

# ASR2007 Timetable



November 6-9, 2007  
Advanced Science Research Center  
Japan Atomic Energy Agency  
2-4 Shirakata Shirane, Tokaimura, Nakagun  
Ibaraki 319-1195, Japan

Chair: Y. Katsumura

## November 6 (Tue.)

8:00 – 8:50	Registration
8:50 – 9:00	Opening (Y. Katsumura/Y. Hatano)
9:00 – 10:15	<b>Primary Processes</b> Discussion Leader: <b>M. Ukai</b> (Tokyo Univ. Agri. & Tech.)
9:00 – 9:20	<b>A. Mozumder</b> (NDRL) “Electron Localization in Liquid Hydrocarbons : The Anderson Model”
9:20 – 9:40	<b>N. Kouchi</b> (TIT) “Multi-electron excitation by photon and electron interactions with molecules”
9:40 – 10:00	<b>C.L. Winstead</b> (Caltech) “Resonant Interactions of Slow Electrons with DNA Constituents”
10:00 – 10:15	Discussion
10:15 – 10:30	Coffee break
10:30 – 12:10	<b>Electrons &amp; Ions</b> Discussion Leader: <b>K. Nakagawa</b> (Kobe Univ.)
10:30 – 10:50	<b>M. Mostafavi</b> (Univ. de Paris-Sud) “TBA”
10:50 – 11:10	<b>J. Wishart</b> (BNL) “TBA”
11:10 – 11:30	<b>V. Borovkov</b> (Inst. Chem. Kinet. & Combust., Novosibirsk) “The kinetics of radiofluorescence as the informative response to pulsed irradiation: Applications to studying of the primary radiation-induced processes in nonpolar solutions”
11:30 – 11:50	<b>O. Brede</b> (Univ. Leipzig) “Free electron transfer in non-polar systems”
11:50 – 12:10	Discussion
12:10 – 13:30	Lunch
13:30 – 15:10	<b>Charged Particles Interaction with Interface</b> Discussion Leader: <b>T. Majima</b> (Osaka Univ.)
13:30 – 13:50	<b>S. Kapoor</b> (BARC) “TBA”
13:50 – 14:10	<b>D. Meisel</b> (NDRL)

	“Radio-Sensitization at the Surface of Nanoparticles – Prospects and Difficulties”
14:10 – 14:30	<b>T. Nagaishi</b> (JAEA) “TBA”
14:30 – 14:50	<b>C. Corbel</b> (CEA, Saclay) “TBA”
14:50 – 15:10	Discussion
15:10 – 15:30	Coffee break
15:30 – 17:30	<b>Heterogeneous Systems</b> Discussion Leader: <b>R. Yamada</b> (JAEA)
15:30 – 15:50	<b>T.A. Orlando</b> (Gatech) “Low-energy electron interactions with hydrated DNA and Complex Biological Targets” or “Radiation-induced processes in outer solar system ices” or “Non-thermal production of molecular hydrogen from water covered metal-oxide surfaces” or “The role of Coulomb explosions in the production of hydrated cluster ions” or “Nanopatterning using zone specificity in the electron-stimulated desorption of Cl <sup>+</sup> from Si(1111)”
15:50 – 16:10	<b>G.A. Kimmel</b> (PNL) “Electron-stimulated reactions in water films on Pt(111) and TiO <sub>2</sub> (110)”
16:10 – 16:30	<b>K. Hiraoka</b> (Yamanashi Univ.) “Electrospray droplet impact/SIMS”
16:30 – 16:50	<b>M. Dingfelder</b> (East Carolina Univ.) “Track structure simulations in heterogeneous systems” or “Electron emission from foils and biological materials after proton impact” or “Energy deposition in trabecular bone” or “Relativistic charged particle transport, a simulation of HZE particles and relativistic heavy ion”
16:50 – 17:10	<b>J.M. Jung</b> (Univ. Strasbourg 1) “Single-photon excitation and ionization of liquid alkanes by the synchrotron radiation between 6 and 11 eV” or “Single-photon excitation and ionization of liquid alcohols and water by the synchrotron radiation between 6 and 11 eV”
17:10 – 17:30	Discussion

## November 7 (Wed.)

9:00 – 10:15	<b>Supercritical water</b> Discussion Leader: <b>M. Taguchi</b> (JAEA, Takasaki)
9:00 – 9:20	<b>M. Lin</b> (JAEA) “On the yield of OH radical at elevated temperatures and supercritical water”
9:20 – 9:40	<b>A. Boutin</b> (Univ. de Paris-Sud) “Temperature, density and confinement effects on the hydrated electron physical and chemical properties by molecular simulation”
9:40 – 10:00	<b>S. Pimblott</b> (Univ. Manchester) “Stochastic analysis of radiation chemistry of aqueous systems at room and elevated temperatures”
10:00 – 10:15	Discussion
10:15 – 10:30	Coffee break

10:30 – 12:10	<b>Ion beams</b> Discussion Leader: <b>K. Takahashi</b> (Kanazawa Univ.)
10:30 – 10:50	<b>J. LaVerne</b> (NDRL) “TBA”
10:50 – 11:10	<b>M. Taguchi</b> (JAEA) “TBA”
11:10 – 11:30	<b>Y. Katsumura</b> (Tokyo Univ.) “TBA”
11:30 – 11:50	<b>G. Baldacchino</b> (CEA, Saclay) “Low yields determination in heavy ion radiolysis”
11:50 – 12:10	Discussion
12:10 – 13:30	<b>Photo/Lunch</b>
13:30 – 15:10	<b>Industrial and Medical Applications</b> Discussion Leader: <b>H. Shibata</b> (Kyoto Univ.)
13:30 – 13:50	<b>H. Namba</b> (JAEA) “TBA”
13:50 – 14:10	<b>S. Seki</b> (Osaka Univ.) “Electronic Structures and Charge Carrier Mobility of Ion Radicals on s-Conjugated Polymer Chains”
14:10 – 14:30	<b>T. Nakano</b> (Gunma Univ.) “Medical application of heavy ions and the biomedical research”
14:30 – 14:50	<b>T. Murakami</b> (HIMAC) “Compact hadron-therapy facility” “Present status and future of charged particle therapy facility”
14:50 – 15:10	Discussion
15:10 – 15:30	Coffee break
15:30 – 17:30	<b>Poster</b>
17:30 (?)	<b>Banquet</b>

## November 8 (Thu.)

9:00 – 10:15	<b>Polymeric Systems</b> Discussion Leader: <b>H. Kudo</b> (Tokyo Univ.)
9:00 – 9:20	<b>T. Kozawa</b> (Osaka Univ.) “Nanoscale distribution of intermediates in resist materials for next generation lithography” “Pattern formation mechanisms in chemically amplified resist for post-optical lithography” “Acid generation mechanism in chemically amplified EB and EUV resist”
9:20 – 9:40	<b>P. Ulanski</b> (Łódź) “TBA”
9:40 – 10:00	<b>G. Wu</b> (Shanghai Inst. of Appl. Phys.) “Radiation Polymerization in Ionic Liquids”
10:00 – 10:15	Discussion
10:15 – 10:30	Coffee break
10:30 – 12:10	<b>Effect of Complex DNA Damage on Its Repair in a Biological System</b> Discussion Leader: <b>R. Watanabe</b> (JAEA)

10:30 – 10:50	<b>H. Nikjoo</b> (NASA) “Radiation track, DNA damage and biological responses”
10:50 – 11:10	<b>M. Spothem-Maurizot</b> (CNRS Orléan) “Radiation induced dysfunction of DNA-protein systems” or “Proteins, critical cellular targets of ionizing radiation”
11:10 – 11:30	<b>E. Sage</b> (Univ. de Paris-Sud) “Processing of multiply damaged DNA site : <i>in vitro</i> and <i>in vivo</i> analysis”
11:30 – 11:50	<b>A. Yokoya</b> (JAEA) “Mechanism of DNA damage induction by direct effect of radiation”
11:50 – 12:10	Discussion
12:10 – 13:30	Lunch
13:30 – 15:10	<b>Interaction between Exotic Particles and Matter</b> Discussion Leader: <b>Y. Kobayashi</b> (AIST)
13:30 – 13:50	<b>S. Stepanov</b> (Inst. Theoret. & Experi. Phys., Moscow) “Positrons in radiation chemistry” or “Early reactions in tracks of positrons and electrons”
13:50 – 14:10	<b>R. Zaleski</b> (Maria Curie-Sklodowska Univ.) <b>“TBA”</b>
14:10 – 14:30	<b>T. Hirade</b> (JAEA) <b>“TBA”</b>
14:30 – 14:50	<b>Y. Miyake</b> (KEK) “Muon Beams at J-PARC Muon Facility and their application”
14:50 – 15:10	Discussion
15:10 – 15:30	Coffee break
15:30 – 17:30	<b>Poster</b>

## November 9 (Fri.)

9:00 – 11:00	<b>Ultrafast Pulse Radiolysis Systems</b> Discussion Leader: <b>T. Sumiyoshi</b> (Hokkaido Univ.)
9:00 – 9:15	<b>A. Cook</b> (BNL) <b>“TBA”</b>
9:15 – 9:30	<b>Y. Muroya</b> (Tokyo Univ.) <b>“TBA”</b>
9:30 – 9:45	<b>J.L. Marignier</b> (Univ. de Paris-Sud) “Recent developments and research at ELYSE picosecond accelerator at Orsay”
9:45 – 10:00	<b>M. Washio</b> (Waseda Univ.) “Recent Progress of Picosecond RF-Gun System at Waseda University”
10:00 – 10:15	<b>Y. Yoshida</b> (Osaka Univ.) “Attosecond and femtosecond pulse radiolysis by using laser photocathode rf gun linac”
10:15 – 10:35	<b>R. Crowell</b> (ANL) <b>“TBA”</b>
10:35 – 11:00	Discussion
11:00 – 11:20	Coffee break
11:20 – 12:20	<b>Summary Talks</b>

11:20 – 11:50	<b>J. Belloni</b> (Univ. de Paris-Sud)
11:50 – 12:20	<b>M. Inokuti</b> (ANL)
12:20 – 12:30	<b>Closing</b>
	<b>Y. Katsumura</b> (Tokyo Univ.)
12:30 – 13:30	Lunch
13:30	<b>Scientific visit</b> – JPARC and Nuclear Professional School of Tokyo University