独立行政法人理化学研究所　仁科加速器研究センター
第42回RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 42nd RIBF Nuclear Physics Seminar

Materials research at GSI

Recent results on nanowires, ion irradiation at high pressure, and bio-experiments with heavy-ion microprobe

Prof. Dr. Reinhard Neumann

(Materials Research Department, GSI, Germany)

GSI materials research activities encompass basic and applied aspects. The presentation gives an overview of the main topics and illustrates them with some recent results. Bismuth and gold nanowires were created by filling etched ion tracks in polymer foils. Studies focused on electrical, optical, and thermal properties of single nanowires. Phase transitions were stimulated in graphite and zircon by simultaneous exposure to high pressure and heavy ions. The heavy-ion microprobe is able to locate single ions of up to 12 MeV/amu, including uranium, with precision 0.5 μm. Irradiation of individual cell nuclei in a cell culture with single ions will be described.

Mar. 16(Fri), 2007　13:30-
Nishina Hall,　RIKEN

The seminar will be given in English.

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