIT 2010 Dynamics in confinement
Jestin J. Polymer grafted silica nanocomposites, dispersion and dynamics March 2010 Grenoble, France
152.The Development of the Wide Angle Neutron Resonance Spin echo Multi MUSES at LLB
Klimko S. JDN18 June 2010 Rémuzat, Drôme France

153.Deformation mechanisms of cubic materials under uniaxial loading studied by neutron diffraction
Klosek V. Journées Annuelles de la Société Française de Métallurgie et de Matériaux 2010 2010 Paris, France.
154.Etude des hétérogénéités de déformation par diffraction des neutrons
Mathon M.H. 18èmes Journées de la Diffusion Neutronique June, 2010 Rémuzat, France
155.Deformation mechanisms of cubic materials under uniaxial loading studied by neutron diffraction
Mathon M.H Journées Annuelles de la Société Française de Métallurgie et de Matériaux June 2010 Paris, France
156.Analyse des contraintes résiduelles par diffraction neutronique
Mathon M.H Journée technique "Analyse des Contraintes Résiduelles et Appliquées par des Techniques Expérimentales September 2010 Douai, France

ACTI - COMMUNICATIONS AVEC ACTE POUR CONGRES INTERNATIONAL

2008

157.3D and 2D organization of nanoscale hybrid objects. Polymer Colloids : from design to
Carrot G. Biomedical Industrial Applications July 2008 Prague Republic Tcheck
158.International Workshop on Magnetic Nonawires (IWMW)
Chaboussant G. Highly crystalline Cobalt nanowires with high coercivity prepared by soft chemistr3 2008 Spain
159.Polymer silica nanocomposites, dispersion, chains conformation and mechanical behaviour
Jestin J. MRS Spring meeting 2010 April 2010 San Francisco, USA
160.EPS−CMD 22
Jestin J. Well defined nanofiller controlled structure in polymer August 2008 Rome, Italy
161.Nanocomposites 2008
Jestin J. Anisotropic Reinforcement in Nanocomposites September 2008 San Diego, USA
162.LLB user access system
Menelle A. Unique user entry point workshop ESRF ILL May 29, 2008 Grenoble, France
163.Field induced ordered magnetic structures in $Tb_2Ti_2O_7$ Polarized neutron study
Mirebeau I. Highly frustrated Magnetism Workshop September 2008 Braunschweig, Germany
164.Hidden Solid like correlations of the fluidic state of polymers : Identification by dynamic relaxation
Noirez L. « 42nd IUPAC World Polymer Congress » Macro 2008 July 2008 Taipei, Taiwan
165.Superconducting pairing through the spin resonance mode
Onufrieva F. Conference of the Condensed Matter Division of the European Physical Society (CMD 22) August 2008 Rome, Italy
166.Magnetic order in the pseudogap state of high Tc cuprates, using polarized neutron scattering technique
Sidis Y. RINGBERG MEETING 2008 Ringberg, Germany

2009

167. Regulation of bacterial cytoskeleton proteins expression by noncoding RNA in E. coli and morphological effects
Arluison V. Regulatory RNA in prokaryotes June 2009 Berlin, Germany
168.Molecular and Cellular Imaging of Hfq Protein Reveals its Function in Nucleoid Structure
Arluison V. FASEB summer research conference on Mechanisms and Regulation of Prokaryotic Transcription July 2009 Saxton River, Vermont, USA
169.Jamming like slow dynamics of peptide induced pore in lipid bilayer membranes
Fadda G. IDMRCS6 September 2009 Rome, Italy
170.Thermec 2009 International Conference on Processing & Manufacturing of Advanced Materials
Mathon M.H **Neutron Diffraction Residula Stress Evaluation Nad Numerical Modeling Of Coating Obtained By PTA Process**
August 2009 Berlin,Germany
171.Orientation stress field analysis in polycrystalline bcc steel using neutron diffraction
Mathon M.H Mecasens V : Conference on Stress Evaluation on Materials by Neutron or Synchrotron Radiation November 2009, Mito, Japan
172.Guide system at LLB : status and projects
Menelle A. Neutron Delivery Systems July 2009, Institut Laue Langevin Grenoble, France,
173.LLB Proposals System
Menelle A. DUO meeting November 2009 Hambourg, Germany
174.Spin ices and soft spin ices under High Pressure Proceedings
Mirebeau I. EHPRG XVII : European High Pressure Research Group September 2009 Paris, France
175.Hidden solid like correlations far above Tg in polymers: from rheo small angle neutron scattering to the identification of novel dynamical properties
Noirez L. Communication orale lors l'Annual European Rheology Conference April 2009 Cardiff, United Kingdom
176.Full dynamical calculation of the scattering on laterally ordered magnetic structures
Ott F. OFF SPEC'2009 Off specular Scattering 2009 Münich, Germany
177.Kramers Krönig Analysis using Maximum Entropy for Reflectance Spectroscopy

Papoular R. Maximum Entropy & Bayesian Methods [MAXENT 2009], July 2009 Oxford , Mississippi USA

178.First observation of the FCC to Trigonal/Rhombohedral transition of pure dimerized C_{60} under high pressure
Papoular R. Internal Workshop Fullerenes and Atomic Clusters [IWFAC'2009] July 2009 St Petersburg, Russia

179.Spin dynamics in CMR manganites
Petit S. ICM July 2009 Karlsuhe, Germany .

2010

180.Is RNA self assembly a mechanism used by cells to influence *gene expression***?**
Arluison V. Meeting of the Biophysical Society February 2010 San Francisco, California USA

181.Versatile Hfq:Nucleic Acids Interactions for the Control of Gene Expression
Arluison V. EURASNET Interdisciplinary Focus Meeting : Frontiers in Structural Biology of RNAs & RNPs August 2010 Poznań, Poland

182.Selective RNA annealing and unwinding mechanisms of Hfq revealed by single molecule measurements
Arluison V. Meeting de la protein Society August 2010 San Diego, Californie

183.Selective RNA annealing and unwinding mechanisms of Hfq revealed by single molecule measurements
Arluison V. Meeting de la protein Society October 2010 Salta, Argentine

184.Smart combination of "grafting from" and "grafting to" for the design of 2D and 3D
Carrot G. Hybrid architectures ACS National meeting, March 2010 San Francisco, USA.

185.Protein/Polymer grafted platinum nanoparticles: towards the construction of glucose probes. Carrot G. ACS National meeting, San Francisco, mars 2010

186.Stacking of multilamellar tubes at the air water interface,
Cousin F. 11th International conference on Surface X ray and Neutron Scattering , July 2010 Evanston, USA

187.A new approach to NRSE flippers
Klimko S. PNCMI 2010 July 2010 Delft, Netherlands

Long range order and magnetic excitations in CeRu2Al10
Mignot J.M International Conference on Heavy Electrons September 2010 Tokyo, Japan

188.Superconducting pairing and electronic anomalies induced by spin fluctuations in high temperature superconductors
Onufrieva F. 9th International Conference on Spectroscopies in Novel Superconductors May 2010 Shanghai, China

189.Probing the profile of domain walls by neutron precession
Ott F. PNCMI 2010 2010 Delft, Netherlands

190.Dynamic Study of N'N dimethylparanitroaniline encapsulated in Silicalite 1 matrix using neutron spin echo spectroscopy
Porcher F. 4th Int. Workshop on Dynamics in Confinement March 2010 Grenoble, France

191.Superconducting e doped Ba122: Magnetic resonance peak and normal state spin excitations
Sidis Y. SUPRA 2010 2010 Gif s/Yvette, France

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2008

192.La diffraction neutronique
André G. 13èmes Confrontations Clinico Biologiques sur la lithiase urinaire, Hôpital Necker October 2008 - Paris, France

193.Diffraction de neutrons à l'aide de détecteurs bidimensionnels au LLB: les spectromètres super 6T2 et VIP 1
Bataille A. Journée de la neutronique May 2008, Albé, France

194.20 ans de supraconducteurs à haute température critique
Bourges P . Journées Scientifiques de la Diffusion Inélastique de neutrons INSTN June 2008 CEA Saclay, France

195.Diffusion de Neutrons aux Petits Angles et Matière Molle,
Brûlet A. Rencontres LLB soleil March 2008 Saint Aubin, France

196.3D and 2D organization of nanoscale hybrid objects
Carrot G. Indo French Worshop on : Multifunctional Molecular and Hybrid Devices October 2008 CEA Saclay.

197.Synthesis and Magnetic Properties of Cobalt Nanowires with High Coercivity
Chaboussant G. International Workshop on Magnetic Wires May 2008 Zumaia, Spain

198.Coercivity drop in exchange biased Co nanowires induced by antiferromagnetic fluctuations, Thomas Maurer
Chaboussant G. Conférence of the Condensed Matter Division of the EPS European Physical society August 2008 Rome, Italy

199.Contribution orale « Magnetic nanowires as permanent magnets », Thomas Maurer
Chaboussant G. JEMS Joint European Magnetic Symposia September 2008 Dublin, Irland

200.La réflectivité de neutron.
Cousin F. Colloque final du GDR "Assemblages des Molécules Végétales", January 2008 St Brévin l'Océan, France

201.Focusing SANS using advanced reflective optics
Désert S. Modern Trends on Neutron Scattering 2008 Bernried, Allemagne

202.Nouveau projet PA20 et avancement de TPA
Désert S. Rencontres LLB/Soleil March 2008 St Aubin, France
203.Neutron diffraction study of $CuCr_{1-x}Mg_xO_2$
Damay F. Multiferroic materials microsymposium, XXIe Congress of International Union of Crystallography August 2008 Osaka, Japan
204.Nouvelles du LLB
Gota Goldmann S. 16èmes Journées de la diffusion neutronique **May 2008 Albé, France**
205.The Instrumental program of the LLB « Cap 2015 »
Gota Goldmann S. IV Meeting of the Spanish Society of neutrons techniques (SETN) September 2008 Saint Feliu de Gixols, Spain
206.Asphaltene Adsorption at the Local scale
Jestin J. Surfaces and Interfaces in Soft Matter and Biology May 2008 Grenoble, France
207.Well defined nanofiller controlled structure in polymer
Jestin J. EPS CMD 22 August 2008 Rome, Italy
208.Anisotropic Reinforcement in Nanocomposites
Jestin J. Nanocomposites 2008 September 2008 San Diego, USA
209.Magnétisme sous pression
Mirebeau I. GDR MICO December 08 Autrans, France
210.Nouvelles frontières liquide solide dans les fondus de polymères
Noirez L. 43ième Colloque du Groupe Français de Rhéologie October 2008 Palaiseau, France
211.Nouvelles frontières Liquide Solide dans les fondus de Polymères
Noirez L. « Journées de la Matière Condensée » Minicolloque « Mécanique & physique des contacts et interfaces » August 2008 Strasbourg, France
212.Revue sur la dynamique de spin dans les manganites à CMR
Petit S. GDR MICO December 2008 Autrans, France
213.Synthesis and characterization of Maya Blue analogous hybrid pigments
Porcher F. Synchrotron Radiation in Art and Archeology October 2008 Barcelone, Espagne
214.Dynamique de spin dans le réseau kagome
Robert J. 16èmes Journées de la Diffusion Neutronique (JDN16), et Journées Rossat Mignod May 2008 Albé, France
215.Formation de spins collectifs dans des agrégats magnétiques frustrés
Robert J. Journées de la Matière Condensée 11 (JMC11) August 2008 Strasbourg, France
216.Interactions multipolaires dans les hexaborures de terres rares RB_6
Robert J. GDR MICO (Matériaux et Interactions en COmpétition) December 2008 Autrans, France
217.Magnetic order in the pseudogap state of high Tc cuprates, using polarized neutron scattering technique
Sidis Y. Ringberg meeting 2008 Ringberg, Allemagne
218.Study of the planar spin anisotropy of spin excitations in superconducting YBa2Cu3O6+x
Sidis Y. GDR, MICO 2008 Autrans, France

2009

219.From capillary condensation to glass transition of the condensed phase : case of toluene
Audonnet F. 6th IDMRCS: International Discussion Meeting on Relaxations in Complex Systems August 2009 Sapienza" Università di Roma, Italy
220.Nanofillers : getting a very simple model system for dispersion, and information on direct and polymer mediated connection by TEM, X rays and neutron, and rheology,
Boué F. ACS Fall Meeting August 2009 Washington DC, USA
221.Complex systems structures revealed by SAN(X)S and coupling with complementary technique
Boué F. Partnership for Condensed Matter ILL ESRF December 2009 Grenoble, France
222.Tandem controlled radical polymerization and "click chemistry : efficient approaches to nanoparticles surface modification
Carrot G - European Polymer Conference**,** Gargnano (Italie) juin 2009.

223.Nano objets hybrides platine/polymères nanoparticules : organisation 2D et 3D. Journées de la Neutronique,
Carrot G. La Grande Motte, mai 2009.
Chaboussant G. 17ème Journée de la Diffusion Neutronique May 2009 La Grande Motte, France
224.Structures de systèmes complexes révelées par les neutrons,
Cousin F. Journée thématique Matière Complexe du Triangle de la Physique September 2009 Orsay, France
225.Hemolytic peptides and DNA vectorization
Fadda G. Rencontre LLB Soleil March 2009 Saint Aubin, France
226.The CEDA project : Towards a Convergence of Electron Charge, Spin and Momentum Densities analysis
Gillon B. Conference on electron charge, spin and momentum density August 2009 Santa Fé, Etats Unis
227.Polarised neutron diffraction study of anisotropy in a dinuclear cobalt complex
GIllon B. ECMM09 Satellite Meeting on Magnetic Anisotropy October 2009 Wroclaw, Poland
228.Etude de l'anisotropie d'un complexe dinucléaire du cobalt(II) par diffraction des neutrons polarisés
Gillon B. 3ème Réunion du GDR MCM (Magnétisme et Commutation Moléculaire) December 2009 Dourdan, France
229.Orientation stress field analysis in polycrystalline bcc steel using neutron diffraction
Klosek V. Mecasen S V : Conference on Stress Evaluation on Materials by Neutron or Synchrotron Radiation 2009 Mito, Japan
230.Orientation stress field analysis in polycrystalline bcc steel using neutron diffraction

Klosek V. MECASENS V: Conference on Stress Evaluation on Materials by Neutron or Synchrotron Radiation 2009 Mito, Japan

231.Dynamics of water and ions in clays : experiment and simulation
Malikova N 17th Interdisciplinary Surface Science Conference, March April 2009 University of Reading, UK

232.Dynamics of water and ions in clays neutron scattering and microscopic simulation
Malikova N. International Conference on Solution Chemistry, August 2009 Innsbruck, Austria.

233.Local order viewed by neutron scattering
Mirebeau I. School : Neutron as a probe of Condensed Matter Physics October 2009 BARC, Bombay, India

234.Non linear phenomena & Phases induced under flow in the Isotropic phase of Liquid Crystals & Melts
Noirez L. European Liquid Crystal Conference April 2009 Colmar, France

235.Hidden solid like correlations far above Tg in polymers: from rheo small angle neutron scattering to the identification of novel dynamical properties
Noirez L. Annual European Rheology Conference April 2009 Cardiff, Angleterre

236.Confinement des excitations magnétiques dans un super réseau MnTe/ZnTe
Petit S. Rencontres LLB Soleil 2009 Saclay, France

237.Caractérisation structurale par diffraction des rayons X sur poudre de pigments hybrides analogues au Bleu Maya
Porcher F. RX2009 December 2009 Orsay, France

2010

238.Relationship between microscopic dynamics and structure of confined water
Audonnet F. CONFIT10 4th International Meeting on Dynamics in Confinement March 2010 Grenoble, France

239.Interplay between lattice clamping and helical magnetic ordering in (110) Eu epitaxial films
Bataille A. Joint MMM/Intermag confenrece January 2010 Washington DC, USA

240.Couplage par effet tunnel entre films antiferromagnétiques
Bataille A. Journée de la neutronique June 2010 Rémuzat, France

241.Diffraction de neutrons sur monocristaux au Laboratoire Léon Brillouin
Bataille A. Colloque de l'association Française de Cristallographie July 2010 Strasbourg, France

242.Structural changes induced by temperature variation and magnetic filed in liquid crystal polymer vesicle
Brûlet A. 43th IUPAC World Polymer Congress July 2010 Glasgow, Royaume Uni

243.Nano objets hybrides nanoparticules/polymère : combinaison de chimie contrôlée et de diffusion de neutrons.
Carrot G. Conférence sur les Nano siences Itodys, January 2010 Paris, France.

244.Complexes protéines polyelectrolytes et variation de contraste : localisation des contre ions et conformation d'une seule chaîne
Cousin F. 16èmes Rencontres Rossat Mignod May 2010 Albé, France.

245.Diffusion de neutrons et systèmes membranaires. *GDR3334* "SupraMemBio"
Combet S. (assemblages supramoléculaires et membranes biologiques : concepts, modèles et fonctions), 1ère séance plénière, L'Isle-sur-la-Sorgue, 29 novembre-3 décembre, 2010

246.Staggered magnetic chirality along zig zag ladders in **beta $CaCr_2O_4$**
Damay F. 18ièmes journées de la Neutronique 2010 Rémuzat, France

247.**Staggered magnetic chirality along zig zag ladders in beta $CaCr_2O_4$**
Damay F. Workshop on the Physics of Complex Oxides, Santorin 2010 Greece

248.Nouvelles du LLB
Gota Goldmann S. 16èmes Journées de la diffusion neutronique **May 2010 Albé, France**

249.Charge, Spin and Momentum Densities simultaneous refinement. From the method to the code
Gillon B. European Crystallography Meeting (ECM26) August 2010 Darmstadt, Germany

250.Distribution de spin dans des complexes du Fe(III), précurseurs de nanofils moléculaires
Gillon B. Colloque AFC 2010 Juillet 2010, Strasbourg

251.Electron density study of a di nuclear cobalt(II) complex
Gillon B. 4ième Réunion du GDR MCM (Magnétisme Moléculaire et Commutation) July 2010 Montpellier, France

252.An Overview of the Orphee LLB Facility
Gota Goldmann S. V meeting of the Spanish Society of Neutron Techniques (SETN) June 2010 Gijon, Spain

253.Polymer grafted silica nanocomposites, dispersion and dynamics
Jestin J. CONFIT 2010 Dynamics in confinement March 2010 Grenoble France

254.Polymer silica nanocomposites, dispersion, chains conformation and mechanical behavior
Jestin J. MRS (Material Research Society) Spring meeting 2010 April 2010 San Francisco, USA

255.Etude des hétérogénéités de déformation par diffraction des neutrons
Klosek V. 18èmes Journées de la Diffusion Neutronique June 2010 Rémuzat, France

256.Water and ion dynamics in clays temperature effect,
Malikova N. 4th International Workshop on Dynamics in Confinement March, 2010 Grenoble, France

257.Behaviour of Hydrophobic ions in aqueous media
Malikova N. Journees de la Diffusion Neutronique June 2010 Remuzat, France

258.Microscopic dynamics under hard and soft confinement
Malikova N. Journées de la Matière Condensée August 2010 Troyes, France
259.Superconducting e doped Ba122 : Magnetic resonance peak and normal state spin excitations
Sidis Y. SUPRA 2010, 2010 Gif s/Yvette, FrancE

AFF - COMMUNICATIONS SANS ACTE POUR CONGRES INTERNATIONAL

2008

260.Influence of hydrophilic and hydrophobic SBA 15 and MCM 41 surfaces in Cu II impregnation
Audonnet F. 6th International Conference on Inorganic Materials September 2008 Dresde, Germany
261.Adsorption and freezing of benzene on silica surfaces and nanopores
Audonnet F. 8th international symposium on the characterization of porous solids (COPS) June 2008 Edinburgh, Scotland
262.Nanomatériaux à base de palladium induits par radiolyse : application en électrocatalyse
Audonnet F. Journées d'Etude de la Chimie sous Rayonnement (JECR) May 2008 Presqu'île de Giens, France
263.Low temperature properties of liquid water in hydrophobic media
Audonnet F. International Workshop : Recent advances in the understanding of confined fluids, from superfluids to oil reservoirs January 2008 Abington, Royaume Uni
264.Verwey transition of magnetite thin films: finite size effects and magnetization glassy behaviour
Bataille A. Joint European Magnetism Symposia September 2008 Dublin, Irland
265.Etudes des populations des domaines hélimagnétiques de films d'Eu(110) par diffraction de neutrons
Bataille A. Colloque Louis Néel September 2008 La grande Motte, France
266.Journées de la Diffusion Neutronique
Bourée Vigneron F Propriétés magnétiques d'un nouveau fluoroterbate $K_2CaTb_2F_{12}$ May 2008 Albé, Vosges
267.Polymer grafted platinum nanoparticles : from 3D small angle neutron scattering study to 2D arrays formation
Carrot G. Congrès International Polyfilm September 2008 Sheffield, United Kingdom
268.Design of cross linked hybrid multilayer thin films from azido functionalized polystyrenes and platinum nanoparticles
Carrot G. Congrès International Polyfilm, September 2008 Sheffield, United Kingdom
269.Nanoparticules de platine greffées de polymère : synthèse, caractérisation en volume par DNPA et organisation
Carrot G. Congrès National du GFP November 2008 Lyon, France
270.Dénaturation thermique d'un système oligomérique "hors équilibre" : la C phycocyanine
Combet S. XXIème Congrès de la Société Française de Biophysique September October 2008 Figeac, France
271.Rôle des fluctuations antiferromagnétiques dans le phénomène d'exchange bias Etude sur des nanofils magnétiques
Chaboussant G. Colloque Louis Néel October 2008 La Grande Motte, France
272.Finite size and inner structure controlled by electrostatic interactions in globular complexes of proteins and polyelectrolytes
Cousin F 22nd Conference of the European Colloid and Interface Society August September 2008 Cracovie, Pologne
273.Third Workshop on Magnetic Structure Determination from Neutron Diffraction Data
Damay F. Neutron diffraction study of $CuCr_{1-x}Mg_xO_2$ 2008 Abingdon, United Kingdom
274.Spin density determination in a cyanide precursor of single chain magnets: polarised neutron diffraction
Gillon B. ICMM 2008, XIth Int. Conference on Molecular based Magnets, September 2008 Florence, Italie
275.Spin dynamics and spin density distribution in antiferromagnetic molecular open rings Cr_8M (M = Zn,Cd)
Gillon B. XIth Int. Conference on Molecular based Magnets (ICMM 2008), September 2008 Florence, Italy
276.Influence of hydrophilic and hydrophobic SBA 15 and MCM 41 surfaces in Cu II impregnation
Linder N. Sixth International Conference on Inorganic Materials September 2008 D**resden, Germany r**
277. Field induced magnetic structures in $Tb_2Ti_2O_7$: polarized neutron study.
Mirebeau I. Highly Frustrated Magnetism HFM2008, conférence internationale, September 2008 Braunschweig (Allemagne)
278.Visible spectroscopy of pigments
Porcher F. Materials & Sensations, October 2008 Pau, France
279.Propagation and ghosts in the classical Kagome antiferromagnet
Robert J. Highly Frustrated Magnetism HFM2008, conférence internationale, September 2008 Braunschweig (Allemagne)

2009

280.Tunnel coupling between antiferromagnetic thin films
Bataille A. International Conference on Magnetism films and surfaces July 2009 Berlin, Germany

281.Couplage par effet tunnel entre films antiferromagnétiques
Bataille A. Congrès de la Société Française de Physique Julyt 2009 Palaiseau, France
282.5th Africa MRS Conference
Bourée Vigneron F. $Li_{0,5}M_{0,25}TiOAsO_4$ (M = Co, Ni, Zn) arsenates: crystal structure, vibrational and optical properties December 2009 Nigeria
283.Structure and Dynamics of comb like liquid crystal polymers
Brûlet A. De Gennes discussion conférence February 2009 Chamonix, France
284.Très Petits Angles
Brûlet A. 17èmes Journées de la Neutronique May 2009 Montpellier, France
285.Tandem controlled radical polymerization and "click chemistry": efficient approaches to nanoparticles' surface modification
Carrot G. Journée Chimie à l'IRAMIS April 2009 CEA Saclay
286.Tandem controlled radical polymerization and "click chemistry": efficient approaches to nanoparticles' surface modification
Carrot G. Journées De la Neutronique, May 2009 La Grande Motte, France
287.Polymer grafted platinum nanoparticles: from 3D structural study to 2D arrays formation
Carrot G. International Aquitaine Conference : Polymers October 2009 Arcachon.
288.International Conference on Magnetism (ICM)
Chaboussant G. Exchange Bias in magnetic $Co_{1-x}Ni_x$ nanowires July 2009 Karslruhe, Allemagne
289.Dipolar magnetic interactions in arrays of ferromagnetic nanowires :
a micromagnetic study
Chaboussant G. ICMFS, Berlin July 2009
290.Polarized Small Angle Neutron Scattering of Co nanowires
Chaboussant G. PNSXM 2009 (Polarized Neutron and Synchrotron X rays for Magnetism August 2009 Bonn, Allemagne**Euro japanese Workshop on Frustration in condensed matter**
Damay F. Crystal and magnetic structure of frustrated delafossite $CuCrO_2$ 2009 Lyon, France
291.Réunion du GDR Matériaux et Interaction en Compétitions
Damay F. Staggered magnetic chirality along zig zag ladders in beta $CaCr_2O_4$ 2009 Aspet, Haute Garonne
292.Focusing SANS using advanced reflective optics
Désert S. ICNS 2009 Knoxville, USA
293.Focusing SANS using advanced reflective optics
Désert S. ICNX 2009 Kuala Lumpur, Malaisie
294.Polarised neutron diffraction study of a molecular dinuclear cobalt complex: local site susceptibility approach
Gillon B. Sagamore XVI, Conference on electron charge, spin and momentum density August 2009 Santa Fé, Etats Unis
295.Spin Distribution in Electron rich Iron(III) Acetylides: How far can we rely on DFT Calculations?
Gillon B. 5th International Symposium on Molecular Materials : Electronics, Photonics and Spintronics October 2009 Rennes, France
296. Magnetic behavior of dinuclear octahedal high spin cobalt (II) complexes
Gillon B. European Conference on molecular Magnetism (ECMM09) October 2009 Wroclaw, Poland
297.Possible magnetic anisotropy and interplay interactions of magnetic interations in a tri mer of Mn(II)
Gillon B. European Conference on molecular Magnetism (ECMM09) October 2009 Wroclaw, Poland
298.International Conference on Neutron Scattering 2009
Longeville S. Influence of macromolecular crowding on protein stability May 2009 Knoxville, USA
299."Influence of macromolecular crowding on protein stability: A model system"
Longeville S. Gordon conférence Biopolymers, June 2009 Newport RI, USA
300.Solute and solvent dynamics in hydrophobic charged systems
Malikova N. International Conference on Solution Chemistry August 2009 Innsbruck, Austria
301.Solute and solvent dynamics in hydrophobic charged systems
Malikova N. Journees de la Diffusion Neutronique (JDN17) May 2009 La Grande Motte, France
302.Ecole sur les symétries en matière condensée
Mirebeau I. Symétrie et susceptibility locales dans les pyrochlores de terre rare March 2009 Porquerolles, France
303.Caractérisation d'ordres multipolaires dans les systèmes de terre rare
Robert J. **Ecole thématique Apports des Symétries en Matière Condensée May 2009 Gi**

2010

304.Versatile Hfq:nucleic acid interactions for the control of gene expression
Arluison V. EURASNET Interdisciplinary Focus Meeting, "Frontiers in Structural Biology of RNAs and RNPs", August 2010 Poznan, Poland
305.Tunnel coupling between antiferromagnetic thin films
Bataille A. Joint MMM/Intermag confenrece January 2010 Washington DC, USA
306.Etude des populations des domaines hélimagnétiques de films d'Eu(110) par diffraction de neutrons
Bataille A. Colloque Louis Néel March 2010 Albé, France
307.Tunnel coupling between antiferromagnetic thin films
Bataille A. Colloque Louis Néel March 2010 Albé, France
308.Couplage par effet tunnel entre films antiferromagnétiques
Bataille A. LLB May 2010 CEA Saclay, France

309.Colloque Louis Néel (Albé)
Chaboussant G. 3 posters, Fatih Zighem et Thomas Maurer March 2010
310.Charge Transfer or Spin Transition Mechanism in Photoswitchable Molecular Compound $MoCu_2$
Gillon B. International workshop on Single Crystal Diffraction with polarised neutrons FLIPPER2010 January 2010 Grenoble, France
311.Joint charge and spin density refinement
Gillon B. International workshop on Single Crystal Diffraction with polarised neutrons (FLIPPER2010) January 2010 Grenoble, France
312.Electron density study of a di nuclear cobalt(II) complex
Gillon B. MOLMAT 2010 July 2010 Montpellier, France
313.Charge and spin densities joint refinement : first tests
Gillon B. Gordon Conference on Electron Distribution & Chemical Bonding July 2010 Mount Holyoke College, South Hadley, Massachussetts, USA
314.Distribution de spin dans des complexes du Fe(III), précurseurs de nanofils moléculaires
Gillon B. Colloque AFC 2010 Juillet 2010, Strasbourg
315.A new approach to NRSE flippers
Klimko S. Polarized Neutron for Condensed Matter Investigations July 2010 Delft, Netherlands
316.Nanoparticules d'or thermosensibles: Synthèses et Propriétés optiques
Lay Teng L. 12th Journée Matière Condensée August 2010 Tours, France
317.Behaviour of Hydrophobic ions in aqueous media
Malikova N. 24th conference of the European Colloid and Interface Society September 2010 Prague, Czech Republic.
318.Microscopic dynamics under hard and soft confinement
Malikova N. Gordon Conference on "Water and aqueous solutions August 2010 New Hampshire, USA
319.Solute and solvent dynamics in hydrophobic charged systems
Malikova N. 4th International Workshop on Dynamics in Confinement March 2010 Grenoble, France
320.Susceptibilité locale dans les pyrochlores de terre rare
Mirebeau I. Journées de la neutronique JDN 18 June 2010 Remuzat, France
321.Magnetic oder in YbMnO3 studied by neutron diffraction and Mossbauer spectroscopy
Mirebeau I. Novel Physics on the Kagome network January 2010 Orsay, France
322.Magnetism and frustration in hexagonal RMnO3 with triangular lattice
Mirebeau I. Novel Physics on the Kagome network January 2010 Orsay, France
323.Spin dynamics in the classical Kagome antiferromagnet
Robert J. Novel physics on the kagome network 2010 January 2010 Orsay, France.

2011

324. Temperature- and hydration-dependent internal dynamics of stripped human red blood cell vesicles studied by incoherent neutron scattering.
Combet S. Bilayers at the ILL (BILL), workshop, Grenoble, 12-14 janvier, 2011
325.Neutrons for sciences Institut Laue Langevin
Fadda J., Bill2011, Grenoble 12-14 Janvier 2011

SEMINAIRES DANS LES LABORATOIRES NATIONAUX OU INTERNATIONAUX

2008

326.Régulation de l'expression génétique bactérienne par des ARN non codants.
Arluison V. Hôpital Bichat, Unité Ecologie et évolution des microorganismes, September 2008 Paris, France
327.Régulation de l'expression génétique bactérienne par des ARN non codants.
Arluison V. Centre des Cordeliers, LRMA June 2008 Paris, France
328.Régulation de l'expression génétique bactérienne par des ARN non codants.
Arluison V. Laboratoire de Matière et Systèmes Complexes May 2008 Paris Diderot, France
329.A nonadiabatic and nonlinear theory for electron transfer
Aubry S. Séminaire invité CNLS March 2008 Los Alamos, USA
330.Absence of Energy Diffusion in Random Nonlinear Systems
Aubry S. Séminaire invité Mc Master Université Hamilton March 2008 Hamilton, Canada
331.Absence of Energy Diffusion in Nonlinear Random Systems with Anderson Localization
Aubry S. Séminaire invité Max Planck Institute July 2008 Goettingen, Germany
332.L'eau, un liquide exceptionnel, le liquide de la vie
Bellissent Funel M.C "Institut Carnot de Bourgogne" March 2008 Dijon, France
333.Influence of hydration water on protein dynamics. Structure Dynamics Function Relationship
Bellissent Funel M.C "FU Berlin" April 2008 Berlin, Germany
334.Role of hydration water on protein dynamics
Bellissent Funel M.C "Ruhr Universitaet Bochum" 2008 Bochum, France
335.DNPA un outil pour la compréhension des systèmes polymères
Boue F. Société Michelin, centre de recherche de Ladoux June 2008 Clermont Ferrant , France
336.Ordre et fluctuations magnétiques dans les cuprates supraconducteurs
Bourges P. Séminaire à l'université de Rennes April 2008 Rennes, France

337.Nano objets hybrides: synthèse, caractérisation 3D et organisation 2D
Carrot G. SPCSIIRAMIS November 2008 CEA Saclay, France
338.Dénaturation thermique et chimique d'une protéine oligomérique : la C Phycocyanine
Combet S. LLB April 2008 CEA/Saclay, France
339.Dénaturation thermique et chimique d'une protéine oligomérique : la C Phycocyanine
Combet S. Laboratoire de Radiolyse October 2008 CEA/Saclay, France
340.Chaire itinérante de la diffusion neutronique
Chaboussant G. January 2008 Caen, France
341.Utilisation de La Diffusion de Neutrons aux Petits Angles en Matière molle : cas des Nanocomposites.
Jestin J. Université de Clermont Ferrand, Laboratoire des Matériaux Inorganiques (invitant : Prof. C. Taviot Guého) June 2008 Clermont Ferrand, France
342.Influence de l'encombrement cytoplasmique sur la stabilité et la diffusion des protéines
Longeville S. Rencontre LLB Région April 2008 Montpellier, France
343.Microscopic dynamics in clays, experiment and simulation
Malikova N. Institute of Organic Chemistry and Biochemistry, Academy of Science of the Czech Republic, March 2008 Prague, Republic Tchec
344.The Solid like nature of molten polymers : from Rheo Small Angle Neutron Scattering to the identification of novel dynamical properties
Noirez L. Séminaire invité à Jülich February 2008
345.Nouvelles frontières Liquide Solide dans les liquides fondus
Noirez L. Séminaire invité au Ladhyx (invitant : P. Manneville, Ecole Polytechnique) November 2008 Palaiseau, France
346.Diffusion inélastique des neutrons sur spéctromètre 3 axes : de la théorie à la pratique
Petit S. Séminaire invité à l'université de Nancy (invitant Dr Catherine Dufour) Octobre 2008 Nancy, France
347.Systèmes magnétiques à frustration géométrique : approches expérimentales et théoriques
Robert J. Laboratoire Léon Brillouin February 2008 CEA/Saclay, France .
348.Etude de systèmes magnétiques géométriquement frustrés
Robert J. Laboratoire de Physique des Solides March 2008 CNRS/Orsay, France
349.Excitations magnétiques dans les ruthénates et les cuprates supraconducteurs. Etude par diffusion des neutrons
Sidis Y. Habilitation à diriger des recherches 2008 CEA Saclay, France
350.Nouveaux horizons pour la spectroscopie neutronique
Sidis Y. Aspects thématiques Journée scientifique de la diffusion inélastique des neutrons 2008 CEA Saclay, France
351.Magnetism and superconductivity in high Tc superconductors
Sidis Y. FKF Karlsruhe 2008 Karlsruhe, Germany
352.Water, the awkward liquid
Teixeira J. Département de Pharmacie January 2008 Université de Vienne, Autriche

2009

353.Glass Physics and Glass Ceiling
Alba Simionesco C. Women in Physics, Danish group June 2009 Copenhague, Danemark
354.L'autoassemblage d'ARN comme nouveau mode de régulation de l'expression génétique
Arluison V. Centre de Génétique moléculaire CGM June 2009 CNRS Gif sur Yvette, France
355.L'autoassemblage d'ARN comme nouveau mode de régulation de l'expression génétique.
Arluison V. Centre de Biophysique moléculaire CBM February 2009 CNRS Orléans, France
356.Honorate Doctor Presentation University of Crete Heraklion Anomalous Thermostat with purely discrete spectrum
Aubry S. Séminaire invite MPIPKS October 2009 Dresden, Germany
357.Relaxation Dynamics of Proteins: Combining Neutron Scattering and Molecular Dynamics Simulation
Bellissent Funel M.C. Chemical Research Centre of Academy of Sciences January 2009 Budapest, Hongrie
358.Water at Interfaces : From Model Systems to Biomolecules
Bellissent Funel M.C. "Universitaet Leipzig" April 2009 Leipzig, Germany
359.Liquid liquid transition in interfacial water. Connection with biophysics
Bellissent Funel M.C. "Boston University" June 2009 Boston, USA
360.Relaxation dynamics of proteins: Combining neutron scattering and molecular dynamics simulation
Bellissent Funel M.C "MIT" June 2009 Boston, USA
361.Water at Interfaces: From Model Systems to Biomolecules
Bellissent Funel M.C. "TUM" October 2009 Munich, Germany
362.Etude de la Structure et de la Dynamique de l'Eau aux Interfaces
Bellissent Funel M.C "Université de Monastir" November 2009 Monastir, Tunisie
363.Pressure induced denaturation of lysozyme measured by small angle neutron scattering
Combet S. Université de Lille 1 April 2009 Lille, France
364.Seminaire PSI
gukasov a. local susceptibility approach in neutron diffraction december 2009 villigen, switzerland
365.Analyse des polymères par rayonnement
Jestin J. Etude des nanocomposites par diffusion de rayonnement February 2009 Nancy, France

366.Nanocomposites modeles synthetises par voie physico chimique, chimique (greffage), ou magnetique pour le contrôle des propriétés de dispersion et de renforcement.
Jestin J. Université du Maine, département de Chimie (invitant : Prof. C. Chassenieux) Septembre 2009 Le Mans, France
367.Joint Research Activity polarised neutrons
Longeville S. The multi detector for the neutron resonance spin echo spectrometer. April 2009 Delft, Netherlands
368.Influence de l'encombrement cytoplasmique sur la stabilité et la diffusion des protéines
Longeville S. Habilitation à diriger des recherches de l'Université Pierre & Marie Curie December 2009 CEA Saclay, France
369.Etude de la recristallisation d'un fil d'Acier doux tréfilé via une analyse multiéchelles de la microstructure et de la texture
Mathon M.H. Séminaire National sur les Matériaux et leurs Applications (SENAMAP'09) December 2009 Alger, Algérie
370.Hidden Solid like correlations far above Tg in polymers : from Rheo Small Angle Neutron Scattering to the identification of Novel Dynamical Properties
Noirez L. TU Berlin February 2009 Berlin, Germany
371.Nouvelles frontières Liquide Solide dans les fondus de polymères
Noirez L. l'ENS Lyon November 2009 Lyon, France
372.Spin lattice coupling in multiferroic hexagonal RMnO3
Petit S. Séminaire invité à FRMII (Technische Universität München) (invitant Prof Wolfgang Petry) Février 2009 Munich, Allemagne
373.Formation de spins collectifs dans des agrégats magnétiques frustrés
Robert J. Crismat February 2009 Caen, France
374.Degrés de libertés multipolaires dans les systèmes de terre rare
Robert J. Institut Néel March 2009 CNRS Grenoble, France.
375.Recent progresses in high temperature superconductivity
Sidis Y. ENSCI Caen 2009 Caen, France

2010

376.Utilisation de la bibliométrie pour la mise en visibilité des résultats de la recherche du LLB
Alba Simionesco C. Présentation bibliométrie organisée et animée par la Cellule Nationale de l'IST Saclay February 2010 Saclay, France
377.What happens to liquid water anomalies when it is confined at the nano scale?
378.Glass properties of polymers and fragility : how robust are the suggested correlations resist to changes of molecular weight ?
Alba Simionesco C. 2 Séminaires February 2010 University Madison Wisconsin, USA
379.Structural changes of molecular liquids under confinement and consequences
Alba Simionesco C. Chalmers University June 2010 Goteborg, Sweden
380.Versatile Hfq:Nucleic Acids Interactions for the Control of Gene Expression
Arluison V. Université de Gdansk August 2010 Poland
381.Understanding Hfq dependent gene regulation at the molecular level: dynamic competition of small noncoding RNA and mRNA as a means for efficient annealing
Arluison V. Université de La Plata October 2010 La Plata, Argentine
382.Understanding Hfq dependent gene regulation at the molecular level: dynamic competition of small noncoding RNA and mRNA as a means for efficient annealing
Arluison V. Université du Chili October 2010 Santiago, Chili
383.KAM tori and Absence of Diffusion of a wavepacket in the random DNLS model
Aubry S. Séminaire invité IPhT June 2010 Saclay,France
384.KAM tori and Absence of Diffusion of a wavepacket in the 1D random DNLS model
Aubry S. Séminaire invité Université de Postdam June 2010 Postdam, Germany
385.Different aspects of the localization of waves by disorder, nonlinearity and else
Aubry S. A short review Gutzwiller Colloquium MPIPKS August 2010 Gutzwiller, Germany
386.Couplage par effet tunnel entre films antiferromagnétiques
Bataille A. LLB May 2010, CEA Saclay, France
387.Cycle de Conférences (eau en biologie) invitées au Japon 28 février 31 mars 2010
Bellissent Funel M.C.
388. Modèles moléculaires de caoutchouc et leur vérification par DNPA
Boué F. Ecole Polytechnique, Palaiseau, Départ^{mt} de Mécanique June 2010 Palaiseau, France
389.Magnetisme and surperconductivity in high Tc superconductors
Bourges P. Séminaire à l'Université de Bristol January 2010 Bristol, England
390.Novel magnetic order and excitations in high Tc copper oxides superconductors
Bourges P. Séminaire à l'ILL April 2010 Grenoble, France
391.Chaire itinérante de la diffusion neutronique
Chaboussant G. January 2010 Marseille, France
392.La diffusion de neutrons aux interfaces
Cousin F. Rencontres LLB/Région Avril 2010 Languedoc Roussillon, Montpellier,
393.Etude en diffusion de neutrons des composés $CuCrO_2$ et $CuMnO_2$
Damay F. LLB 2010 CEA Saclay, France
394. Local susceptibility approach in frustrated pyrochlores Gukassov A. Séminaire LLB - February 2010 CEA Saclay, France
395.Effet de taille dans les composés relaxeurs et les phases morphotropiques
KIAT J.M
ICMMO, Orsay, mai 2010,

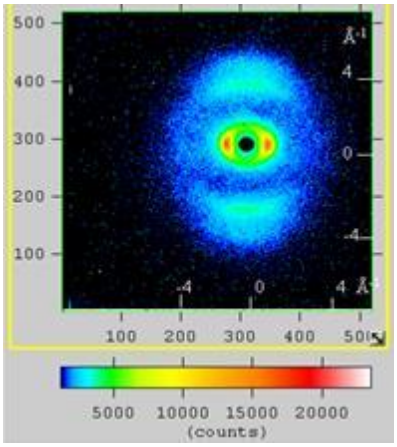
396.Downscaling of ferroelectric and relaxor particles: dielectric and structural properties at nanosizes.
KIAT J.M
Compagnie MUROTA, Yasu (Japon), mai 2010
397.Influence de l'encombrement macromoléculaire sur la diffusion des protéines
Longevile S. Rencontres thématiques IRAMIS, de la Physique et la Chimie vers la Biologie à l'IRAMIS April 2010 CEA Saclay, France
398."Influence of macromolecular crowding on protein stability and diffusion"
Longeville S. Jülich Center for Neutron scattering at FRMII August 2010 Garching, Germany
399.Hidden Macroscopic Shear Elasticity in Viscous Liquids
Noirez L. P. Baroni, CMD 23 September 2010 Warsaw (Poland)
400.Hidden Macroscopic Shear Elasticity in Viscous Liquids
Noirez L. Worshop Passion for Knowledge September 2010 Donostia (Espagne).
401.Neutrons, Multiferroïques et Manganites
Petit S. Séminaire à l'ESPCI (invitant Dr Benoit Fauqué) Mai 2010 Paris, France
402.Neutrons, Multiferroïques et Manganites
Petit S. Séminaire au LPS (invitant Prof Pascale Foury) Mai 2010 Orsay, France
403.Hydration of aminoacids. From powders to solutions
Teixeira J. May 2010 Université de Messina, Italy

2011

404.Séminaire sur l'eau surfondue prévu, LPS, ENS Paris
Que deviennent les anomalies de l'eau en géométrie confinée ?
Alba-Simionesco C., F Audonnet, J Deschamps, N Brodie-Linder, M.Schöffel, 18 Mai 2011
405.Corrélations Solides dans les Liquides
Noirez L., SPEC, Orme des Merisiers, Saclay, 03 Février 2011
406.-Evidences for coexisting distinct phases in interfacial water
Zanotti J.M. Institut des Sciences de la Terre d'Orléans
Orléans, France.

Patents

✓ **"2-D High Resolution Detector for Neutron Scattering."**
P. Baroni & L. Noirez, n°0502379 of the 24/03/2005 – PCT .
Using Light to see Neutrons: a new two-dimensional detector with high resolution



High resolution 2D neutron scattering pattern obtained by stretching a thick sample.of PTFE (Teflon). PTFE is a semi-crystalline polymer. The pattern shows the orientation of the crystalline structure*

An exclusive license agreement has been signed in January 2010 with Maatel (SA Maatel, Voreppe www.maatel.fr) for the patent n°0502379 of the 24/03/2005 related to the detector "Barotron". This detector is based on the coupling of a photoemission means adapted for the neutron radiation, and a cooled low light level charge-coupled detection device. This two-dimensional detector has a very low detection threshold (<1 neutron/cm^2/s) and a high spatial resolution (0.5 x 0.5mm) for a very detailed observation of the reciprocal space. The diffraction pattern illustrates the performances of this new detector.

✓ *"Improved method to determine dynamic properties in fluids and liquids."* P**. Baroni, H. Mendil & L. Noirez, n°0510988 of the 27/11/2005 - PCT.**
The Laboratoire Léon Brillouin has developed a new type of substrate intended to replace the aluminum fixtures traditionally used in rheology. The material provides an almost complete wetting. It is non-metallic, not porous, of high density, waterproof, chemically, physically and mechanically resistant. With this new substrate, the sensitivity of the rheological measurement is improved of several decades.

✓ **"Mineral electrolyte membrane for electrochemical devices", J.-M. Zanotti & K. Lagrené**

Patent # FR 10/56178

The electrolytes of lithium metal batteries are made of lithium salts dissolved in a polymer matrix, usually Poly(Ethylene Oxide) (PEO, $[CH2\text{-}CH2\text{-}O]_{n\approx3000}$). In these systems, the ionic conductivity is mainly controlled by the dynamics of the polymer chain so that, it is necessary to maintain the electrolyte above its melting point (55°C) to reach a sustainable conductivity (10^3 $S.cm^{-1}$). As an example, for cars propulsion, the electrolyte is maintained at 80°C. Such a high temperature is a very significant drawback to the extension of this technology to mobile electronic systems used at room temperature (phones, computers…). We have proposed an original way to significantly increase the ionic conductivity at room temperature: the conjunction (see Fig ?) of *i)* nanometric confinement and *ii)* ionic conduction in one dimension

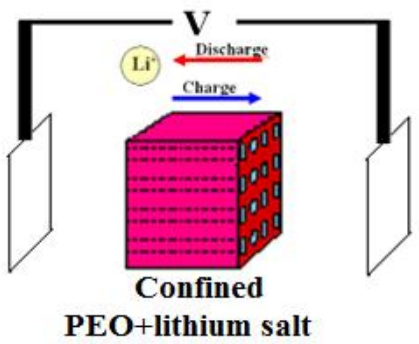


Figure : The 30-35 K decrease of the electrolyte melting temperature induced by its confinement within the 20 nm nanometric pores (Gibbs-Thomson effect) of an Anodized Aluminum Oxyde (AAO) membrane (in red) is expected to lead to a significant increase of conductivity at room temperature. The very high directionality of the pore systems, will not affect the ionic transport properties from one electrode (open vertical squares) to the other.

Track-etched nanoporous membranes are prepared by chemical etching of ion-tracks in polymer films. Our patent is based on the idea that such nanopores may vary in size with mechanical constraint applied to the film. Filling nanopores with a magnetostrictif materials and probing the magnetic state of each corresponding nanowire would allow us to map the constraint applied to the surface of the film. Variation of this idea uses piezoelectric polymer films with nanopores varying in size with the voltage difference applied to both sides of the film.

ORGANISATIONS MANIFESTATIONS SCIENTIFIQUES

- ALBA-SIMIONESCO C.

CONFIT, *Grenoble, mars 2009*

ECNS2011, *European conference on neutron scattering 2011, Prague 2011*

- BELLISSENT -FUNEL MC

"Workshop on Neutrons and X-rays meet Biology"

M.-C. BELLISSENT-FUNEL, R. STEITZ

February 25-27, 2008, Helmholtz Zentrum Berlin

6th International Discussion Meeting on Relaxations in Complex Systems"

M.-C. BELLISSENT-FUNEL, chair of: **"Water"** Session

August 30th - September 5th, 2009, Roma

"Horizons in Hydrogen Bond Research"

M.-C. BELLISSENT-FUNEL, chair, M. SUHM co-chair

September 14-18, 2009, Paris

- BOURGES P .

Supra 2010, Gif/Yvette, 14-15 avril 2010, national

- CARROT G.

Journée Chimie à l'IRAMIS,

CEA-Saclay, avril 2009 (organisateur avec Luc Barbier, responsable Communication IRAMIS).

- CHABOUSSANT G.

-Organisation de **l'école du GDR MICO** *(Juin 2010, Aussois)*

-Organisation de la **Chaire Itinérante de la Neutronique** *(2005-2010)* sous l'égide de la Société Française de la Neutronique [http://www.sfn.asso.fr/]

- COUSIN F.

- Co-organisateur des **10th International conference on Surface X-ray and Neutron Scattering** (*2-5 juillet 2008 à Saint-Aubin).* Chargé particulièrement de l'Edition des proceedings liés à la conférence SXNS.

- Co-organisateur des **6émes Rencontres LLB-Soleil** '**Matière Molle'** *(18-19 mars 2008 à Saint-Aubin)*

-Co-organisateur des tables rondes Physico-chimie et Biologie des comités de sélection du LLB (printemps 2008, automne 2008).

-Co-organisateur d'une Ecole thématique de la **SFN** '*Neutrons et Matière Molle*' (23 au 27 mai 2009 à La Grande Motte).

- DAMAY F.

-Organisation du comité de sélection du LLB, section Diffraction de poudres (2009)

- GILLON B

-Microsymposium **Charge, Spin and Momentum density studies in Material Science**, chair: B.Gillon, co-chair : P. Macchi, IUCr2008, XXI *Congress of the International Union of Crystallography, 23-31 Août 2008, Osaka, Japon.*

- Session **Spin density**, organisateur: B.Gillon, Sagamore XVI, Conference on electron charge, spin and momentum density, *2-7 Août 2009, Santa Fé (Etats-Unis).*

- Session **Grands Instruments**, B. Gillon et J.P. Itié, Colloque AFC 2010, *7–10 Juillet 2010, Strasbourg*

- JESTIN J.

-Conférence **SXNS-10**, International Conference on Surface X-ray and Neutron Scattering, *Synchrotron SOLEIL Saint Aubin, 2-5 juillet 2008.*

-**Workshop 6ème rencontres LLB/SOLEIL** sur le thème « matière molle », *Synchrotron SOLEIL Saint Aubin, 18-19 mars 2008.*

-Ecole "Neutron et Matière Molle" **JDN 17**, journées de la diffusion neutronique, **La Grande Motte, 23-29 mai 2009**.

- LEE LAY TENG

-Organisation de la Journée de Rencontre du **RTRA** (Thème 3 – Matière Complexe), Orsay, 24 Septembre 2009.

- MALIKOVA N.

-co-organisation du workshop **7emes Rencontres LLB-Soleil "***Confinement et Nano -systèmes", 12-13 MARS 2009* Synchrotron Soleil, national

-co-organisation de la XVIIIth international conference **"HORIZONS IN HYDROGEN BOND RESEARCH",** Foyer International d'Accueil de Paris (FIAP), *13-18 September 2009, international*

-co-organisation de **l'Ecole Thématique ("Neutrons et Simulations")** des Journées de la Diffusion Neutronique **(JDN18),** Remuzat (Drome), *4-10 juin 2010, national*

- PETIT S.

-Organisation scientifique de l'école thématique associée à la 16ème édition des **«JDN »** (2008) : « Diffusion inélastique des neutrons » (en collaboration avec S Rolls, ILL)

- PETITGRAND D.

-Organisateur de la Table Ronde « excitations » (comité 5) du LLB

- ZANOTTI J-M

- 7èmes rencontres LLB-Soleil sur la thématique «confinement et nano-systèmes », 12-13 mars 2009, Saint-Aubain.

MEMBERSHIPS

PARTICIPATION à différents organes de gestion de la recherche, à des comités de programmes, sociétés savantes, jury de thèse ou HDR, ou en tant que conseiller

- ALBA-SIMIONESCO C

-Directrice du LLB au 1/1/09
-Membre du conseil scientifique de l ILL
-membre du Conseil scientifique de l' ESS
-Membre du groupe de travail européen ESFRI
-Membre du groupe de concertation Thématique , PCN, roadmap des infrastructures de recherche
-Membre extérieur de la 31 section Paris 11;
-Membre extérieur de la 28ième section, Strasbourg et Lyon
-presidente jury MdConf ESPCI
-membre de jury de thèses (rapporteurs) et HDR : 4 thèses (dont international) et 1HDR

- ARLUISON V

Membre d'un comité de sélection Chaire CNRS/U. Nancy
2009: Examinateur thèse en biophysique U. Paris 6
2010: Rapporteur thèse en biophysique U. Orléans

- AUDONNET F

- participation à des comités de programme (ILL, HMI, ESRF, Soleil …) : Tables Rondes du LLB

- BATAILLE A

Co-organsiation de la table ronde C, puis III du LLB.

- BELLISSENT –FUNEL M-C

- Membre du Comité SIMI8 de l'Agence Nationale de la Recherche (1er janvier 2010)
-Comité de programme de l'ESRF, NIST
- membre de jury de thèses (rapporteurs) : 30 et HDR : 10
-Scientific advisor (Helmholtz Zentrum Berlin) pour la création du
Département « Soft Matter and Functional Materials »
(1er janvier 2008 au 31 janvier 2010)
-Membre de sociétés savantes : Membre de SFP, SFN, Société Française de Biophysique

- BOURGES P

- FRMII entre 2006 et fin 2008
- membre de jury de thèses : HDR : 1 fois jury + 1 fois rapporteur
These : 4 fois rapporteurs

- BRULET A

- 4 jury de thèses (membre)
- Société Francaise de la Neutronique,
- Groupe Français des polymères

- CARROT G

-2 jury de thèses
- American Chemical Society, Groupe Français Polymères, Société Française de Neutronique.

- CHABOUSSANT G

-Membre élu du bureau de la Société française de la neutronique (SFN) depuis 2004
-Membre élu (2008) du Comité National de la Recherche Scientifique (CoNRS) – section 06
-Membre élu (2008) de la Commission Interdisciplinaire CID41 « Gestion de la Recherche » du CoNRS.
- participation à des comités de programme
-Membre du comité de sélection des demandes de temps de faisceau de la source de neutrons américaine NIST (2005-2008)
-Responsable de l'organisation des comités de sélection d'accès aux faisceaux de neutrons du LLB (« tables rondes ») pour ce qui relève du magnétisme et de la supraconductivité (2004-2008)

- COMBET S

-Membre de la commission de spécialistes, Sections 64 à 68, Université de Cergy-Pontoise (2005-2008).
-Co-organisatrice de la Table Ronde Physico-Chimie et Biologie des comités de sélection du LLB (2006-2008).

- COUSIN F

- Membre du comité scientifique des *16èmes Rencontres Rossat-Mignot* (28-30 mai 2010, Albé).
- Membre du comité scientifique des *17èmes Rencontres Rossat-Mignot* (27-29 mai 2009, La Grande Motte)
- Membre du comité scientifique des *18èmes Rencontres Rossat-Mignot* (8-10 juin 2010, Rémuzat)
-Co-organisateur d'une Ecole thématique de la SFN '*Neutrons et Matière Molle*' (23 au 27 mai 2009 à La Grande Motte).
Membre du Conseil d'Ad-ministration de la SFN (trésorier) depuis 2007 (réélu en 2009).
- Membre de la Société Française de Neutronique
-Membre des comités de programme du LLB (à partir printemps 2010)
-3 participations à des jurys de thèses.

- DAMAY F

-Organisation du comité de sélection du LLB, section Diffraction de poudres (2009)
-Activités éditoriales pour Acta Crystallographica B et Physical Review B

- DESERT S

-Membre du Comité instrumental du LLB (2007)
-Partenariat JRA Neutron Optic FP6 (Multifaisceaux) et FP7 (Focalisations SANS miroirs)

- FADDA G

-Participation à différents organes de gestion de la recherche (section du CNRS, expert scientifique CEA, SFP, SFN…) Comité de sélection Université Paris 13, section 28 ; Comité de Selection Université d'Evry Val d'Essonne ;

- GILLON B

- European Charge Density Meeting, 6-11 Juin 2008, Gravedone, Italy.
- Sagamore XVI, Conference on electron charge, spin and momentum density, 2-7 Août 2009, Santa Fé (Etats-Unis).
- International workshop on Single Crystal Diffraction with polarised neutrons (FLIPPER2010), 26-30 Janvier 2010, Grenoble.
- Colloque AFC 2010, 7–10 Juillet 2010, Strasbourg
- Membre de la Commission 'Charge, Spin and Momentum density', International Union of Cristallography (IUCr) depuis Septembre 2005.

- GOUKASSOV A

-Expert senior CEA, membre bureau SFN
- Comité de sélection ILL en 2008.

- JESTIN JACQUES

-Membre des Comités de sélection du LLB : Evaluation des propositions d'expériences et attribution du temps de Neutron 2008-2009.
-Membre du comité de sélection pour le recrutement d'un maître de conférence dans le cadre d'une chaire d'excellence CEA/Université (31 section, poste 2044), membre expert pour le CEA (2010).

- KLOSEK V

Memberships
-Membre de la Société Française de Neutronique
-referee pour les revues internationales *JOURNAL OF SOLID STATE CHEMISTRY* et *EXPERIMENTAL MECHANICS*

- LAPP A

- membre du jury de thèse : 1

- LEE LAY TENG

- Membre du comité de sélection ANR (Programme blanc/jeunes chercheurs) (2007)
- Membre du bureau RTRA (Thème 3 – Matière Complexe), (2007-présent)

- MALIKOVA N

- membre du comité de sélection pour l'emploi n° 2044 MCF, "Chaire Université de Paris Sud 11 – CEA", Mai 2010
- membre d'Institute of Physics (Grande Bretagne).

- MATHON M-H

- Participation à des jurys : 4 de thèse.
1 HDR

- MENELLE A

-Membre du Comité National, section 05 2004-2008.
-Membre du jury de thèse de R. Jribi.
-Membre du comité scientifique de l'école grand instruments du plateau de Saclay.

- MIGNOT J-M

ILL : Sous-comité 4 - Magnetic excitations (depuis le printemps 2010).

- MIREBEAU I

-comité de sélection des expériences de l'ILL collège 5B à partir de sept. 2010.
-comité de sélection des tables rondes du LLB depuis printemps 2010.
-membre de la commission universitaire CCSU 28 (univ. orsay).
- rapporteur de thèses : J. Robert (2007) ; B. Medhaoui (2008) ; Y. Chapuis (2009) .
-rapporteur d'HDR : B. Canals oct. 2010

- NOIREZ L

- Membre du comité scientifique de l'AFC 2008, 7-10 Juillet 2008, Rennes (national),
- Membre du comité scientifique de la 11th European Conference on Liquid Crystals (6-11 Février 2011).
- Membre de jury de thèses (rapporteurs) et HDR, : 1 (R. Meziane, *Structure, Dynamique et transition de phases d'un cristal liquide (8CB) en milieu polymère*, le 24 Octobre 2008 à l'Université de Lille I, resp. de thèse U. Maschke).
-Membre du bureau de l'Association Française de Cristallographie (AFC) de 2005 à 2009.

- OTT F

- Membre du bureau « Instrumentation à ses limites » du RTRA Triangle de la Physique.
- Participation au comité scientifique des conférences NOP Neutron Optics.
- Participation aux comités de sélection dans différents centres de neutrons
  - BNC (Budapest Neutron Centre) (2005 – 2008
  - JCNS (Jülich Centre for Neutron Science) (2007 – 2009).

-Rapporteur de 2 thèses en 2009

- PETIT S

-Membre des comités de sélection de différents TGI
-ILL (collège 4) 2006 - 2009
-LLB (magnétisme et supraconductivité) 2006 - 2009
-NIST depuis 2007

- PETITGRAND D

Organisateur de la Table Ronde « excitations » (comité 5) du LLB

- PFEUTY P

membre d'un comité AERES à Montpellier janvier 2010

- PORCHER F

- 2 jurys de thèse (non rapporteur)

- ROBERT J

- Membre du comité scientifique de l'école *Journées de la Diffusion Neutronique 18 « Neutrons et Simulations »*, Rémuzat, France, juin 2010.
- Comité scientifique de sélection d'expériences du LLB : organisateur table ronde Magnétisme 2009 ; rapporteur table ronde Excitations 2010.

- SIDIS Y

-Membre du CET [section 28] - Université Paris IX, Orsay (2007-2008
-Membre du comité de sélection de FRM-II (2009-2010)

- TEIXEIRA J

-Evaluation d'ANR
-Evaluation de projets italiens
- Participation au comité de programme de Helmholtz-Zentrum **Berlin**
- Membre de jury de thèses (rapporteurs) et HDR : 55 jurys
- Expert à l'IAEA (Vienne): actions au Brésil et en Egypte
- Membre de : Société Française de Physique
Société Française de Neutronique
Institute of Physics
American Physical Society

- ZANOTTI J-M

- 2006-2008 : Membre du sous-comité ILL N°9 : « Soft Matter ».

Sponsoring of workshops conferences and summer schools 2008-2011

2008

Nom	Organisateur	Dates, lieu	Financement LLB	Page web
Ecole thématique : "La Diffusion inélastique des neutrons pour l'étude des excitations dans la matière condensée: des notions fondamentales aux dernières avancées".	SFN S. Petit (LLB), S. Rols (ILL)	23 -28 mai 2008 Albé	15000 €	http://www.sfn.asso.fr/JDN/JDN16/index.html
(PSD4SC) Position Sensitive Detectors for Single Crystals	LLB, A. Goukassov	12-14 Novembre 2008 Loges en Josas,	3000 €	http://www.psd4sc.org/

2009

Nom	Organisateur	Dates, lieu	Financement LLB	Page web
7èmes Rencontres scientifiques de Saint-Aubin SOLEIL - LLB , « Confinement et Nanosystèmes »	LLB et Soleil J M Zanotti et N Malikova (LLB)	12-13 mars à Soleil, Plateau de Saclay	1500 €	http://www-llb.cea.fr/SOLEIL-LLB/confinement2009/index.htm
ICNS 2009 International Conference on Neutron Scattering 2009	MRS	3-7 mai 2009, Knoxville, USA	5000$ (envion 3800 €)	http://www.mrs.org/s_mrs/sec.asp?CID=18023&DID=231750
Ecole thématique : "Apports des Symétries en Matière Condensée"	GDR Mico I Mireabeau et F. Bouree(LLB)	11 - 18 mai 2009, Presqu'ile de Giens	1500 €	https://www.ill.eu/news-events/events/past-events/ecole-theorie-des-groupes/

École Thématique : « Neutrons et Matière Molle ».	SFN J. Jestin, F. Cousin (LLB)	23 au 29 mai 2009 La Grande Motte	20000 €	http://www.sfn.asso.fr/JDN/JDN17/index.html
XVIII International Conference on "Horizons in Hydrogen Bond Research"	M C Bellissent Funel	14-18 Septembre 2009, Paris	6000 €	http://www.lptl.jussieu.fr/users/jcle/2009_fiap/
Business meeting du JRA « Sample environnement » du projet NMI3 FP7	B. Annighofer et J M Mignot, LLB	29-30 octobre 2009	2000 €	
(PSD4SC) Position Sensitive Detectors for Single Crystals	LLB, A. Goukassov	12-14 Novembre 2008 Loges en Josas,	3000 €	

2010

Nom	Organisateur	Dates, lieu	Financement LLB	Page web
Flipper 2010 International Workshop on Single-Crystal Diffraction with Polarised Neutrons	ILL et B. Gillon (LLB)	26-30 janvier 2010 à Grenoble	2500 €	http://www.ill.eu/news-events/workshops-events/flipper-2010/
Business meeting du JRA « **Polarised neutrons**» du projet NMI3 FP7	LLB, A. Goukassov	février 2010, Paris	2000 €	Pas de page web
CONFIT 2010 4th International Workshop on Dynamics in Confinement Institut Laue - Langevin Grenoble, France"	ILL et C. Alba Simionesco (LLB)	3-5 mars 2010 à Grenoble	5000 €	http://www.ill.eu/news-events/events/confit2010/

SUPRA 2010 Réunion thématique sur la supraconductivité non conventionnelle	LLB (Ph Bourges)	15-16 avril 2010, Gif sur Yvette (DR4 CNRS)	1000 €	http://ghmfl.grenoble.cnrs.fr/spip.php?article372
École Thématique « Neutrons et **Simulations »**	SFN et N. Malikova (LLB)	4 au 10 Juin 2010 à Rémuzat dans la Drôme	20000 €	http://www.sfn.asso.fr/JDN/JDN18/index.html
Ecole « The power of neutron scattering techniques in nano and bio sciences »	LLB : J. Jestin et J. Teixeira	12-16 juillet 2010 à Jaca	3000 €	
SENSE 2010 "Superconductivity Explored by Neutron Scattering Experiments**"**	ILL	20-23 octobre 2010, Grenoble	2000 €	Pas encore de page web

2011

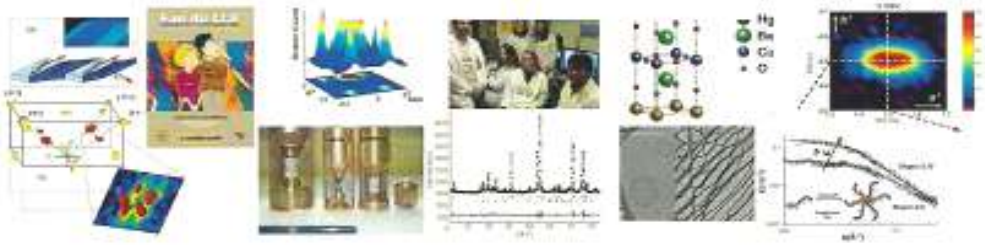
Nom	Organisateur	Dates, lieu	Financement LLB	Page web
19e Journées de la Diffusion Neutronique - JDN19	F. Cousin, Malikova G. Chaboussant	6 - 10 juin 2011 Batz-sur-mer (Loire-Atlantique)	10000€	http://www.sfn.asso.fr/JDN/JDN19/index.html
XXII International Congress and General Assembly of the IUCr	C. Alba-Simionesco-A. Goukassov	22-30 août 2011 Madrid	2000€	http://www.iucr2011madrid.es/

5th European Conference on Neutron Scattering (ECNS 2011)	C. Alba-Simionesco-J.P. Visticot-A. Menelle	17-22 juillet 2011 Prague	2000€	www.ecns2011.org

2008-2009

LABORATOIRE LEON BRILLOUIN

ANNUAL REPORT



Un logo pour LLB/Orphée

Logos created by members of Orphée-LLB for the competition "A new logo for LLB-Orphée"

Laboratoire Léon Brillouin
CEA SACLAY
91191 Gif-sur-Yvette Cedex FRANCE
Internet : http://www-llb.cea.fr

Condensed Matter

- Unusual magnetic order in the pseudogap region of the superconductor $HgBa_2CuO_{4+\delta}$
- Electronic liquid crystal state in high temperature superconductor $YBa_2Cu_3O_{6.45}$
- Magnetoelectric coupling in $BiFeO_3$ single crystals and thin films
- Superconducting pairing and electronic anomalies induced by the spin collective mode in HTC superconductors

Structure and Phase transitions

- Influence of the alteration layer morphology on the silicate glass corrosion mechanism : role of Ca and Zr
- Spin ladder iron oxide : $Sr_3Fe_2O_5$
- Hidden degrees of freedom in aperiodic crystals
- Ising versus XY Anisotropy in Frustrated $R_2Ti_2O_7$ Compounds as "Seen" by Polarized Neutrons

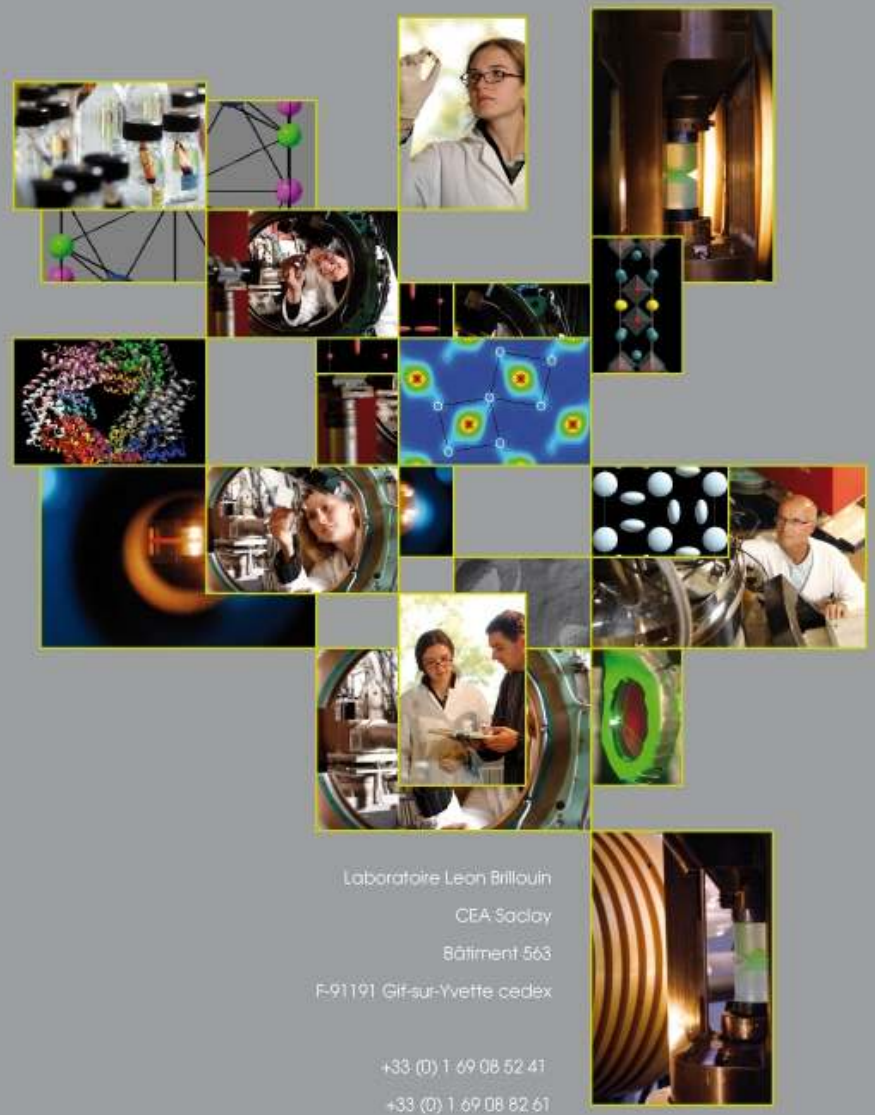
Soft Matter

- Control of roughness at interfaces and the impact on charge mobility in all-polymer field-effect transistors.
- Anisotropic reinforcement of nanocomposites tuned by by magnetic orientation of the filler network.
- Looking at micellisation of gradient copolymers in supercritical carbon dioxide.
- Self assembly of fatty acids in aqueous solutions.

Life Sciences and Biology

- Influence of macromolecular crowding on protein stability.
- Coupling of laser excitation and inelastic neutron scattering measurement.
- Neutrons and water structure: the heavy water bridge.

Publications



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Laboratoire Léon Brillouin **Annual Report** / 2010

Annual Report 2010

Laboratoire Léon Brillouin

Highlights 2010

AXE 1

GIANT MAGNETIC HARDNESS IN THE SYNTHETIC MINERAL FERRIMAGNET K2Co3II(OH)2(SO4)3(H2O)2
S. Vilminot1, P. J. Baker2, S. J. Blundell2, T. Sugano3, G. André4, M. Kurmoo5

NORMAL-STATE SPIN DYNAMICS AND TEMPERATURE-DEPENDENT SPIN RESONANCE ENERGY IN AN OPTIMALLY DOPED IRON ARSENIDE SUPERCONDUCTOR
D. S. Inosov1, J. T. Park1, P. Bourges2, D. L. Sun1, Y. Sidis2, A. Schneidewind3, K. Hradil3, 4 D. Haug1, C. T. Lin1, B. Keimer1 and V. Hinkov1

NOVEL MAGNETIC STATE IN THE INCIPIENT KONDO SEMICONDUCTOR CeRu2Al10
Julien Robert1, Jean-Michel Mignot1, Gilles André1, Takashi Nishioka2, Riki Kobayashi2, Masahiro Matsumura2, Hiroshi Tanida3, Daiki Tanaka3, and Masafumi Sera3

PRESSURE INDUCED FERROMAGNETIC TO ANTIFERROMAGNETIC TRANSITION IN BiMnO3 MULTIFERROIC
S. E. Kichanov1, O. L. Makarova2, I. Mirebeau3, D.P. Kozlenko1, A. A. Belik4

MULTIFERROIC BFO FILMS
J. Allibe1, I. C. Infante1, H. Béa1, B. Dupé2, Dkhil2, K. Bouzehouane1, S. Fusil1, E. Jacquet1, G. Geneste2, F. Ott3, S. Petit3, M. Bibes1, A. Barthélémy1

EVIDENCE OF THE SPIN MELTING IN THE SPIN LIQUID Tb2TI2O7 PYROCHLORE
A. P. Sazonov1, A. Gukasov1, I. Mirebeau1 and P. Bonville2

AXE 2

NANO-STRUCTURE OF AMPHIPHILES-BASED SYSTEMS USED IN CONSERVATION OF CULTURAL HERITAGE
M. Baglioni1, D. Berti1, J. Teixeira2, P. Baglioni1

LOCAL ORDER IN Te-RICH Te-Ge-X (X=Ga, I, Se) IR OPTICAL GLASSES
P. Jóvári1, I. Kaban2, B. Bureau3, A. Wilhelm3,4, P. Lucas4, B. Beuneu5 , D. A. Zajac6

DEFORMATION MECHANISMS OF A BCC STEEL UNDER UNIAXIAL LOADING STUDIED BY NEUTRON DIFFRACTION
V. Klosek1, R. Dakhlaoui2, L. Vincent2, B. Marini2, M.H. Mathon1

Effect of the Pb2+ lone electron pair in the structure and properties of the double perovskites Pb2Sc(Ti0.5Te0.5)O6 and Pb2Sc(Sc0.33Te0.66)O6: relaxor state due to intrinsic partial disorder.
S.A. Larrégola1, J.A. Alonso,2* M. Algueró2, R. Jiménez2, E. Suard3, F. Porcher4, J.C. Pedregosa1

GIANT MAGNETIC HARDNESS IN THE SYNTHETIC MINERAL FERRIMAGNET K2Co3II(OH)2(SO4)3(H2O)2
S. Vilminot1, P. J. Baker2, S. J. Blundell2, T. Sugano3, G. André4, M. Kurmoo5

THE ISOTOPE EFFECT IN HYDRATION OF CEMENT
S. Mazumder1, D. Sen1, J. Bahadur1, J. Klepp2, H. Rauch3, J. Teixeira4

AXE 3

HOW MUCH ANESTHETICS EFFECTS DEPEND ON THE LENGTH OF ALCOHOL CHAINS?
M. Klacsová1, N. Kučerka1,2, D. Uhríková1, J. Teixeira3 and P. Balgavý1

MULTIPLE SCALE REORGANIZATION OF ELECTROSTATIC COMPLEXES OF POLY(STYRENESULFONATE) AND LYSOZYME
F. Cousin1, J. Gummel1, F. Boué1

EFFICIENT APPROACHES FOR THE SURFACE MODIFICATION OF PLATINUM NANOPARTICLES VIA CLICK CHEMISTRY
E. Drockenmuller1, I. Colinet2, F. Gal2, D. Damiron1, H. Perez3, G. Carrot2

A CHEMICAL PATH TO TURN FROZEN AGGREGATES BASED ON AMPHIPHILIC DIBLOCK COPOLYMERS INTO DYNAMIC MICELLES EVIDENCED THROUGH SANS EXPERIMENTS
E. Lejeune1, J. Jestin2, C. Chassenieux1, O. Colombani1

HIERARCHICAL STRUCTURES BASED ON SELF-ASSEMBLED DIBLOCK COPOLYMERS WITHIN HONEYCOMB MICRO-STRUCTURED POROUS FILMS
P. Escale1, M. Save1, A. Lapp2, L. Rubatat1, L. Billon1

GLYCODYNAMERS : DYNAMIC POLYMERS BEARING OLIGOSACCHARIDES RESIDUES – GENERATION, STRUCTURE, PHYSICOCHEMICAL, COMPONENT EXCHANGE AND LECTIN BINDING PROPERTIES
Yves Ruff 1, Eric Buhler 2,3, Sauveur-Jean Candau 1, Ellina Kesselman 4, Yeshayahu Talmon 4, and Jean-Marie Lehn*,1

LA LETTRE DU LLB-Orphée
Avril 2011

Prochaine date limite des propositions d'expériences : 1er mai 2011
http://www-llb.cea.fr

Réexamen de sureté d'Orphée

Le dossier de sureté du réacteur Orphée vient d'être réexaminé pour la seconde fois depuis le démarrage du réacteur en 1980. Près de trois ans de préparation ont été nécessaires pour réaliser tous les contrôles non-destructifs et les différentes études de sécurité contenues dans le dossier déposé auprès de l'Autorité de Sureté Nucléaire (ASN) fin mars 2009. L'ensemble des travaux préparatoires a permis de démontrer la très bonne tenue dans le temps de tous les éléments du réacteur. Après un peu plus d'un an d'instruction du dossier, l'Institut de Radioprotection et Sureté Nucléaire (IRSN) a soumis son rapport d'évaluation technique en juillet 2010 au « Groupe Permanent » (GP) , groupe d'experts indépendants mandatés par l'ASN pour évaluer les conditions dans lesquelles l'exploitation du réacteur peut se poursuivre. Dans son rapport rendu le 23 octobre 2010, le GP souligne la qualité du dossier de réexamen transmis par Orphée et considère que l'exploitation du réacteur peut être poursuivie sous réserve de la mise en œuvre de quelques recommandations et engagements.

Point science : « Propriétés structurales et magnétiques d'hydrures complexes $RMn_{2-y}Fe_yH_6$ synthétisés sous très haute pression gazeuse (R=Y, Terre rare ; y ≤ 0.2)

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[2] *Institute of Polish Chemistry. PAN, UL. Kasprzaka 44/52, 01224 Warsaw, Poland*
[3] *LLB, CEA-CNRS, CEA/Saclay, 91191 Gif-sur-Yvette, France*

Les composés RMn_2 peuvent absorber jusqu'à 4.5 H/f.u. pour des pressions d'hydrogène inférieures à 10 bars. Les hydrures RMn_2H_x cristallisent dans des structures dérivées de celles des composés parents RMn_2 (C14 ou C15), l'hydrogène occupant des sites interstitiels R2Mn2 [1]. En appliquant une pression de 1.7 kbar d'hydrogène (deutérium) aux composés RMn_2 nous avons pu synthétiser de nouvelles phases $RMn_2H(D)_6$ (R= Y, Tb, Gd, Ho, Dy, Er) cristallisant dans une structure cubique de type fluorite (G.E. *Fm3m*, *a* =6.66-6.75 Å) [2-4]. Les atomes R et la moitié des atomes de Mn occupent statistiquement le site 8*c* tandis que les atomes Mn occupent le site 4*a* et sont entourés par 6 atomes d'hydrogène (site 24*e*) (Fig. 1a). Contrairement aux hydrures RMn_2H_x (x ≤ 4.5), cette structure n'est pas dérivée de la structure initiale C14 ou C15 et est très stable une fois formée. Alors que cette phase peut être obtenue pour R= Y et différentes terres rares, seulement 10 % du Mn peut être substitué par du Fe pour former une phase $RMn_{2-y}Fe_yH_6$. L'étude par diffraction de neutrons (DN) sur *3T2* au LLB montre que le Fe se substitue au Mn sur le site 4*a* [5]. Ces composés ayant une structure proche de celles d'hydrures complexes de type Mg_2FeH_6, nous nous attendons à observer des liaisons Mn-H covalentes et à pouvoir décrire la structure électronique de ces phases avec une formule de type $(R^{III}Mn^{II})^{5+}(Mn^{I}H_6)^{5-}$. C'est le premier système où l'on peut observer le passage d'un hydrure de type interstitiel à un hydrure complexe en augmentant la pression d'hydrogène.

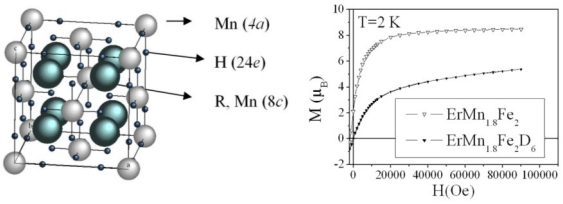

Fig. 1) a) Structure des composés RMn_2H_6 b): Courbes d'aimantation à 2 K de $ErMn_{1.8}Fe_{0.2}$ et $ErMn_{1.8}Fe_{0.2}H_6$

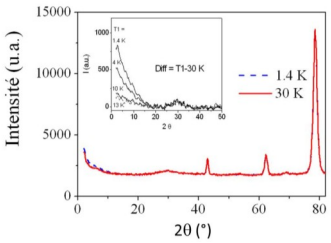

Fig. 2) Diffractogramme de neutrons de $ErMn_{1.8}Fe_{0.2}D_6$ à 1.4 et 30 K mesuré sur G4.1. En insert : courbes différences entre les diagrammes à T_1 et 30 K.

YMn_2D_6 a un comportement paramagnétique de Curie modifié qui peut s'expliquer par la somme d'un comportement paramagnétique de Pauli et de Curie-Weiss, lié aux différentes propriétés électroniques des deux types d'atomes de Mn. Lorsque R est une terre rare magnétique, l'aimantation à 2 K ne sature pas, même à fort champ, et la valeur de M_S extrapolée à champ nul est environ la moitié de celle obtenue pour le composé parent RMn_2 (Fig. 1b). Les diagrammes de DN à basse température (*G4.1* , LLB) montrent en ce cas l'existence d'un ordre magnétique à courte distance avec coexistence d'interactions ferromagnétiques et antiferromagnétiques [4] (Fig. 2). Cet ordre à courte distance s'explique par le désordre chimique des atomes R et Mn sur le site 8*c*, deux atomes d'Er pouvant se situer aléatoirement en premier ou second voisins l'un de l'autre.

Références
[1] Goncharenko I. N., Mirebeau I., Irodova A. V., Suard E., Phys. Rev. B, 56 (1997) 2580
[2] Wang C-Y, Paul-Boncour V, Liu R-S, et al. Sol. State. Comm., 130 (2004) 815-20.
[3] Paul-Boncour V, Filipek S M, Dorogova M et al. J. Sol. State Chem., 178 (2005) 356-62
[4] Paul-Boncour V, Filipek S M, Wierzbicki R et al. J. Phys. : Cond. Mat., 21 (2009) 016001
[5] Paul-Boncour V, Filipek S M, Sato R et al. J. Solid State Chem., 184 (2011) 463-46

Le nouvel instrument de neutrons polarisés 5C1

In November 2010, polarized hot neutron diffractometer 5C1 was replaced by VIP (Very Intense Polarized neutron diffractometer). Compared to the old 5C1, VIP is equipped with radial collimator and 64 position sensitive detectors which cover one steradian angular range, so the efficiency of the instrument is increased by an order of magnitude. After a short qualification period, the VIP has been opened for users in the end of February 2011. First experiments have demonstrated that the procedure of flipping ratios measurements on VIP is extremely simple and does not need special knowledge. Now the accent of the polarized neutron work is shifted essentially to the refinement of measured flipping ratios. Further improve of the instrument efficiency is foreseen in 2011 when the installation of a new focusing polarizing Heussler monochromator is envisaged.

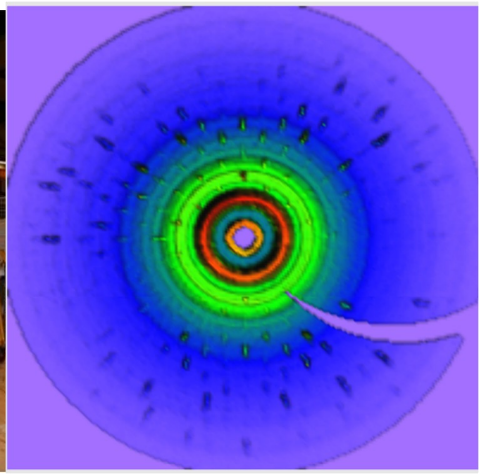

Fig.1, left : VIP in mounting hall.
Fig. 2, right : Typical intensity of one diffraction layer

ECOLES ET FORMATIONS EN NEUTRONIQUE

FAN du LLB

Comme tous les ans, le LLB à accueilli une vingtaine de stagiaires doctorants, post-doctorants et chercheurs confirmés pour 4 jours de cours et Travaux Pratiques. Pour cette session, les étudiants ont pu s'initier à 2 techniques de diffusion complémentaires (à choisir parmi SANS, Diffraction sur monocristal ou poudre, Réflectométrie, Diffusion inélastique ou Quasi-élastique.) mais aussi aux joies d'une neige abondante sur le plateau de Saclay...
La prochaine session des FAN du LLB aura lieu du 5 au 8 Décembre 2011.

Hercules 2011 (20-27 Mars 2011)

Du 20 au 27 mars, Orphée-LLB a accueilli une vingtaine d'étudiants d'Hercules, l'école doctorale européenne pour les utilisateurs des grands instruments (synchrotron et sources de neutrons) dans le cadre de sa semaine de travaux pratiques en région parisienne. Après des formations générales et la visite du réacteur, ils ont pu passer 3 jours sur les instruments, en alternant les techniques et thématiques.
A bientôt sur nos spectromètres pour de vraies manips ?
http://hercules.grenoble.cnrs.fr/

JDN 19 (Batz-sur-Mer)

La 19ème édition des JDN aura lieu du 6 au 10 Juin 2011 à Batz-sur-mer (Loire-Atlantique). Depuis bientôt vingt ans, les Journées de la Diffusion Neutronique (JDN) sont l'occasion d'une rencontre annuelle entre utilisateurs et professionnels français de la neutronique. Les JDN se sont traditionnellement articulées autour d'une Ecole thématique et d'un colloque, les rencontres Rossat-Mignod. Exceptionnellement, la 19ème édition de ces JDN sera l'occasion d'un changement de format: pas d'Ecole thématique, mais des rencontres Rossat-Mignod plus larges dont l'objectif sera d'exposer à la fois l'état de l'art en matière de diffusion des neutrons en France et d'aborder les perspectives scientifiques et technologiques dans lesquelles la diffusion des neutrons aura un rôle important à jouer. Chacune des sessions sera introduite par un exposé général, situant les problématiques et enjeux, suivi par des exposés proposés par les utilisateurs (chercheurs et étudiants) et experts de la diffusion des neutrons.

Liste des sessions : *Matériaux Fonctionnels, Energie, Matière molle, Nouveaux états électroniques de la matière, Biologie et Santé, Environnement-climatologie, Neutronique de demain, Très Grands Instruments de Neutronique (aujourd'hui et demain), Remise du prix de Thèse SFN.*

Site internet :
http://www.sfn.asso.fr/JDN/JDN19/index.html
Dates limites :
7/04/2011 : Soumission des résumés (contribution par affiche)
1/05/2011 : Inscriptions sur JDN19

Quelques parutions récentes

« Adsorption, structure and dynamics of benzene in ordered and disordered porous carbons. », Coasne B., Alba-Simionesco C., Audonnet F., Dosseh G. and Gubbins K. E. Physical Chemistry Chemical Physics, vol. 13(9), pp. 3748-3757, (2011)

« Two-dimensional electron gas with universal subbands at the surface of SrTiO3. », Santander-Syro A. F., Copie O., Kondo T., Fortuna F., Pailhes S., Weht R., Qiu X. G., Bertran F., Nicolaou A., Taleb-Ibrahimi A., Le Fevre P., Herranz G., Bibes M., Reyren N., Apertet Y., Lecoeur P., Barthelemy A. and Rozenberg M. J. Nature, vol. 469(7329), pp. 189-+, (2011)

« Structural changes between soda-lime silicate glass and melt. » Cormier L., Calas G. and Beuneu B. Journal of Non-Crystalline Solids, vol. 357(3), pp. 926-931, (2011)

« Magnetization distribution in the tetragonal Ba(Fe1-xCox)(2)As-2, x=0.066 probed by polarized neutron diffraction. » Prokes K., Gukasov A., Argyriou D. N., Bud'ko S. L., Canfield P. C., Kreyssig A. and Goldman A. I.Epl, vol. 93(3), pp., (2011)

« Polymer-Grafted-Nanoparticles Nanocomposites: Dispersion, Grafted Chain Conformation, and Rheological Behavior. » Chevigny C., Dalmas F., Di Cola E., Gigmes D., Bertin D., Boue F. and Jestin J. Macromolecules, vol. 44(1), pp. 122-133, (2011)

Pour vous aider dans vos projets d'expériences de diffusion neutronique, n'hésitez pas à contacter les chercheurs du LLB.
http://www-llb.cea.fr/

THESIS DEFENDED IN 2008-2011

LAGRÉNÉ Karine – 21 October 2008
« Dynamique des polymères électrolytes sous confinement quasi-unidirectionnel »
Directeur de thèse : M. Daoud/J.-M. Zanotti (Biologie et Systèmes désordonnés)
Ingénieur, R&D chez COVENTYA, Clichy

CALLIGARI Paolo – 18 December 2008
« Adaptation des protéines à l'environnement des fonds marins chauds : le cas du Facteur d'Initiation 6 étudié par simulation moléculaire et diffusion de neutrons »
Post-doc au Département de chimie, ENS Paris

TENCÉ Sophie – 30 September 2009
« Propriétés et structures magnétiques d'hydrures et de composés magnétocaloriques à base de terres rares »
Directeur de thèse : G. André
Post-doc au Max-Planck Institute de Dresde, Allemagne

CHEVIGNY Chloé – 12 October 2009
«Nanocomposites polymères/particules greffées : de la synthèse en solution colloïdale à l'étude des propriétés macroscopiques»
Directeur de thèse : F. Boué (Matière Molle)
Post-doc à Technische Universität Berlin, Allemagne

JOUAULT Nicolas – 3 November 2009
« Na/nocomposites Silice/Polymère : Structure des charges, Renforcement mécanique, Conformation des chaînes et Evolution sous déformation »
Directeur de thèse : F. Boué (Matière Molle)
Post-doc à Paris 7

MAURER Thomas – 10 November 2009
« Magnetism of anisotropic nano-objects: Magnetic and neutron studies of Co_1-x Ni_x nanowires »
Directeur de thèse : G. Chaboussant (Matériaux et Interfaces)
Post-doc au Max-Planck Institute de Stuttgart, Allemagne

LE CŒUR Clémence – 8 March 2010
« Influence de l'encombrement cytoplasmique sur la stabilité et la diffusion des protéines »
Directeur de thèse : J. Teixeira (Biologie et Systèmes désordonnés)
Post-doc au Laboratoire de Physique des Solides à Orsay, Paris XI et à partir de Mai 2011 Post-Doc au DIPC de San Sebastian, Espagne

***FABREGES Xavier** – 05 October 2010*
« Etude des propriétés magnétiques et du couplage spin/réseau dans les composés multiferroiques $RMnO_3$ hexagonaux »
Post-doc au Laboratoire des Champs Pulsés de Toulouse

CHAHINE Gilbert – 15 novembre 2010
« Propriétés remarquables et dynamique ultra-lente de cristaux-liquides nanoconfinés. »
Directeur de thèse: R. Lefort/ J.M. Zanotti (Biologie et Systèmes désordonnés)
Post-doc au MIT Boston, USA

GAL François – 29 novembre 2010
« Ingénierie macromoléculaire appliquée à l'étude de nano-objets à base de nanoparticules inorganiques greffées de polymères »
Directeur de thèse : C. Reynaud/G. Carrot (Matière Molle)
A la recherche d'un poste dans l'industrie à Bordeaux

BALEDENT Victor – 02 décembre 2010
« Paramètre d'ordre caché dans la phase de pseudo-gap des supraconducteurs à haute température critique »
Directeur de thèse : Ph. Bourges (Dynamique 3-axes)
Post-doc au Synchrotron Soleil-Gif sur Yvette

DE ALMEIDA-DIDRY Sonia – 14 December 2010
« Synthèse de la phase sous-dopée du système supraconducteur à haute température critique $Bi_2Sr_2CaCu_2O_{8+\delta}$ et étude par diffusion des neutrons »
En recherche d'emplois en R&D

FAMEAU Anne-Laure – 20 Avril 2011
« Assemblages d'acides gras : du volume aux interfaces »
Contrat INRA/CEA jusqu'à fin Octobre 2011

HDR DEFENDED IN 2008-2011

HDR = Habilitation à Diriger des Recherches

CHABOUSSANT Grégory – 16 January 2009
« Contribution de la diffusion des neutrons à l'étude des aimants moléculaires »

GOTA-GOLDMANN Susana – 5 February 2008
« Croissance et propriétés physiques des couches nanométriques d'oxydes de fer et d'alumine »

LONGEVILLE Stéphane - 1st December 2009
« Influence de l'environnement cytoplasmique sur la diffusion et la stabilité des protéines »

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« Neutron scattering on magnetic nanostructures »

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« Excitations magnétiques dans les ruthénates et les cuprates supraconducteurs. Etudes par diffusion de neutrons »

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« Neutrons et Dynamique de Spin »

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« Composés multiferroïques à topologie triangulaire »

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Prix de l'Académie des Sciences

Scientific Awards

The 21rst of October 2008, at the "Institut de France", Jean Salençon, Vice-President of the National Academy of Sciences, handed over the "Grand Prix Michel Gouilloud Schlumberger" to **Jean-Marc Zanotti**. This prize awards outstanding research from a young (<40 years-old) researcher in the domains of Earth Sciences (Geology or Geophysics) applied to Oil Industry. The award was granted for Jean-Marc Zanotti's works on the **dynamics of confined/interfacial water.**

Prix de Thèse

The 2008 SFN thesis prize was awarded to **Delphine Lebeugle** for her work on the "**Coupling between ferroelectric polarisation and magnetic structure in BiFeO3 single crystals**" (SPEC, CEA-Saclay). The prize was officially delivered on May 28 during the half day JDN Conference. The multi-disciplinary jury was chaired by Jean Pierre Hanssen, Liquid State theorist, currently at Cambridge University.

In 2009, the jury of the SFN Thesis Prize chaired by M. Leduc, President of the SFP, has distinguished **Karine Lagrené** for her thesis defended in October 2008 at the Université Paris Sud. This thesis, co-directed by M Daoud (SPEC) and J-M. Zanotti (LLB), was dedicated to the "**Dynamic study of Polymers under quasi-uniaxial confinement**".

The 2010 SFN thesis prize was awarded to **Chloé Chevigny** for her thesis defended in October 2010 at the Université Université Paris-Sud. This thesis, co-directed by F. Boué and J. Jestin (LLB) was untitled *"Nanocomposites polymères-particules greffées : de la synthèse en solution colloidale à l'étude des propriétés*

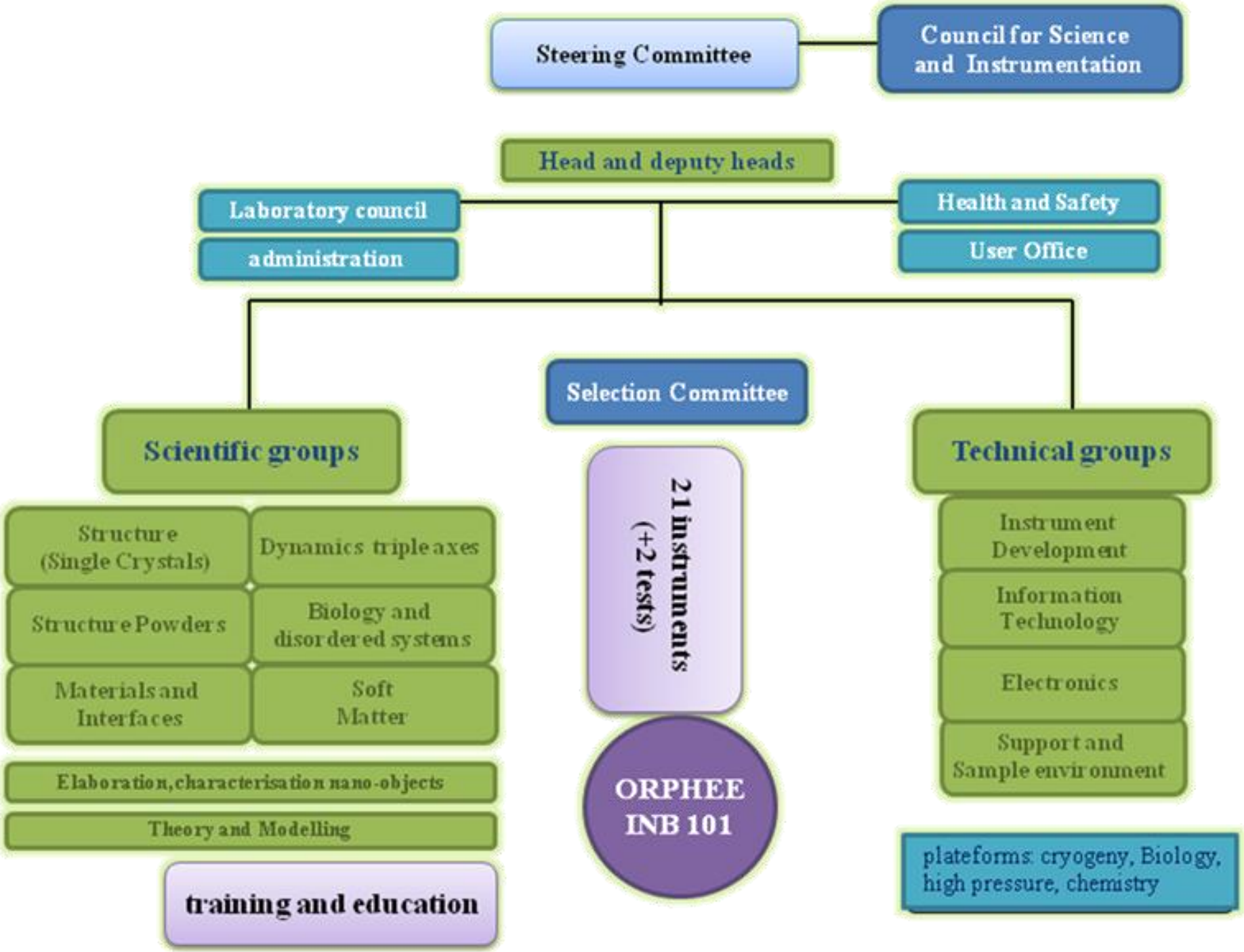
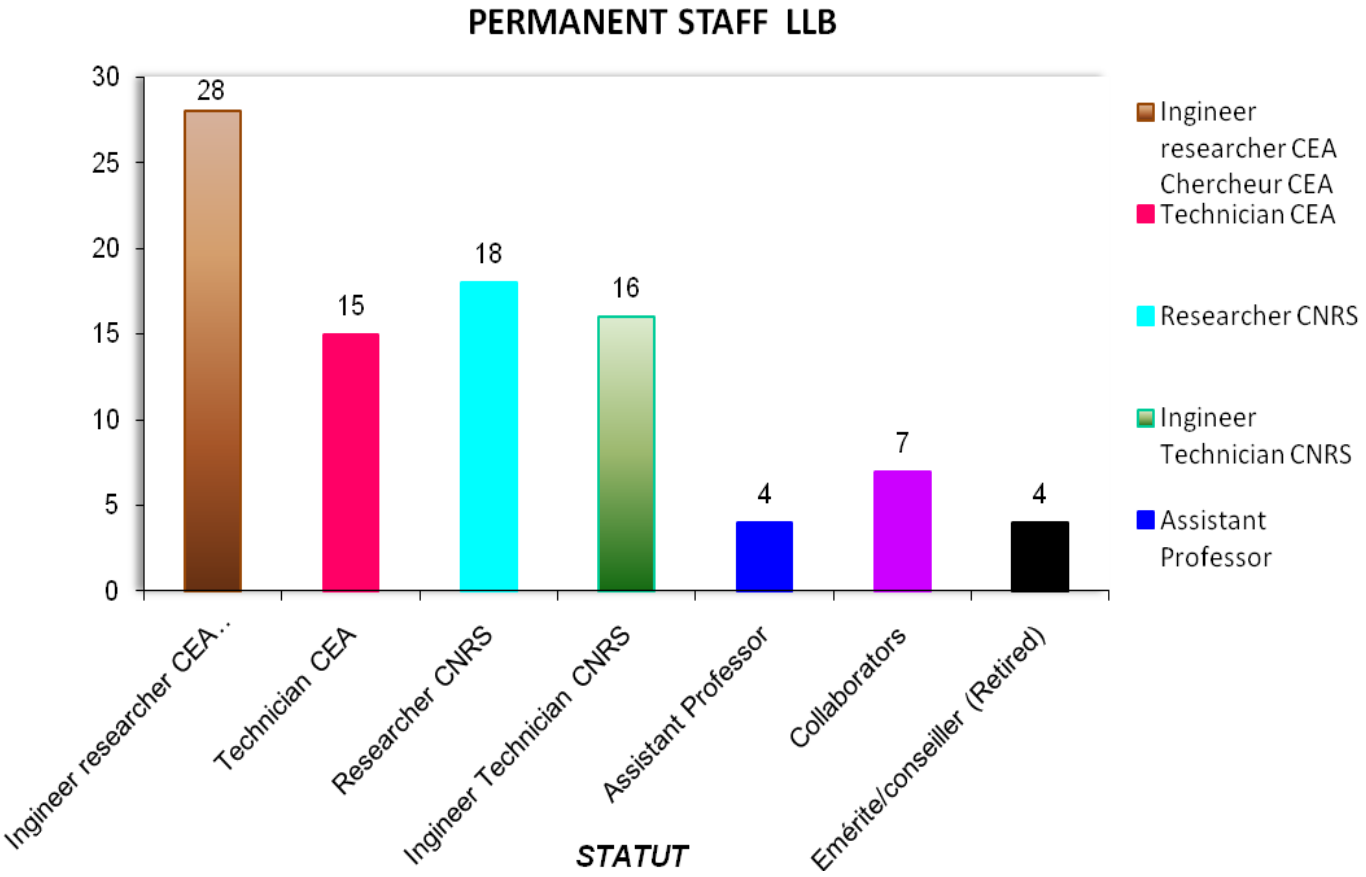
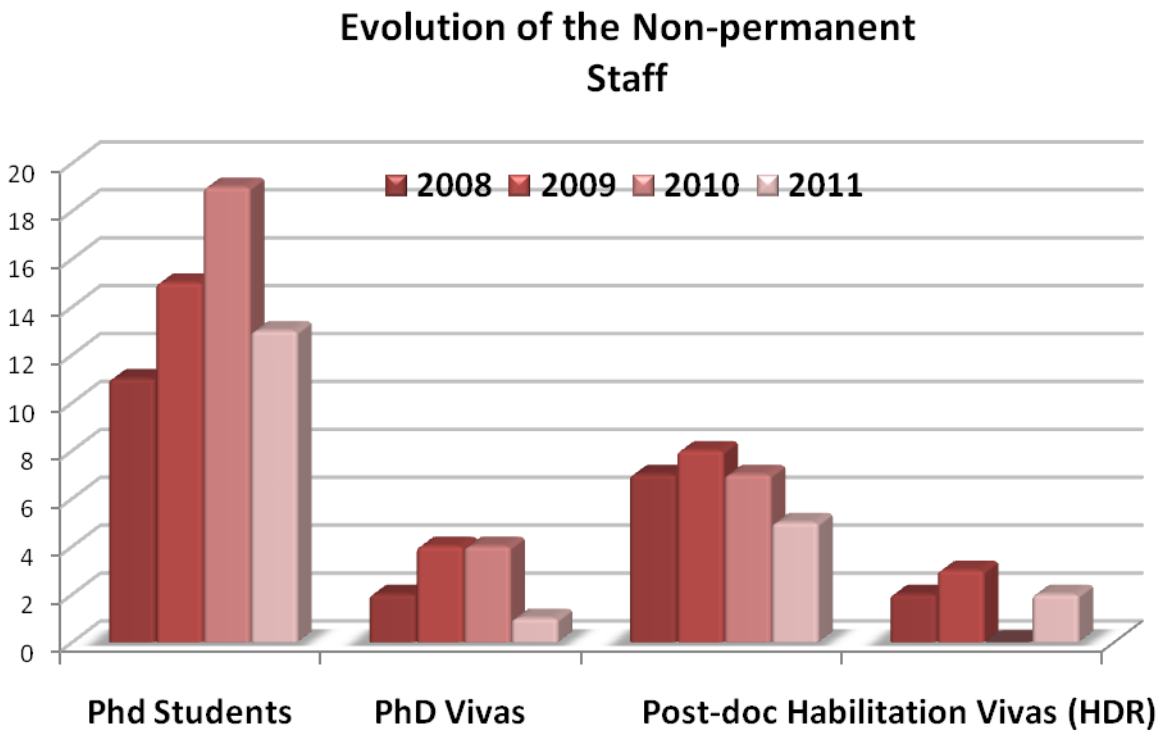
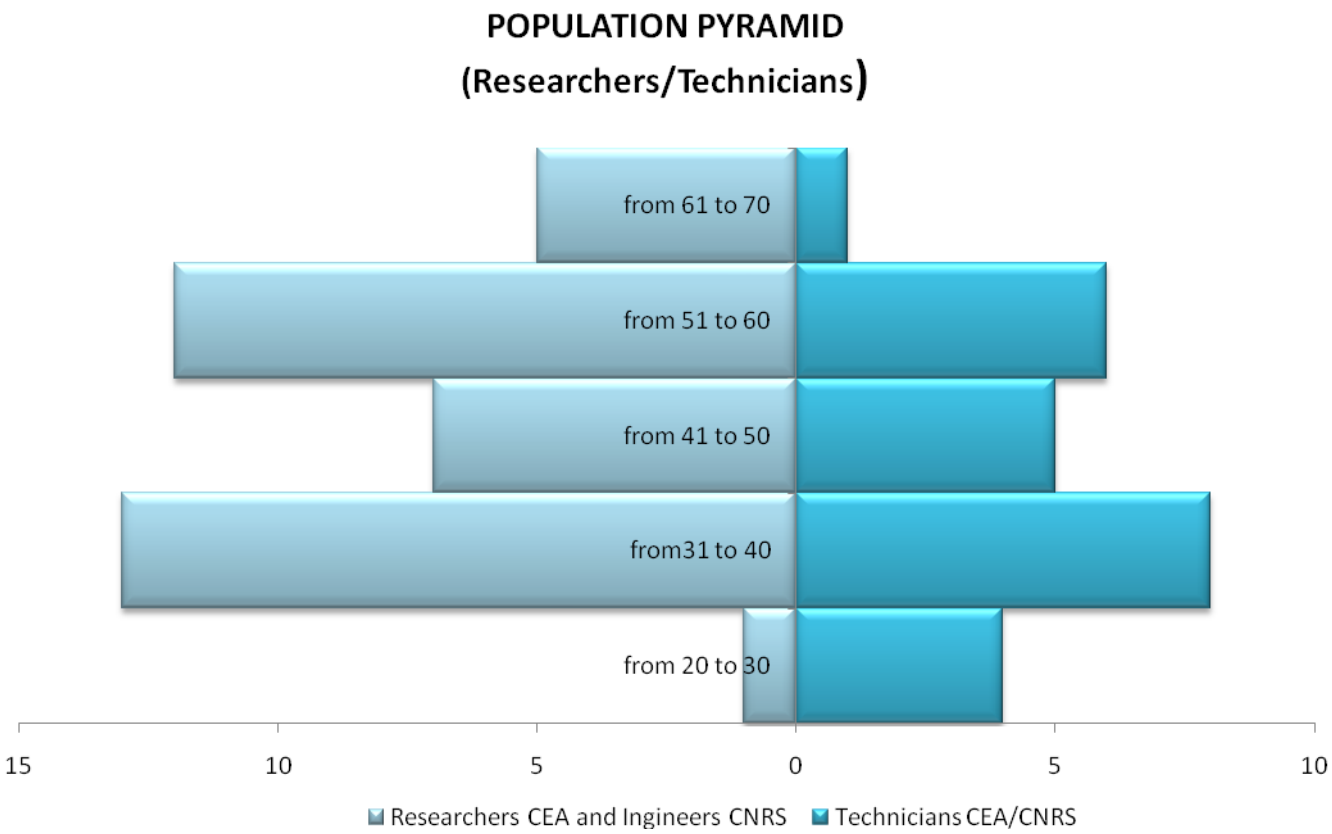
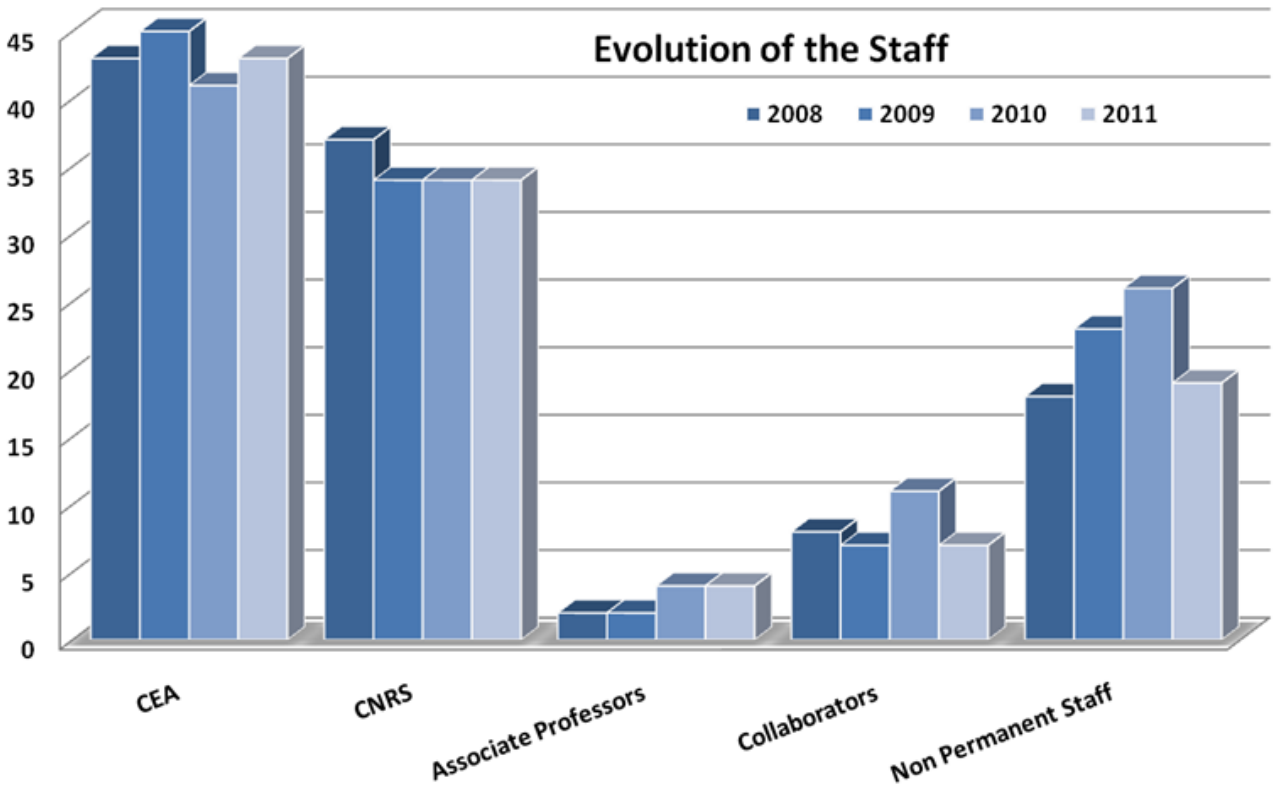


Figure 2 : Organization chart of the TGIR LLB/Orphée

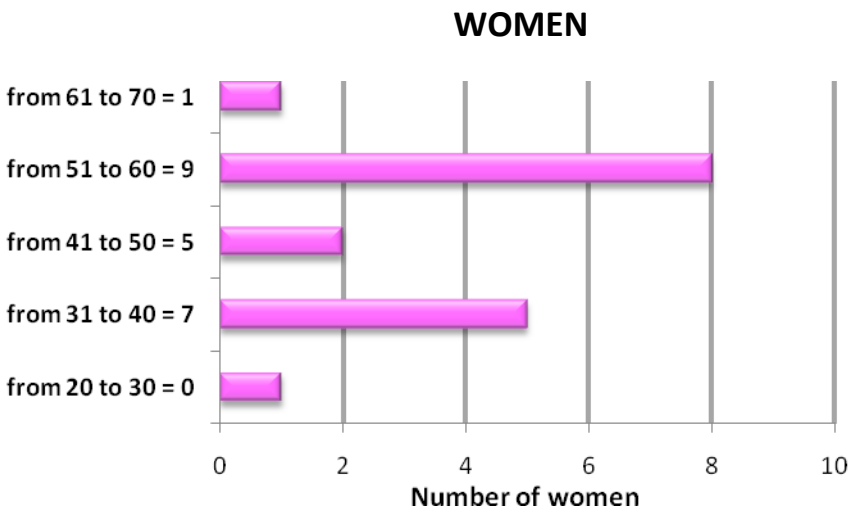

PERMANENT STAFF LLB
30
25
20
15
10
5
0
28
15
18
16
4
7
4
Ingineer researcher CEA..
Technician CEA
Researcher CNRS
Ingineer Technician CNRS
Assistant Professor
Collaborators
Emérite/conseiller (Retired)
STATUT
Ingineer researcher CEA Chercheur CEA
Technician CEA
Researcher CNRS
Ingineer Technician CNRS
Assistant Professor

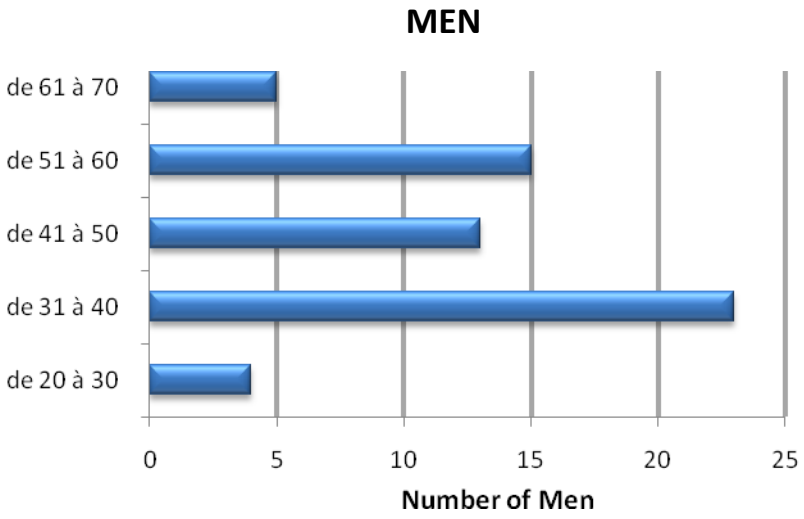

Evolution of the Non-permanent Staff
2008
2009
2010
2011
20
18
16
14
12
10
8
6
4
2
0
Phd Students
PhD Vivas
Post-doc Habilitation Vivas (HDR)

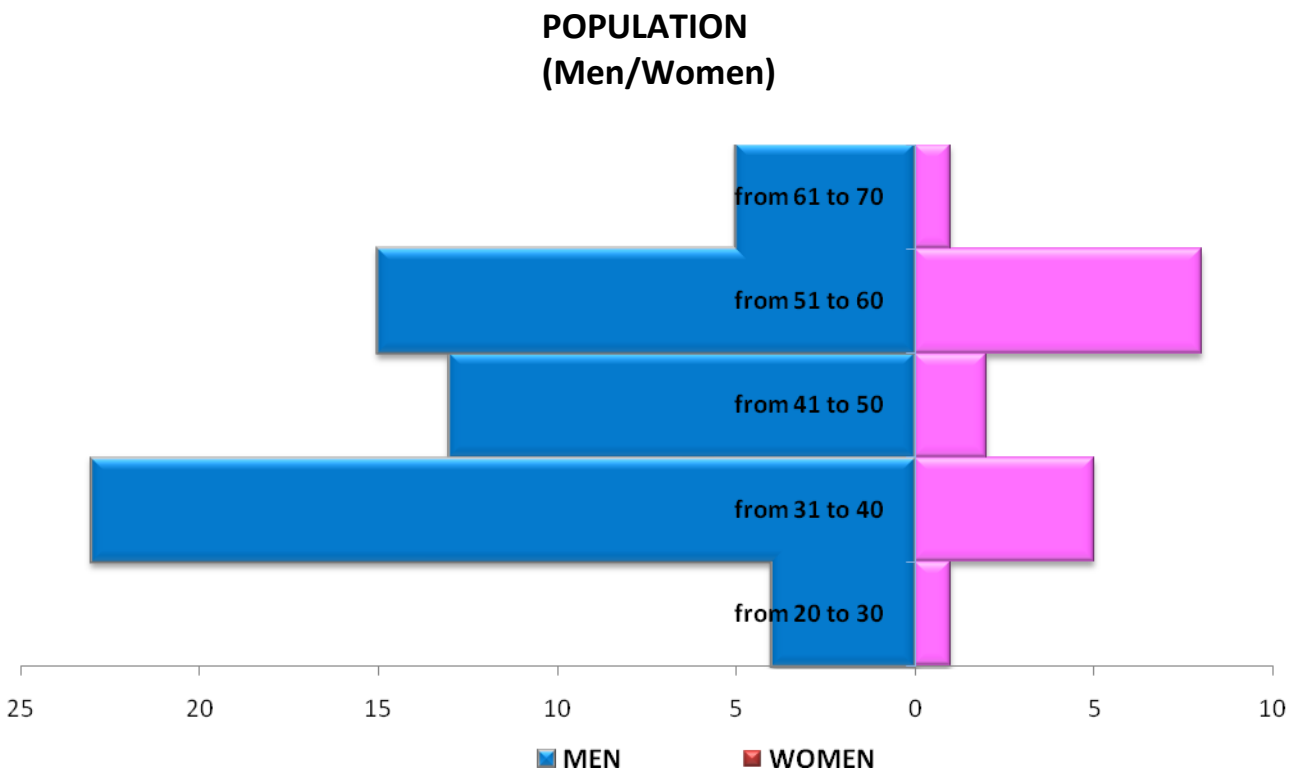

POPULATION PYRAMID
(Researchers/Technicians)
from 61 to 70
from 51 to 60
from 41 to 50
from31 to 40
from 20 to 30
15
10
5
0
5
10
Researchers CEA and Ingineers CNRS
Technicians CEA/CNRS


Evolution of the Staff
2008
2009
2010
2011
45
40
35
30
25
20
15
10
5
0
CEA
CNRS
Associate Professors
Collaborators
Non Permanent Staff

Evolution Men/Women







CONTRACTS AND FORMALISED INTERNATIONAL COLLABORATIONS

NMI3 **The following table resumes the activity of the LLB concerning the NMI3 TAA and JRA in the framework of the FP6 and FP7 programs** (* including users travel and subsistence expenses)

Program type	Project title	LLB Workpakage	LLB parteners	Funding	Period
FP6-I3	NMI3* ACCESS	Transnational ACCESS	F. BOUREE et S. GOTA-GOLDMANN	1755 K€*	01/01/2004 31/06/2008
FP6-I3	NMI3 Joint Research Activities	MILAND Millimetre Resolution Large Area Neutron Detector	C. FERMON and F. OTT	180 K€	01/06/2004 31/06/2008
FP6-I3	NMI3 Joint Research Activities	PNT Polarised Neutron Techniques	A. GOUKASSOV and S. LONGEVILLE	76 K€	01/06/2004 31/06/2008
FP6-I3	NMI3 Joint Research Activities	NO-PST Neutron Optics and Phase Space Transformers	F. OTT	120 k€	01/06/2004 31/06/2008
FP7-I3	NMI3* ACCESS	Transnational ACCESS	S. GOTA-GOLDMANN	722 K€*	02/02/2009 01/02/2011
FP7-I3	NMI3 Joint Research Activities	Sample Environment	J. M. MIGNOT and B. ANNOGHOFER	101 K€	02/02/2009 01/02/2013

FP7-I3	NMI3 Joint Research Activities	Polarised Neutrons	A. GOUKASSOV and S. LONGEVILLE	100 K€	02/02/2009 01/02/2013
FP7-I3	NMI3 Joint Research Activities	Neutron Optics	F. OTT (JRA Coordinator) and S. DESERT	104 k€	02/02/2009 01/02/2013
FP7-I3	Education and Training NMI3	Summer School of neutron scattering FAN	A.Menelle	2k€	11/2010
FP7-INFRASTRUCTURES	ESS-PP	The European Spallation Neutron Source (ESS) Preparatory Phase	S. GOTA-GOLDMANN	35 K€	01/04/2008 31/03/2010

Network of excellence

FP7-EUROPEAN NETWORK OF EXCELLENCE	MAGMANet (Molecular Approach to Nanomagnets and Multifunctional Materials)	structural and magnetic characterization of ground and excited spin states in molecular magnetic compounds by neutron diffraction	B. GILLON	5 K€	01/01/2009 31/10/2009

Call identifier: FP7-INFRASTRUCTURES-2011-1 25 November 2010,
Integrating Activities /Materials and Analytical Facilities/ INFRA-2011-1.1.17. Infrastructures for Neutron Scattering and Muon Spectroscopy.

Program type	*Project title*	*LLB Workpakage 2011 call 7*	*LLB parteners*	*Funding*	*Period*
FP7-I3	*NMI3* ACCESS*	*Transnational ACCESS*	*LLB head*	*1129,060.k €*	*2012-2016*
FP7-I3	*NMI3 Joint Research Activities*	*Advanced Neutron Tools for Soft and Bio-Materials*	*A. Brûlet (head)*	*170.250 K€*	*2012-2016*
FP7-I3	*NMI3 Joint Research Activities*	*Imaging*	*F.OTT*	*195.750 K€*	*2012-2016*
FP7-I3	*NMI3 Joint Research Activities*	*Detectors*	*A.Menelle*	*53,250 k€*	*2012-2016*
FP7-I3	*Education and Training NMI3*	*Summer School of neutron scattering FAN*	*A.Menelle*		*2012-2016*

CRG –bilateral collaboration agreement

Program type	Project title	LLB Workpakage	LLB parteners	Funding	Period
BILATERAL COLLABORAITON AGREEMENT	Collaborative Research Group (CRG) for the 3-axis Instrument 1T	CRG between the Forschungszentrum Karlsruhe and the LLB.The FZK have access to 1/3 of the beamtime; for the remaining 2/3 the instrument is made available for the LLB's scientific user programme	D. LAMAGO and Y. SIDIS	150 K€ + 1 scientist + 1 technician	01/08/2006 31/07/2008
BILATERAL CA	CRG for the 3-axis Instrument 1T	amendment for two more years of the FZK-LLB GRG at the same conditions	D. LAMAGO and Y. SIDIS	150 K€ + 1 scientist + 1 technician	01/08/2008 31/07/2010
BILATERAL CA	CRG for the 3-axis Instrument 1T	amendment for two more years of the FZK-LLB GRG at the same conditions	D. LAMAGO and Y. SIDIS	168 K€ + 1 scientist + 1 technician	01/08/2010 31/07/2012

ANR INTERNATIONAL PROGRAMS

Program type	Projetc acronym	PROJECT Title	LLB parteners	Funding	Period
ANR-NSF BLANC	StruDynaL	**Structure et Dynamique de liquides à liaison hydrogène**	**C. ALBA-SIMIONESCO**	**296 K€**	**2011-2013**
ANR BLANC Programme Inernational	TEMPLDISCO	**Template confinment effects on discotic liquid-crystals**	**J. M. ZANOTTI and C. ALBA SIMIONESCO**	**27 K€**	**2010-2013**

CEA and CNRS international PROGRAMS

Program type	Project tittle	Project leader	Period	Funding
Partenariat Hubert-Curien UTIQUE France-Tunisie	Structure of aqueous solutions confined in porous materials	M.-C. BELLISSENT	2008-2010	14 K€
CNRS-MTA Hungary Cooperation	Structure of molecular liquids combining diffraction techniques and MD simulations	M.-C. BELLISSENT	2008-2009	7 K€
CNRS-USA Programme	Dynamics of interfacial water	M.-C. BELLISSENT	2008-2010	9 K€

CONTRACTS AND INDUSTRIAL COLLABORATIONS

INDUSTRIAL ANR PROGRAMS

Program type	Projetc acronym	PROJECT Title	LLB parteners	Funding	Period
ANR Matériaux et procédés	AMARAGE	Aciers MARtensitiques Alliés de nouvelle Genération	M-H MATHON	133 k€	2006-2008
ANR Matériaux et procédés	PROMETFOR	Réalisation d'outillage rapide en forge par projection métallique	M-H MATHON	131 K€	2007-2010
ANR Matériaux et procédés	AXTREM	Aciers ferritiques/martensitiques renforcés par nano-particules pour application à haute température en conditions extrêmes.	M-H MATHON	110 K€	2008-2010
All	GENESYS	Membranes et composites à base de nanotubes de Carbone	D. LAIREZ	128 K€	2009-2011

INDUSTRIAL CONTRACTS

Industrial Company	Project tittle	Project leader	Period	Funding
INRA, Program "Green Chemistry"	1/2 PhD allocation (CFR Contract)	F. BOUE and F. COUSIN	2008-2010	60 K€
MICHELIN Company	PhD allocation (CIFRE contract) and working expenses	F. BOUE and J. JESTIN	2010-2013	160 K€
ANR Project "Géocarbone"	purchase of beamtime for SANS measures	J JESTIN	2007-2008	6 K€
AZ Systèmes company	Monochromator blades orientation	Ph. BOUTROUILLE	2008	13,5 K€
General Electric (GE Energy)	Determination of residual stresses in a part of crankshafts samples	V. KLOSEK	2009	30 K€
SwissNeutronics	reflectivity measurements on guide coatings	A. MENELLE	2009	2,5 K€
MAATEL company	Sale of patent n°0502379 "Détecteur 2-D pour Rayonnement Neutrons."	L. NOIREZ and P. BARONI	2009	40 k€
Reading university, UK	Couette cell delivery	L. NOIREZ and P. BARONI	2009	8,5 K€
IROC company	Electronic components irradiation	A. MENELLE	2009-2010	9,5 K€
TRAD company	Electronic components irradiation	A. MENELLE	2010	2,5 K€
ANR Projet NANOHPCUIVRE	purchase of beamtime for SANS measurements	M H MATHON	2010	10 K€

NATIONAL COLLABORATIONS AND TRANSVERSE PROGRAMS

NATIONAL COLLABORATIONS

Program type	Project title	Project leader	Period	Funding
Research projects funded by the "Conseil Régional Aquitaine"	The use of neutron scattering by the "région Aquitaine"	LLB head	2009-2011	230 K€

CEA and CNRS Transverse Programs

Program type	Project tittle	Project leader	Period	Funding
CEA/DAM and LLB	Neutron irradiations	A. MENELLE	2008	13,5 K€
CEA/DEN and LLB	SANS measurements on steel samples	M H MATHON	2008-2010	90 K€
CNRS Transverse Program "Interface Physique chimie biologie"	DNA structure characterization	V. ARLUISON	2010	17 K€
CNRS	Lames d'Heusler	Y.SIDIS	2010	25k€

Agence Nationale pour la Recherche (ANR) Programs

Program type	Projetc acronym	PROJECT Title	LLB parteners	Funding	Period
ANR BLANC	OXYFONDA	Etats Fondamentaux Originaux dans les Oxydes: de Nouveaux Matériaux pour une Nouvelle Physique	G. COLLIN	50 K€	2006-2008
ANR BLANC	BIONANOCOMP	Nanomatériaux Biocompatibles	J. M. ZANOTTI	7.6 K€	2006-2008
ANR BLANC	CEDA	Convergence of electron spin, charge and momentum densities analysis	B. GILLON,	76 K€	2008-2010
ANR BLANC	MagDo	Magnétisme induit par des impuretés non magnétiques (Magnétisme d0)	S. PETIT et S. PAILHES	24 k€	2008-2010
ANR BLANC	DynHet	Dynamical Heterogeneity	C. ALBA-SIMIONESCO	97 K€	2008-2010
ANR BLANC	NewTOM	Oxydes de métaux de transition à valence mixte	F . BOUREE, F. DAMAY et S. PETIT	122 K€	2009-2011
ANR BLANC	TRANSFOLDPROT	Translocation, interactions et repliement de protéines en sortie de différents pores protéiques à l'échelle de la molécule unique	D. LAIREZ et S. COMBET	84 K€	2009-2011
ANR-NSF BLANC	StruDynaL	Structure et Dynamique de liquides à liaison hydrogène	C. ALBA-SIMIONESCO	296 K€	2010-2012

ANR BLANC International	TEMPLDISCO	Template confinment effects on discotic liquid-crystals	J. M. ZANOTTI	27 K€	2010-2012
ANR JCJC	MULTICLICK	CLICK chemistry	G. CARROT et F. COUSIN	60 K €	2008-2010
ANR JCJC	MODYC	Modelisation de la dynamique des colloides charges d'intérêt industriel ou environnemental	N. MALIKOVA	15 K€	2009-2011
ANR PNANO	LISSIL	Solid State Electrolites with ionic liquid properties for lithium batteries	J. M. ZANOTTI et D. LAIREZ	152 k€	2007-2010
ANR PNANO	MAGAFIL	Elaboration d'aimants permanents haute température à base de nanofils organisés par une approche bottom-up	F. OTT et G. CHAOUSSANT	98 K€	2008-2010
ANR PNANO	BIOSELF	Auto-assemblages de nanogels et nanocomposites bioinspirés	F. BOUE, L. T. LEE et F. COUSIN	145 K€	2009-2011
ANR Matériaux et procédés	AMARAGE	Aciers MARtensitiques Alliés de nouvelle Genération	M-H MATHON	133 k€	2006-2008
ANR Matériaux et procédés	PROMETFOR	Réalisation d'outillage rapide en forge par projection métallique	M-H MATHON	131 K€	2007-2010
ANR Matériaux et procédés	AXTREM	Aciers ferritiques/martensitiques renforcés par nano-particules pour application à haute température en conditions extrêmes.	M-H MATHON	110 K€	2008-2010

ANR PCV	BIOSTAB	Optimisation de la stabilité de matériaux biologiques pour de nouvelles stratégies thérapeutiques	M-C. BELLISSENT et S. COMBET	133 K€	2008-2011
AII	GENESYS	Membranes et composites à base de nanotubes de Carbone	D. LAIREZ	128 K€	2009-2011

Other calls and local funding

Program type	Projetc acronym	PROJECT Title	LLB parteners	Funding	Period
RTRA Triangle de la Physique	MICROPRESS	Etudes combinant le rayonnement synchrotron et les neutrons sous très hautes pressions	I. MIREBEAU et I. GONCHARENKO	60 K€	2007-2009
RTRA Triangle de la Physique	GLACEDESPIN	les glaces de spin : étude de monocristaux sous champ magnétique.	I. MIREBEAU et A. GOUKASOV	60 K€	2008-2009
RTRA Triangle de la Physique	OCTUCOMETE	électro-aimant OCTUpolaire pour l'étude du COuplage MagnETo-Electrique	A. BATAILLE	45 K€	2009-2011
RTRA Triangle de la Physique	FracHet	Plasticity, fracture and dynamical heterogeneities in glasses	C. ALBA SIMIONESCO	5 K€	2008-2010

RTRA Triangle de la Physique	RELAXAN	Cuves de Langmuir pour la diffusion et la reflectivité des rayons x et des neutrons	F. COUSIN	17 K€	2009-2011
RTRA Triangle de la Physique	PA20	Petits Angles 20 m	A. BRULET	250 K€	2009-2013
RTRA Triangle de la Physique	Conférence H2BR	International Conference "Horizons in hydrogen bond Research"	M. C. BELLISSENT-FUNEL	6 K€	2009
RTRA Triangle de la Physique	Conférence SUPRA2010	Réunion thématique sur la supraconductivité	Ph. BOURGES	4 K€	2010
RTRA Triangle de la Physique	MagCorPnic	Magnétisme et corrélations électroniques dans les pnictures supraconducteurs	Ph. BOURGES and Y. SIDIS	25 K€	1/4/2010 30/9/2011
RTRA Triangle de la Physique	IMAMINE	Post-doctotal fellowship (12 months)	F.Ott	60k€	2011-2012
RTRA Triangle de la Physique	MULTIPRES	financement d'un séjour de 3 mois d'Olga MAKAROVA	I. MIREBEAU	15k€	20/3-20/6 2011
RTRA Triangle de la Physique	BOREE	dévelopement de dispositifs cryogéniques pour les hautes pressions	I. MIREBEAU	10k€	2011
C Nano IdF	FilaSpin	Filtres de spin a base de couches d'oxydes	F. OTT	50 K€	2007-2009
C Nano IdF	PA20	Petis Angles 20 m	A. BRULET	300 K€	2010-2014
C'NANO IdF	MAGELAN	Couplage MAGnétoELectrique dans les fiLms et nANostructures multiferroïques	A. BATAILLE	70 K€	2008-2010

ASTRE Département de l'Essonne		**Combinaison multi-techniques originale pour la caractérisation de matériaux innovants**	**C. ALBA-SIMIONESCO**	115 K€	**2008-2010**
Soutien aux Manifestations Scientifiques Région Ile-de-France	**Conférence H2BR**	**International Conference "Horizons in hydrogen bond Research"**	**M. C. BELLISSENT-FUNEL**	40 K€	**2009**

Séminaires LLB

2008

Date	Titre	Orateur	Laboratoire
08/01/2008	Etude de la coexistence du magnétisme et de la ferroélectricité dans le composé multiferroïque BiFeO3.	Delphine Lebeugle	DRECAM/SPEC
17/01/2008	Ruthénates: de la supraconductivité triplet au méta-magnétisme	Yvan Sidis	Laboratoire Léon Brillouin
22/01/2008	New applications of very-high resolution inelastic X-ray scattering	Alexey Bosak	ESRF
29/01/2008	Etude des propriétés magnétiques de BaCo2(AsO4)2 par neutrons polarisés et analyse de polarisation sphérique.	Louis-Pierre Regnault	CENG - ILL
12/02/2008	Dynamique de spin dans les systèmes frustrés	Julien Robert	Laboratoire Léon Brillouin
15/02/2008	Réactivité sous rayonnement des milieux nanoporeux	Sophie Le Caër	DSM/IRAMIS/SCM
19/02/2008	Function from Frustration in modern multiferroics	Dimitri N. Argyriou	HMI
18/03/2008	Quasi-2D quantum magnets comprised of strong hydrogen bonds and pyrazine ligands.	Jamie Manson	Eastern Washington University
01/04/2008	Etude des propriétés thermodynamiques de systèmes ferromagnétiques itinérants.	William Knafo	LNCMP toulouse
08/04/2008	La magnétite Fe3O4, sous pression, par diffraction de neutrons.	Stefan Klotz	Université Paris VI
18/04/2008	Polymères en solution: des liquides de "blobs" ?	Jean-Pierre Hansen	Université de Cambridge (GB)
10/06/2008	Spin crossover solids studied by X-ray diffraction.	Dmitry Chernyshov	Swiss-Norwegian Beam Lines at the ESRF, Grenoble
20/06/2008	Block copolymer vesicles as a model of synthetic virus.	S. Lecommandoux	LCPO, Université de Bordeaux 1
10/07/2008	Applications of Novel Polymeric Systems in Nanotechnology	Michael K.C. Tam	Department of Chemical Engineering, University of Waterloo, Ontario, Canada
26/09/2008	Exemples of polarized neutrons investigations	Sergey Klimko	ILL
03/10/2008	Dynamical scaling - a few open questions	Dr. Subhasish Mazumder	BARC, Mumbai (India)
10/10/2008	Nanoparticules chargées mises en présence de molécules de charge de même signe: interactions, structure locale et dynamique.	François Muller	INSP, UPMC-CNRS UMR 7588, 140 rue de Lourmel 75015 Paris.
30/10/2008	Nesting and structural properties under pressure in the Na0.5CoO2 cobaltites	Gaston Garbarino	European Synchrotron Radiation Facility, Grenoble, France
25/11/2008	Electron magnetism of antiferromagnetic conductors : giant Zeeman electric-dipole resonance and more.	Revaz Ramazashvili	Université Paris-Sud, Orsay
12/12/2008	Nanoparticles : from functionalization to multimodal synthesis	J. Fresnais	Laboratoire MSC, Paris 7

2009

21/01/2009	Effets cinétiques avec des macromolécules soumises à des variations de température, pression ou concentration en dénaturants .	Philippe Dumas	Institut de Biologie Moléculaire et Cellulaire (IBMC), Strasbourg

03/02/2009	Spectroscopie Brillouin des ondes de spin dans un réseau de lignes de permalloy de tailles submicroniques.	Fatih Zighem	LLB
10/02/2009	Excitons dans un fil quantique organique unique	Laurent Legrand	Institut des NanoSciences de Paris (INSP) UMR 75 88 CNRS, Universités Paris 6 et 7
13/02/2009	Molecular self-assembly on flat surfaces and inside nano-pores.	Alexandros G. Koutsioubas	Department of Physics, University of Patras, Greece
19/02/2009	D33 - A third Small-Angle Neutron Scattering instrument at ILL.	Charles Dewhurst	ILL
24/02/2009	Bismuth au-delà de la limite quantique	Benoît Fauqué	Laboratoire Photon et Matière (CNRS-UPR5), ESPCI
03/03/2009	Dynamique du décollement d'une vésicule près du substrat et transport transmembranaire biologique.	Sunita Chatkaew	IRPHE et ECM, Marseille
03/03/2009	Ordres multipolaires dans les hexaborures de terres rares.	Julien Robert	LLB
10/03/2009	Fluctuations de spin dans la phase d'ordre magnétique des systèmes frustrés de type pyrochlore : évidences et controverse.	Pierre Bonville	IRAMIS/SPEC, Groupe « Oxydes conducteurs »
24/03/2009	Spin fluctuations and neutron scattering in YbRh2Si2	Christopher Stock	ISIS Facility, Rutherford Appleton Labs
28/04/2009	Etude par diffusion de neutron du supraconducteur organique (TMTTF)2X (X=PF6...)	Pascale Foury-Leylekian	Laboratoire de Physique des Solides, Université Paris XI, Orsay
05/05/2009	Multiferroïques pour la spintronique	Manuel Bibes	Unité Mixte de Physique CNRS/Thales
12/05/2009	Présentation de la candidature de Bilbao pour la construction de l'ESS (European Spallation Source).	???	
09/06/2009	Des matériaux relaxeurs aux composés morphotropiques.	Jean-Michel Kiat	École Centrale
23/06/2009	Nano-objets fonctionnels de réseaux de coordination : synthèse, organisation et propriétés	Talal Mallah	UMR 8182, Université Paris-Sud
30/06/2009	Renversement d'aimantation et décalage d'échange dans les superréseaux couplés par échange DyFe2/YFe2: une étude par réflectométrie de neutrons et dichroïsme circulaire magnétique.	Catherine Dufour	LPM Nancy
06/10/2009	Etude de systèmes à Onde de Densité de Charge et de Spin par diffraction cohérente des rayons X	Vincent Jacques	Laboratoire de Physique des Solides, UMR8502, Bât 510, Université Paris-Sud XI
20/10/2009	Calculs atomiques et moléculaires en matière condensée : synergie théorie/expérience	Antonino Marco Saitta	Institut de minéralogie et de physique des milieux condensés, Université Pierre et Marie Curie
10/11/2009	Superconductivity in Ferromagnets	Andrew D. Huxley	Scottish Universities Physics Alliance, University of Edinburgh

2010

05/01/2010	Structure magnétique et dynamique de spins dans la delafossite multiferroïque CuCrO2	Françoise Damay	LLB
12/01/2010	Tuning magnetic quantum phase transitions	Hilbert v. Löhneysen	Karlsruher Institut für Technologie (KIT)
26/01/2010	Observation d'une nouvelle anomalie de phonons dans le chrome par diffusion inélastique de rayons X	Daniel Lamago	Karlsruher Institut für Technologie (KIT) et Laboratoire Léon Brillouin
09/02/2010	Susceptibilité locale et aimantation du site atomique : d'une idée à la pratique. Partie 1	Arsen Goukassov	LLB
16/02/2010	Susceptibilité locale et aimantation du site atomique : d'une idée à la pratique. Partie 2	Isabelle Mirebeau	LLB
10/03/2010	The coupling of protein dynamics to function, the case of myoglobin	Wolfgang Doster	Technische Universität München, Physik department
12/03/2010	Structure and dynamics of poly ethylene glycol coated Au nanoparticles	Marco Maccarini	Institut Laue-Langevin,Grenoble, France
30/03/2010	Rôle des fluctuations de spin et des « Cu-O bond stretching phononspour l'appariement supraconducteur et les anomalies électroniques dans les cuprates à haute température critique.	F. Onufrieva	LLB
13/04/2010	Magnetic excitations in superconducting iron arsenides and cuprates: Analogies and differences	Vladimir Hinkov	MPI-FKF Stuttgart
16/04/2010	On how does the presence of hydrophobic groups influence the ion-specific effects in polyelectrolyte solutions	Vojko Vlachy	University of Ljubljana, Ljubljana, Slovenia
18/05/2010	Couplage par effet tunnel entre films antiferromagnétiques.	Alexandre Bataille	Laboratoire Léon Brillouin
28/05/2010	Phase behavior and surface excitations of polymer-nanoparticle mixtures in bulk and thin films	J. T. Cabral	Imperial College de Londre
01/06/2010	Advances and future perspectives in magnetic x-ray scattering at the ESRF	Luigi Paolasini	ESRF
03/06/2010	Beyond slip : using neutron diffraction and polycrystalline plasticity models to understand plastic deformation in anisotropic materials.	Donald W. Brown	Los Alamos
18/06/2010	Ultrafast dynamics following photoionization in water: Electrons and cationic holes	Pavel Jungwirth	Institute of Organic Chemistry and Biochemistry, Prague
22/06/2010	Anomalous Hall Effect in metallic ferromagnets.	Mathieu Taillefumier	Department of Physics, UIO, Oslo, Norway
23/11/2010	Des mesures neutroniques fournissent, pour les excitations d'un liquide de Fermi à 2D, un résultat inattendu	Henri Godfrin	Institut Néel, CNRS et Université J. Fourier, Grenoble
03/12/2010	To click or not to click ?	Eric Drockenmuller	Université Lyon I

2011

11/01/2011	Direct Access to the Spin Correlations within Zero Dimensional Spin Systems	Tatiana Guidi	ISIS facility-Rutherford Appleton Laboratory

28/01/2011	Capilarité, surchauffe, confinement de l'eau liquide dans les systèmes naturels macroscopiques	Laurent Mercury	Institut des sciences de la terre d'Orléans
01/03/2011	Étude locale des états électroniques anormaux dans les cobaltates et les pnictures de fer	Guillaume Lang	IFW Dresden - g.m.lang@ifw-dresden.de
04/03/2011	Nonlinear Dielectric Response and Enthalpy Relaxation in Supercooled Liquids	Ranko Richert	Department of Chemistry and Biochemistry, Arizona State University
08/03/2011	New perpendicular thin films for spintronics & magnetic recording	Kurt Huseyin	Trinity College Dublin
15/03/2011	Chiral magnetic order and dynamics in Ba3NbFe3Si2O14	Virginie Simonet	Institut Néel, Grenoble

Rapport du Comité d'Evaluation du Laboratoire Léon Brillouin (novembre 2006)

Le Comité d'évaluation du Laboratoire Léon Brillouin (UMR12 CEA-CNRS) s'est réuni à Saclay les 28 et 29 novembre 2006. La première journée a débuté par une présentation détaillée du Directeur, Philippe Mangin sur l'organisation du laboratoire, ses missions, son personnel, les budgets de fonctionnement et d'équipement alloués par le CNRS et le CEA ainsi que les financements complémentaires obtenus auprès de la Communauté Européenne, des Conseils Régionaux, de l'ANR, etc. Un bilan de l'activité de service et de l'accueil des utilisateurs, au cours des deux dernières années, a aussi été présenté ainsi que l'état d'avancement du programme de modernisation du parc instrumental, intitulé « CAP 2010 ».

Le comité a ensuite entendu sept remarquables présentations de faits marquants des deux années écoulées par deux responsables de groupes (F. Boué et J.M. Mignot), trois jeunes chercheurs (J. M. Zanotti, M.H. Mathon et I. Goncharenko) et deux doctorants (G. Gibrat et A. Apetrei). Elles ont été suivies, à chaque fois, d'une discussion alimentée par les nombreuses questions des membres du comité. Le lendemain matin, ces exposés ont été complétés par une présentation sous forme d'une trentaine d'affiches qui ont permis aux experts des différentes spécialités de poursuivre les discussions engagées avec les chercheurs et les doctorants de l'unité. L'organisation de ces deux journées a ainsi permis au comité d'acquérir une vision assez claire des recherches originales et des résultats innovants obtenus aussi bien dans laboratoire que dans le cadre de collaborations avec les utilisateurs du LLB. En correspondance avec les sept chapitres du rapport d'activité, des éléments d'évaluation plus spécifiques et quelques suggestions sont proposés, en Annexe, par les experts du comité.

Pour évaluer la production scientifique et surtout pour élaborer des recommandations précises, le comité a éprouvé quelques difficultés à pouvoir toujours identifier les éléments moteurs des différents succès rencontrés : utilisateurs et/ou chercheurs du LLB ? Par exemple, si la liste des publications est impressionnante, son analyse en termes de recherches « in house » mériterait une présentation plus…différenciée? Ce qui n'est évidemment pas toujours pertinent, mais peut aider à déceler certaines difficultés dans l'activité de tel ou tel chercheur du laboratoire.

Le comité a aussi reçu une délégation des membres du conseil de laboratoire qui ont exprimé leurs préoccupations sur l'évolution des effectifs du personnel technique et des chercheurs. Plusieurs demandes ont été exprimées :

- le souhait d'une concertation plus approfondie sur la répartition des tâches techniques et administratives et sur les priorités de recrutement,
- une meilleure communication à travers les instances comme le conseil de laboratoire, qui permette de guider les choix d'intérêt commun,
- une prise en charge plus collective des problèmes de sécurité, liés en particulier à la présence d'utilisateurs peu sensibilisés.

Le comité s'est enfin longuement entretenu avec l'équipe de direction sur les projets et les perspectives du LLB ainsi que sur les moyens à mettre en œuvre pour leur réalisation. Réuni en comité restreint, le comité d'évaluation a élaboré quelques recommandations générales, dont le contenu a été affiné, par correspondance, au cours des semaines qui ont suivi sa réunion.

Recommandations générales

1) Dans plusieurs domaines de recherche le LLB est reconnu comme laboratoire « leader » au niveau international. Il s'agit, par exemple :

- Des études de structure sous très hautes pressions combinant la diffraction de neutrons avec celle du rayonnement synchrotron, grâce au développement d'une instrumentation très performante.
- Des études de changement structuraux et de dispersion des excitations magnétiques dans les cuprates, les manganites et les hexaborures de terres rares, visant à comprendre la compétition entre les degrés de liberté structuraux, magnétiques et de charge, dans l'apparition des propriétés physiques anormales telles que la supraconductivité à haute température critique ou la magnétorésistance colossale.
- Des études structurales de polymères fondus ou en solution, de tensio-actifs auto-assemblés ou encore de systèmes complexes associant des polyélectrolytes et des particules colloïdales chargées comme on en trouve,en particulier, dans les milieux biologiques. Ici, la variation de contraste H/D est exploitée de façon extensive pour identifier le rôle de chaque composante dans la structuration.

L'excellence des résultats obtenus dans ces recherches mérite d'être souligné. Elle repose, plus particulièrement, sur un parc d'instruments de diffusion neutronique maintenus au meilleur niveau de performance et sur un mode de fonctionnement, unique, qui permet la réalisation d'expériences innovantes et difficiles.

2) Début 2006, les directions du CNRS et du CEA ont signé un contrat de 5 ans, renouvelable, permettant au LLB de conserver sa place parmi les installations européennes les plus performantes en diffusion neutronique. Le budget annuel de 11,5 M€ que consacrent ces organismes au fonctionnement de l'installation (hors salaires) mérite certainement que les meilleures conditions soient réunies pour maintenir la compétitivité du LLB. Dans cette perspective, ses moyens en personnels apparaissent nettement inférieurs à ceux des autres réacteurs de recherche ayant, à travers le monde, un positionnement comparable à celui du LLB (par exemple : NIST, FRM2, HMI, etc.). Cette situation semble d'ores et déjà critique, eu égard au fonctionnement des instruments actuels et à l'accueil des utilisateurs, au jour le jour, mais elle pose aussi la question du développement et du renouvellement du parc instrumental qui est indispensable pour le maintien de la compétitivité du LLB. Le comité d'évaluation tient à souligner que l'effort financier nécessaire pour recruter une dizaine de techniciens et d'ingénieurs chargés de la maintenance, du développement des instruments et de l'environnement des échantillons (fours, cryo-aimants, cryostats pour hautes pression, très basses températures, etc.) reste très modeste en comparaison du budget annuel consenti par les tutelles pour le fonctionnement du réacteur. Ajoutons que, si l'on considère la valeur totale de remplacement des 22 instruments en fonctionnement, qui est estimée à environ 55 M€, le budget annuel consacré à leur maintenance et à leur renouvellement n'est pas en adéquation avec la valeur de ce parc instrumental. Il conduit donc à sa ruine à moyen terme !

3) Pour une analyse détaillée des évolutions à prévoir dans le domaine de l'instrumentation, le comité suggère la mise en place d'un « sous-comité instruments » et chargé d'une procédure d'évaluation, groupe d'instrument par groupe d'instrument, impliquant des experts extérieurs (certains membres du comité sont volontaires) et des utilisateurs représentatifs venant présenter et discuter de leurs résultats. Une telle démarche pourrait permettre d'opérer des choix concertés pour la modernisation de certains instruments vieillissants, la nécessaire

suppression d'installations obsolètes, l'affichage de priorités pour la construction de nouveaux spectromètres et une re-discussion du partage des charges entre les personnels techniques.

4) Les initiatives prises par la direction du LLB pour impliquer les utilisateurs et leurs conseils régionaux dans le financement de nouveaux instruments ou de thèses co-financées, sont vivement encouragées et ils doivent être renforcées, tout comme les efforts consentis pour faire venir, en congé sabbatique ou en délégation CNRS, des enseignants-chercheurs prêts à s'investir dans les techniques de neutrons.

5) Le comité recommande, en particulier, une association beaucoup plus forte du laboratoire avec une université partenaire (pourquoi pas sous la forme d'une UMR tripartite ?) Celle-ci permettrait l'accueil au LLB d'enseignants-chercheurs permanents (aussi bien auprès des instruments que dans le groupe théorie) et une plus forte implication des chercheurs CEA et CNRS dans l'enseignement universitaire et les écoles doctorales de spécialité. La participation du LLB dans le RTRA « Triangle de la Physique », aux cotés de l'Université de Paris Sud, suggère tout naturellement d'engager la discussion avec ses instances dirigeantes et avec les autres UMR qu'elle abrite.

6) En effet, pour aider les chercheurs permanents à développer leur propre problématique de recherche, il est aussi recommandé d'augmenter le nombre, jugé trop faible, des doctorants du LLB, en particulier par la diversification des modes de financement ou de co-financement des thèses (CFR, CRTC, BDI, Allocations MRES via les écoles doctorales de rattachement, bourses du RTRA, appels d'offre de l'ANR, de l'ERC, etc.).

7) Toutes les initiatives prises ou soutenues par le LLB pour la formation à la diffusion neutronique des jeunes scientifiques et des doctorants (Fans du LLB, Ecoles thématiques de la SFN, participation à l'école Hercules, cours décentralisés, etc.) sont aussi jugées extrêmement importantes pour maintenir ou développer, dans les laboratoires, une culture de l'utilisation des grands instruments et de leurs performances uniques.

8) Enfin, au-delà de la complémentarité avérée, dans de nombreux domaines, des techniques de diffusion des neutrons et de rayonnement synchrotron, d'un recouvrement important des communautés d'utilisateurs, et de possibles infrastructures communes, le renforcement de la synergie avec SOLEIL est vivement encouragé dans deux directions particulières :
8-1) la formation des jeunes chercheurs à l'utilisation des grands instruments (voir ci-dessus),
8-2) une offre de service plus complète, voire un portail unique en direction des utilisateurs industriels (en particulier en métallurgie et en matière molle). Dans cette perspective, il a été suggéré qu'un rattachement au LLB les activités de service en matière de radiographie et de tomographie neutrons donnerait une meilleure visibilité à l'ensemble de cette offre.

En conclusion, le LLB se situe à un excellent niveau dans les actions de recherches qui y sont engagées et dans son activité de service auprès de la communauté française et européenne de la matière condensée. Ses succès s'appuient, bien entendu, sur le travail, le talent et l'enthousiasme de l'ensemble des personnels, chercheurs, ITA, ingénieurs et agents CEA, mais il doit également beaucoup à l'implication et au mérite de ses équipes de direction : celle de Pierre Monceau qui s'est particulièrement investie jusqu'à l'an passé et, maintenant, celle de Philippe Mangin. Bien que le comité ne soit pas compétent pour se prononcer sur la désignation du directeur d'unité, il souhaite vivement que Philippe Mangin puisse continuer d'assumer cette direction pour les années à venir et qu'il poursuive, avec l'aide du conseil de

laboratoire, la mise en place de moyens consensuels permettant de développer un fonctionnement encore plus collectif.

Annexes

1-Structure and phase transitions

Parmi les percées réalisées ces dernières années, les études de diffraction sous pression méritent d'être soulignées. En réalisant en particulier des cellules de pression compatibles pour les mesures de diffraction du rayonnement synchrotron, des études couplées neutrons-rayons X sur des monocristaux de deutérium à des pressions atteignant 38 GPa ont pour la première fois apporté des informations sur la structure de la phase à symétrie brisée d'origine quantique. Dans des cristaux de structure pyrochlore à ordre magnétique frustré, une transition ferromagnétique-verre de spin a aussi été mise en évidence par diffraction de poudre sous pression.
Parmi les nombreuses études réalisées sur des changements de phase magnétiques ou structuraux, les transitions de phase en milieux confinés ont fait l'objet de plusieurs études originales en collaboration avec des équipes extérieures. Cela concerne des systèmes trés divers allant de cristaux liquides à des oxydes magnétiques en passant par des verres structuraux, dans des matrices nanoporeuses.

2- Superconductivity and magnetism

Il s'agit d'une autre thématique dans laquelle les équipes du LLB ont obtenu des résultats de tout premier plan, qui, pour certains d'entre eux, ont constitué des premières mondiales. Ces succès sont dûs à une utilisation intelligente des moyens complémentaire mis à disposition non seulement au LLB, mais aussi à l'ILL. Ils démontrent le rôle incontournable et la complémentarité des installations "nationales" dans la préparation et la réalisation d'expériences difficiles ou nécessitant un gros investissement en temps de faisceau.
La recherche menée au LLB dans le domaine de la supraconductivité non conventionnelle (supraconductivité "d-wave" des cuprates à haute température critique, supraconductivité "p-wave" des rutenates) est à mentionner en premier lieu pour sa qualité, son originalité et son dynamisme. Plus particulièrement, la mise en évidence par neutrons polarisés sur le "3-axes" 4F1 d'un ordre magnétique nouveau à plus ou moins grande distance dans la phase "pseudo-gap" d'YBCO a été un des faits marquants de ces deux dernières années. Bien que la nature orbitale de cette contribution n'ait pas encore été démontrée, les résultats obtenus sont tous compatibles avec l'existence des fameux "courants orbitaux" prédits par les théoriciens. Les équipes du LLB, souvent en collaboration avec des groupes extérieurs, ont obtenu des résultats inédits sur les évolutions en fonction de la température et du dopage des spectres d'excitations magnétiques dans les cuprates dopés en trous : YBCO (résonance acoustique et optique, corrélations magnétiques incommensurables, phonons) et BISCO (résonance optique), ainsi que dans le cuprate dopé en électrons $(Nd,Ce)_2CuO_4$.
Les résultats obtenus par diffusion inélastique des neutrons sur la dispersion des excitations magnétiques dans les manganites à "magnétorésistance colossale" $(La,Sr)MnO_3$ ou $(La,Sr)_2MnO_4$ sont tout aussi remarquables. Pour les premiers, en particulier, ils ont révélé la coexistence d'ordres de charges ou « stripes » dans une phase ferromagnétique. Pour cette thématique importante, deux chercheurs très moteurs vont partir en 2007, ce qui pose question sur son devenir.
Même si elles ne concernent qu'un petit nombre de chercheurs au LLB, les recherches sur le magnétisme de terres rares anormales et les systèmes dits à "fermions lourds" ont récemment

produit des résultats importants sur les ordres quadrupolaires antiferromagnétiques dans les héxaborures de terres rares $(Nd,Ce)B_6$, à partir de l'étude des diagrammes de phase H-T. Il faut aussi souligner que le développement des thématiques sur les "systèmes à électrons fortement corrélés" nécessite des développements instrumentaux (en particulier des neutrons polarisés et de l'analyse de polarisation) et des environnements d'échantillon "extrêmes" (champ forts verticaux et horizontaux, hautes pressions pour larges volumes, très basses températures). Enfin, pour que le LLB puisse continuer à développer une recherche propre, il serait sans doute souhaitable de renforcer le groupe de cristallogenèse pour pouvoir disposer d'une production interne d'échantillons.

3- Material science and applications

Les résultats obtenus sur les membranes d'alumine mésoporeuse sont d'excellente qualité. La fabrication des membranes par voie électrochimique est assurée au LLB ce qui permet de contrôler la taille des pores et leur uniformité. Toutefois, l'aspect cardinal de ce travail repose sur l'étude dynamique de chaînes de polymères (PEO) confinées dans les pores de l'alumine. L'utilisation de la diffusion des neutrons par temps de vol est très convaincante. La dynamique est très différente selon que le rayon de giration de la molécule est inférieur ou supérieur au diamètre des pores. Dans l'avenir, il serait bon que cette technique soit développée et renforcée compte tenu d'une part de l'unicité des informations qu'elle peut apporter et d'autre part de l'expertise des chercheurs du LLB dans ce domaine.

La détermination des contraintes résiduelles dans des matériaux industriels est également une activité qu'il conviendra de soutenir dans le futur en améliorant la qualité du diffractomètre.

Finalement on peut noter la bonne santé des réflectomètres du LLB et l'excellence du travail fourni. Toutefois la technique de GISANS ne peut être appliquée qu'à quelques échantillons particuliers, compte tenu de la résolution et du flux disponibles sur l'instrument.

4-Soft matter

Les études de structure de systèmes complexes mous par diffusion de neutrons ont une grande tradition au LLB. Ceci repose à la fois sur l'exploitation astucieuse de la méthode de variation de contrat par deuteration sélective ainsi que sur les nombreuses collaborations avec des chimistes français et étrangers impliqués dans la synthèse de ces systèmes. L'évolution vers des systèmes sous contraintes mécaniques externes qui provoquent souvent des situations loin d'équilibre thermodynamique, ou sous champs électriques et magnétiques, ou sous confinement nanométrique est d'actualité. Dans l'ensemble les travaux sont de très grande qualité sans qu'il y ait pourtant des résultats réellement spectaculaires. Les études du facteur de forme et de la relaxation des contre-ions dans des complexes polyélectrolytes-protéines et du renforcement anisotrope de films de latex par des nanoparticules magnétiques sont particulièrement propres et originales.

5- Life Science

Dans le domaine des sciences de la vie, le LLB s'est spécialisé sur les études de structure et dynamique de macromolécules biologiques, essentiellement des protéines dans leur état natif, replié ou dénaturé, par des méthodes de diffusion élastique et inélastique de neutrons. Les études du rôle de l'eau d'hydratation bénéficient toujours de la grande expertise des chercheurs autour de J.Teixeira et de M.-C.Bellisssent-Funel dans ce domaine.

Particulièrement remarquables sont la mise en évidence de l'existence d'une transition liquide-liquide de l'eau vers 240K, de l'influence de la dynamique de l'eau sur celles des modes lents internes des protéines (lysozyme, phycocyanine, parvalbumine, β-lactoglobuline) et la détermination directe de la durée de vie de la liaison H par spin-echo en exploitant de manière astucieuse les facteurs de structures partiels dans des mélanges H_20/D_20. Notons aussi les études de dénaturation et d'agrégation induites par température ou haute pression qui devraient donner des informations sur les mécanismes de repliement de protéines. Finalement, le développement d'une méthode de synchronisation du faisceau de neutrons pulsés dans une manip « Time of flight », (MIBEMOL) avec un laser pour étudier la dynamique de protéines photo-excitables (phycocyanine) est apprécié et prometteur.

6- Theory

L'équipe « Théorie» du LLB est composée de 3 personnes depuis le départ de deux chercheurs qui s'interessaient tous deux à la matière molle et la biophysique. L'activité de ce groupe concerne,

- d'une part la physique non-linéaire : les résultats obtenus récemment sur la propagation des ondes dans les milieux anharmoniques sont d'un grand intérêt. Récemment une proposition pour l'origine de la sonoluminescence a été proposée.
- d'autre part les propriétés électroniques et magnétiques des supraconducteurs à haute Tc. Ce thème bénéficie d'une relation très étroite avec le groupe d'expérimentateurs travaillant sur ce sujet au LLB ; les résultats obtenus tant sur la dynamique de spins dans la phase surdopée que sur les points critiques quantiques dans les phases sous-dopées et sur-dopées ont permis de donner une description unifiée de ces systèmes.

Les résultats sur les supraconducteurs montre l'intérêt d'avoir une équipe de théoriciens au sein du LLB ; cependant cette équipe apparaît clairement d'une taille sous-critique, et le LLB va devoir faire des choix : une possibilité serait de collaborer plus étroitement avec des théoriciens d'autres laboratoires, en particulier en ce qui concerne la matière molle.

7- Instrumentation

Besides a high flux of hot, thermal and cold neutrons in the respective moderators, efficient transportation of these neutrons to the instruments, and innovative and ingenious instrumentation are the secret of a successful neutron source. This is in particular true, if this neutron source has to serve a larger national and international user community. The neutron source Orphée with its cold, thermal and hot beamlines is an excellent source, comparable for instance with the NIST neutron source in the United States or with the recently inaugurated FRM II at Munich, Germany. In general the nuclear operation and reliability of Orphée are exemplary. The neutron guides and neutron transportation for cold neutrons were excellent at the time of initial installation, but today urgently needs to be replaced by much better systems. Neutron gains at the entrance of the respective instruments by factors 10 to 100 are easily feasible.

The LLB has recognized this necessity and a continuous modernisation of the guide system has been launched (CAP 2010). This engagement has to be accelerated, i.e. the LLB needs the financial and personal means to do so. The LLB is world recognised for its excellent triple axis spectrometers. Different to the situation with the neutron guides, these thermal and cold triple axis spectrometers have been continuously upgraded and therefore are still to day at the forefront of this kind of instrumentation. The excellent research on the inelastic and magnetic excitations of the cuprates may serve as a prove. It is important to mention that, in connection

with the exchange of the respective guide tube an upgrade of the two cold axis spectrometers in the reactor hall is underway. At the time of its installation, the cold TOF spectrometer MIBEMOL was beside the corresponding instruments at the ILL world leading centre. Nowadays, MIBEMOL has lost this leading role and must urgently need a replacement. The idea, to replace MIBEMOL by a combination of energy definition by single crystals and energy analysis by time-of-flight - instead of an upgraded pure time-of-flight instrument - seems to be ingenious: by time focussing with single crystal monochromators after a renovated neutron guide with high supermirror coating and a large covering of reciprocal space with detectors would open the possibility to build an instrument which is world leading in the combination of neutron flux and energy resolution.

Malgré les difficultés rencontrées au cours des dernières années, l'activité d'instrumentation du LLB a produit des réalisations de haut niveau. On peut plus particulièrement citer:
- Les développements remarquables en diffraction sous hautes pressions > 50 kbar
- La jouvence du diffractomètre à haute résolution 3T2
- La construction de multi détecteurs pour les diffractomètres 6T2 et 5C1
- La construction d'une option "Très Petits Angles" de type SAMBA pour le diffractomètre PAXY
- L'installation d'éléments à supermiroir m=3 sur les faisceaux primaires des "3-axes" froids 4F1 et 4F2, qui ont permis un gain en flux de 1.4 à 1.9 suivant la longueur d'onde
- Les développements innovants en réflectométrie (projet TILTOF)

Le LLB participe aussi de façon active aux développements instrumentaux sur les détecteurs et les neutrons polarisés dans le cadre de plusieurs "Joint Research Activities" du réseau européen NMI3, suite des programmes européens XENNI et ENPI précédents.

Pour le long terme, le LLB a le besoin vital de poursuivre son actuel programme de modernisation, en particulier dans les directions visant à exploiter les spécificités des sources de type réacteur (entre autres: neutrons thermiques et froids, faisceaux blancs, faibles rapports signal/bruit, neutrons polarisés). Certains développements instrumentaux, vivement souhaités par la communauté des utilisateurs permettraient certainement d'accroître la compétitivité du LLB. Outre un nouveau spectromètre à temps de vol (X-TOF), évoqué ci-dessus, on peut citer une option "multiplexage" (de type RITA ou FLATCONE) sur l'un des "3-axes" thermiques (2T) ou froid (4F1) et un diffractomètre de Laue (de type VIVALDI) pour les études structurales. Par ailleurs il faut s'interroger sur l'implémentation d'options "neutrons polarisés" sur les spectromètres "3-axes" thermiques, sur le développement de filtres à ^{3}He polarisé et sur le besoin de champs magnétiques intenses > 12 T pour la diffraction et la diffusion inélastique.

La création d'un sous comité « instruments » (cf. recommandation 3) devrait permettre d'approfondir cette réflexion, de façon à orienter les choix stratégiques en fonction des priorités scientifiques.

Pour le Comité d'Evaluation, le Président,

Jean-François Legrand,

le 26 janvier 2007.

Minutes and recommendations of the instrument evaluation at the Laboratoire Léon Brillouin on November 8th, 2010

Introduction

After a first evaluation of the instrument suite of the Laboratoire Léon Brillouin and its further development in the year 2007 the direction of the LLB has invited for a second meeting of the Instrument Committee (IC) on November 8th, 2010. Most of the members of the committee are involved in the instrumentation of the six neutron sources in Europe with an international user community. The members of the committee[1] are

- Laurent CHAPON ISIS (excused)
- Daniel CLEMENS Helmholtz-Zentrum Berlin, HZB
- Jean-François LEGRAND* Université de Strasbourg
- Thierry STRAESSLE Paul Scherrer Institut
- Andreas MEYER German Aerospace Center, Cologne
- Winfried PETRY* Technische Universität München, FRM II (Chairman)
- Helmut SCHOBER* Institute Laue Langevin
- Charles SIMON* CNRS
- Françoise Leclercq* Hugueux, SFN (observer)

The direction of the LLB has asked the IC for advice on the following aspects:

- ⇒ Are the measures and actions taken within the renovation program CAP 2010[2] (after the advice of the 1st IC in 2007) adequate?
- ⇒ Evaluation of the instrument upgrade and renovation within CAP 2015[3].
- ⇒ Classification of the program CAP 2010 and CAP 2015 with respect to the needs of the French neutron community and within a wider perspective of the European landscape of six decent neutron sources with international user programs and in particular in view of the project of the future long pulsed European Spallation Source (ESS) at Lund.

The following personal from the LLB participated mainly by oral presentations in the evaluation

- Christiane ALBA-SIMIONESCO (Directrice LLB)
- Brigitte BEUNEU
- Annie BRULET
- Sylvain DESERT
- Grégory CHABOUSSANT
- Arsen GOUKASSOV
- Stéphane LONGEVILLE
- Marie-Hélène MATHON
- Alain MENELLE
- Jean-Marc ZANOTTI

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[1] Persons which have also been members of the 1st IC are marked with an *.
[2] CAP 2010 comprises the instrument renovation and upgrade in the period of 2005 to 2010,
[3] CAP 2015 comprises the proposal for the continuation of CAP 2010, i.e. the instrument renovation and upgrade for a period ending in 2015. [4]The renovation and upgrade within CAP 2010 and CAP 2015 deals with those instruments, which risk falling behind the state of the art in neutron instrumentation.

The instrument suite of LLB

The instrument suite at LLB is perfectly adapted to the particular interest and strength of the French neutron community. Almost[4] all instruments are competitive with those at the neutron sources of Table 1. Some of them are among the very best – like triple axis spectrometers and small angle cameras.

Triple axis spectrometry
- Thermal 1T, 2T,
- Cold 4F1, 4F2,

Quasielastic spectroscopy
- MIBEMOL, MUSES

Wide angle diffraction
- Thermal, powder 3T2, single crystal 6T2, materials 6T1
- Cold, powder G4.1 G6.1 (high pressure), materials G5.2
- Hot, liquids 7C2, single crystal 5C1, 5C2

Large scale structures
- Reflectometers PRISM, EROS
- Small angle cameras PACE, PAXY, PAXE
- Very small angle camera TPA

Conditions for a healthy instrument development and renewal programme

The capital costs to build a new scattering instrument at a decent neutron source like LLB amounts to about 3 – 4 M€. The scientific life time of an instrument extends to a maximum of 20 years. As today the LLB operates a suite of 21 instruments in its general user programme. This results in an annual investment need of 3 – 4 M€ for the renewal and upgrade of its instrumentation. This has already been stated in the minutes of the instrument evaluation from November 2007. The current budget for instrumentation is far away from that. On medium term this discrepancy will have severe consequences with respect to the actual outstanding scientific output and strong international reputation of the LLB. The IC therefore strongly reminds the stake holders CEA and CNRS to do their best to close this gap in due time. The IC also asks the direction and the scientists at LLB to be imaginative in finding additional funds like regional funds, support by the European Framework Program. This has been done successfully in the past with regional funds from Aquitaine, Bretagne, Framework Program 5 & 6 & 7 of the EC. Recent evolution of funding for science in France opens the way for new opportunities which will replace historical funding which are decreasing: EQUIPEX of "grand emprunt national", ANR in instrumentation, Swedish contract for future ESS.

Further the minimum personnel needed to operate the scientific instruments of a neutron source with an extended user program amounts to 5 persons per instrument (2 scientists + 1 technician directly attached to the instrument, 2 persons per instrument for general services like sample environment, IT, directors, secretaries,

[4]The renovation and upgrade within CAP 2010 and CAP 2015 deals with those instruments, which risk falling behind the state of the art in neutron instrumentation.

electronics, detectors, neutron optics …). With 21 instruments for the general user service this number should be around 105 persons; however the current personnel (77 permanent researchers and technicians plus 25 post-docs and PhD students) is quite low to fit with the minimum needs.

The LLB in the landscape of the European neutron sources

Although being a national source dominantly serving the needs of the French science community LLB is an important part of the European landscape of five national neutron sources, all with a considerable international user community and international impact. These five national sources are the indispensable condition for the effective use of the European Institute Laue Langevin at Grenoble – and with a longer perspective for the successful taking into operation of the European Spallation Source at Lund. By means of this suite of national and international neutron sources the Neutron Community in Europe is by far the leading community – and will remain when compared to the American and Pacific regions. The share of these centres in the education of future specialists in the different fields of neutron scattering is unmatched, and relies on modern instrumentation. Table 1 displays the key figures of the European neutron sources and Figs. 1 & 2 give an impression of the wide spread usage of the LLB. France, Germany, Great Britain and Switzerland, each having a decent national neutron source are also the countries contributing most to and having the biggest feed back from the international source HFR at ILL.

With respect to the complementarities of the instrumentation at LLB and at a future ESS the IC view is as follows:

- ⇒ The predominant task of the instrumentation of LLB is to serve the needs of the French neutron community, its particular interests and fields of expertise.
- ⇒ As a consequence, there will be instruments at LLB and at a future ESS of similar momentum, energy (Q,ω) range, resolution … This competition is an absolute prerequisite of a healthy development of the French utilisation of ESS: i) French scientist will be better prepared to use those instruments at ESS, ii) also instrumentation needs competition to become excellent.
- ⇒ In fields like hot neutrons, strain measurements, radiography and tomography, production of (radio)isotopes, particular sample environment or ultra cold neutrons strong continuous neutron sources like ORPHEE might stay ahead of a long pulse spallation source.

Table: Neutron Sources in Europe with an international impact. Numbers relate to 2009 or 2010. By its nature some of the figures are rough estimates and not directly comparable. This holds in particular for the personnel. While all the institutions are open to European and even international access, the national facilities are funded by national and even regional resources.

Source	Operational since	Thermal power	Nominal integrated flux [$m^{-2}s^{-1}$]	Nominal peak flux [$m^{-2}s^{-1}$]	Nominal operation time /a	No. of user instruments	Scientific users /a[5]	Personnel Operation + scientific usage[6]	Estimated overall budget p.a.
HFR, ILL	1971	Nominal 58 MW, actual 51 MW	$1{,}3 \cdot 10^{19}$		200 d/a	27 + 10 CRG	1400	490 incl. 30 thesis students full time equ.	83 M€ stand alone budget
FRM II, TUM & JCNS & GKSS	2005	20 MW	$8 \cdot 10^{18}$		240 d/a	23 operational 7 under construction + positrons + irradiations facilities	1000	230 actual 320 future	actual 33 M€, future 55 M€ stand alone budget
ORPHEE, LLB, CEA & CNRS	1981	14 MW	$3 \cdot 10^{18}$		180-200d/a	21 external use 3 internal use	600	59 reactor 77 scientific use permanent 25 students + post doc	10.8 + 5 M€ reactor 10 M€ LLB
BER II, HZB	1973 1993 upgrade	10 MW	$1.2 \cdot 10^{18}$		220 d/a	16 operational 3 restricted access	400		> 25 M €
SINQ, PSI	1996	1 MW at target	$1.5 \cdot 10^{18}$		210d/a	13 external use 4 internal/ restricted 4 x Muons	945 visits by 465 persons	120 incl. postdocs (excl. PhD, muons, p-accelerator)	30 – 40 M€ realistic estimate
ISIS, STFC, Rutherford	1985 Target 1 2009 Target 2	200 µA ·		$4.5 \cdot 10^{19}$	180 d/a	27	1500	340	55 M€ stand alone budget

[5] No. of scientific users comprises the no of scientist visits to perform an experiment. If the same person comes two times a year for two different experiments it is counted twice.

[6] The no. of personnel for the operation of the facility and its scientific service is particular difficult to compare. For instant the figure for ILL includes the security personnel, but ISIS and FRM II do not. The operation of Orphee heavily relies on services from CEA-Saclay. Here only the personnel for the operation of Orphee is quoted.

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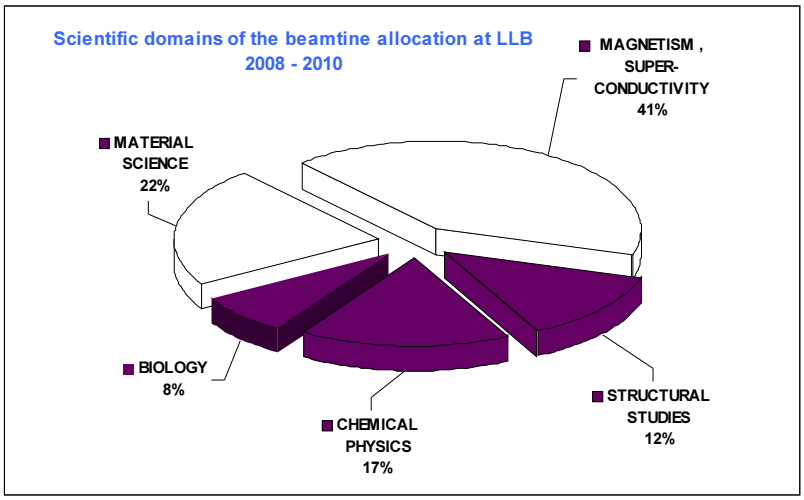

Fig. 1: Allocated beam times at LLB for the years 2008 – 2010, according to science fields.

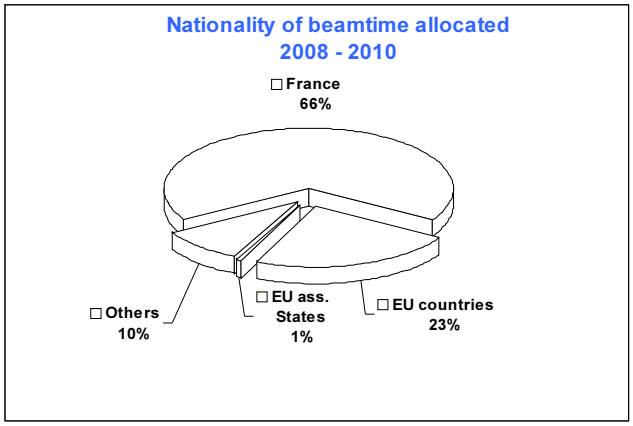

Fig. 2: Allocated beam time at LLB according to countries over the years 2008 -2010

Achievements by CAP 2010

The structural and organisational measure, namely to create groups of personal dedicated to the upgrade of existing and the construction of new instruments has been very successful. Time schedules and budget plans with precisely allocated budgets and aims have been established and are closely followed by both, the direction and the staff. Further the institute has focused on a well defined number of projects and has started to shut down less performing instruments.

The instruments PAPYRUS and G5.6 have been closed in order to create the space for PA20

MICRO (G6.1)
Construction finished, its main achievement is the detector made out of 16 position sensitive tubes with 12 bar ^{3}He, high pressure guarantees for high counting efficiency also at small wavelength, detector tubes about 1 m long are horizontally oriented, now in commissioning phase, first measurements show perfect separation of Debye-Scherrer cones, routine operation around March 2011. This instrument will be dedicated to the very high pressure program LLB is widely renowned for (The LLB keeps the record for highest pressures for neutron scattering).

VIP (very intense polarized powder diffractometer)
Vertically oriented position sensitive detector tubes, completely new construction almost finished. A new type of single crystal polarized diffractometer equipped with a large PSD covering 1 steradian on the diffraction sphere. It is in commissioning stage but first experiments show that it boosts the data acquisition rate by an order of magnitude. After replacement of its Heussler monochromator in 2012 it is expected to be the most efficient polarized neutron diffractometer in the world

TPA (ultra small angle scattering)
This is a multi pin hole instrument. The commissioning is on the way to be finished and routine operation has been started. This instrument completes the small angle capacities of LLB to very small scattering vectors – i.e. large structures up to the µm range. This instrument is judged as the best possible compromise between intensity and access to very small scattering vectors in the range of 10^{-4} – 10^{-3} Å^{-1}. Further it stands out with its inovative concept of multi pin holes, its exceptionally small length and last not least its relatively low investment budget.

7C2 (liquid diffractometer at hot neutron source)
Following the advice of the previous IC the multi-strip-detector project has been abandoned. Instead a multi detector composed of 256 position sensitive tubes with 30 bar ^{3}He pressure has been purchased. The 30 bar pressure guarantees for excellent neutron detection at wavelength as short as 0.5 Å. Despite the shortage of ^{3}He for neutron detectors the 256 detectors have been delivered in December 2009 and the missing 2nd half was expected towards the end of 2010. The instrument will be commissioned beginning 2012.

In view of the limited resources in capital and personnel available for the renewal of the instrument the IC considers the achievements of CAP 2010 as excellent.

Considerable progress in design, purchasing orders or prototype construction has been achieved for the instruments

- PA20 (small angle)
- 6T1 (strain and texture)
- FA# (cold hybrid-TOF)
- EROS-II (reflectometer)
- MULTIMUSES (resonant spin echo)

They all are at the heart of CAP 2015 and will be reported in the following section.

Evaluation of CAP 2015

A detailed multi annual budget and time schedule for the CAP 2015 instrument suite has been presented. The IC judges this as a very realistic and feasible base for the realisation for CAP 2015, provided the announced investments are available in due time.

PA20, PAXY (small angle)
Traditionally the LLB operates flag ship instrumentation for the detection of large structures by small angle scattering and reflectometry. Partly this has been initiated by the French community in material science, solid state physics, soft matter and biophysics/biochemistry, all of which are very competitive on the international scale. To a certain extent this instrumentation has also re-enforced that community. The progress achieved in the modernisation of the suite of small angle instruments at LLB is impressive. The very small angle scattering camera TPA received its first users, two multitube detectors of an active area of 64 x 64 cm^2 have been ordered at ILL, one foreseen for the new PA20 and one to upgrade PAXY. Delivery is foreseen for 2012. Impressive progress in the design of the new 2 x 20 m SANS PA20 has been presented. It will benefit from new focussing lenses, optimised polarisation, greater detector area with higher resolution and greater versatility in Q-range. With the completion of CAP 2015 the LLB will certainly maintain and probably even strengthen its competitiveness in the field of small angle scattering.

EROS-II (reflectometer)
Two reflectometers are in service at LLB. PRISM serving the magnetic community with its polarization analysis and EROS the soft matter community. The closure of MIBEMOL and installation of FA# at a new dedicated neutron guide opens the possibility to move EROS II to the former MIBEMOL position giving access to significantly larger primary neutron intensity. The IC strongly endorses this planning, also considering a timely closure of MIBEMOL (before accomplishment of FA#).

Super 6T1 (strain and texture)
Stress and texture are properties of prime importance for material sciences. Its measurement with neutrons will be combined in the new Super 6T1, replacing 6T1 and keeping G5.2 for only very large pieces. Central for the upgraded 6T1 is a DENEX 2 dim. detector making possible the combined measurement of strains (stresses) and textures on the same instrument and same sample. Gain factors in intensity exceeding 10 are expected. Both, the 2-dim. multidetector and the combination of strain/stress measurements with those of texture will give to the French materials science community an instrument which is fully competitive with the present upgrades of similar instruments at ILL, FRM II and ISIS.

FA# (cold hybrid-TOF)
Together with IN5 from ILL MIBEMOL has been the leading cold time-of-flight spectrometer in the 80ths and 90ths. New cold time-of-flight instruments like IN5new at ILL and TOFTOF at FRM II have made MIBEMOL obsolete to a large extend. *The French magnetic excitation, soft matter and biophysics community urgently needs a competitive instrument for (polarized) quasielastic and inelastic scattering up to 15 meV over a large Q-range with very low background.* To that purpose an instrument project based on a focussing monochromator, Fermi-chopper and time-of-flight analysis in the secondary spectrometer – a so-called hybrid-tof - has been launched in the course of CAP 2010. To enhance the intensity at the sample and/or detector position the instrument combines time focussing with optical focussing elements. A

first version of this concept has been realized with FOCUS at PSI. FA# - as this project is called at LLB - has the potential to conquer the market of comparable instrumentation and to be world leading in intensity, background and versatility. In view of the importance and uniqueness of FA# for the French community – together with MULTIMUSES it will be the only instrument for quasielastic scattering at LLB – the IC strongly recommends accelerating the design phase. Otherwise the ambitious time schedule with an FA# operational in 2016 will be in danger. A basic decision (i) whether, (ii) how and (iii) for whom, the instrument shall provide polarization analysis should be taken now within the design phase. The growing trend for the study of single-crystalline samples on TOF spectrometers should also be taken into account in the design. The presented budget plan is judged as being tight, but still feasible. There remains a financial risk related to the ^{3}He shortage.

MULTIMUSES (resonant spin echo with multidetector)
MUSES is the existing spin echo spectrometer at LLB for quasielastic scattering mainly applied for soft matter including biomaterials. It measures in the time frame (intermediate scattering function), is of the resonance spin echo type and has a time resolution in the range of 1 ps – 20 ns. MUSES in its present configuration has a single detector and is therefore intensity limited in its applications. To remain competitive with conventional spin echo spectrometers like those installed at ILL and FRM II MUSES *has to be equipped* with a multi detector secondary spectrometer, i. e. MULTIMUSES. Such a wide angle multi detector for NRSE does not yet exist and its development is a real technical challenge. First very promising design options have been presented. However none of the technical challenges is so far really solved. FRM II operates with RESEDA an instrument very similar to MUSES. Also FRM II is in the course of developing a multi detector design. The IC strongly urges the MULTIMUSES working group for an intense exchange with the Munich group (and vice versa!). MULTIMUSES has a clear chance to become unique and leading in its field, this in particular due to the very intense cold neutron guide and its excellent primary polarisation. Spin manipulation will be one of the innovative techniques used for ESS instrumentation. MULTIMUSES is an excellent training field for this technology.

Both, time of flight techniques and spin coding are techniques which will be used extensively for the advanced instrumentation of the ESS. So, the realisation of FA# and MULTIMUSES is the ideal playground to considerably strengthening the French ability to compete for instrumentations projects at the ESS.

7C2 (liquid diffractometer at hot neutron source)
This diffractometer for the structure analysis of liquids and amorphous materials will largely profit from the excellent detector renewal within CAP 2010. The IC recommends including an enlargement of the monochromator in the program of CAP 2015. This would increase the intensity measurable in the detectors once again, probably without compromising on the resolution of the diffractometer.

NEPTUNE (neutron polarisation for all instruments)
Polarisation of incident neutrons and subsequent analysis of the scattered neutrons is an absolute necessity to tackle the questions of modern solid states physics. A few examples: correlated electron systems, high T_c-superconductors, quantum phase transitions, multiferroics, … But also soft matter physics needs polarisation analysis, i.e. to properly separate coherent from incoherent scattering. Some of the instruments at LLB are already equipped with polarizing supermirrors. However at LLB Heusler monochromators and broad band polarisers on the base of polarized

^{3}He are missing. Heusler single crystals are the best choice for polarizing the incident beam of triple axis spetrometers. The suite of triple axis spetrometers would considerably profit from such an investment. Only ^{3}He absorption filter types of polarizer or analyzer makes full polarisation analysis available for time-of-flight instruments and small angle scattering. This is why ^{3}He polarization filters are important for LLB. They can be operated in two alternative ways, either by MEOP or SEOP. MEOP has the advantage that the technology is completely available for polarisation degrees of 75% and key ready facilities can be purchased for 1 – 2 Mill. €. Its inherent disadvantage is the decay of the polarisation over some 100 hours. SEOP has the advantage that the polarisation of the spin filter is constant over time, the disadvantage that the technology for reliable and reproducible 75% polarisation is not yet available and each instrument needs its own polarisation equipment. Whereas the ^{3}He polarisation for a single instrument might be cheaper with SEOP, both methods need about the same investment in case a suite of instrumentation is considered. And in particular both methods need additional personnel – 1 scientist, 1 technician - dedicated solely to the task of ^{3}He polarisation. LLB opts for the SEOP technology. In view of the urgent scientific need for polarization analysis the IC strongly recommends to realize NEPTUNE (SEOP + Heusler). Given the limited capital as well as men mower resources at LLB external funding should be asked for.

Only the above mentioned instruments and project have been evaluated during the meeting. It is well understood, that CAP 2010 & 2015 comprise also the modernisation of further instrumentation as for instance the triple axis spectrometers and in particular the extension of the support for experiments like sample environment.

Executive Summary

- ⇒ The IC considers the structural and organisational measures for CAP 2010 & 2015, namely to create groups of personal dedicated to the upgrade of existing and the construction of new instruments as appropriate and very successful.

- ⇒ In view of the limited resources in capital and personnel available for the renewal of the instrument the IC considers the achievements of CAP 2010 as excellent.

- ⇒ The instruments considered for CAP 2015 perfectly match with the urgent needs of the French neutron research community.

- ⇒ The projects for small angle scattering, reflectometry and materials science are in good progress and essential all technological challenges have been solved.

- ⇒ The projects MULTIMUES and especially FA# urgently need additional resources for finishing the design phase and for the required accompanying feasibility studies. The main technological tasks are not yet solved. This is in contrast to the importance of these instruments for the LLB. The LLB risks losing its expertise in the study of the dynamics of magnetic fluctuations, soft matter and biological materials.

⇒ The IC judges the multi annual budget and time schedule for the CAP 2015 instrument as a realistic and feasible base for the realisation for CAP 2015, provided the announced investments and allocated personnel are available in due time.

⇒ In view of both, the limited capital as well as men power resources at LLB and the urgent scientific need for polarisation analysis the IC strongly recommends to realize NEPTUNE (SEOP + Heusler). It is an ideal project, for which external funding should be asked for.

⇒ From a more general point of view the IC wants to stress that in order to keep the LLB at its present level of world renowned excellence, to fully meet the needs of the French user community and to be prepared for the scientific and technological adventure of the European Spallation Source a continuous high level of re-investment and a minimum of five persons per instrument are required.

Agreed upon by all members of the committee, in January 2011.

Winfried Petry
(Chairman)