Service de Physique de l'Etat Condensé (SPEC)
Département de Recherche sur l'Etat Condensé, les Atomes et les Molécules
Direction des Sciences de la Matière
Commissariat à l'Energie Atomique

Séminaire du SPEC Vendredi 2 mars 2007, 14h15

"Amphi Claude BLOCH", Bâtiment 773
Centre d'Etudes de Saclay, Orme des Merisiers
91191 Gif-sur-Yvette

ATTENTION: heure inhabituelle

Groupe de discussion "Réflexions sur les nanosciences"

Material and Device - Neglected Origins of Nanotechnology

Alfred NORDMANN

(TU Darmstadt, Germany and University of South Carolina, USA)

Herbert Gleiter promoted the development of nanostructured materials on a variety of levels. In 1981 already, he formulated research visions and produced experimental as well as theoretical results. Still he is known only to a small community of materials scientists. That this is so is itself a telling feature of the imagined community of nanoscale research. After establishing the plausibility of the claim that Herbert Gleiter provided a major impetus, a second step will show just how deeply Gleiter shaped (and ceased to influence) the vision of the National Nanotechnology Initiative in the US. Finally, then, the apparent invisibility of Gleiter's importance needs to be understood. This leads to the main question of this investigation. Though materials science research meets even the more stringent definition of nanotechnology, there remains a systematic tension between materials science and the device-centered visions of nanotechnology. Though it turns the tables on the scientific prestige of physics, materials science runs up against the engineering prestige of the machine.

Alexei GRINBAUM tel: 01 6908 9488 email: alexei.grinbaum@cea.fr

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