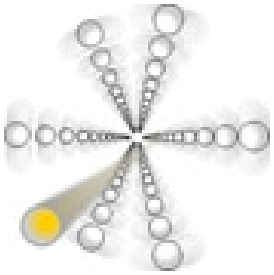

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Observation of Undulator Radiation at Channeling of Electrons in Strained Layer Si-Ge Crystals at MAMI

Thursday, 27 September 2012 09:00 (25 minutes)

Experiments have been performed at the Mainz Microtron MAMI to explore the radiation emission from a 4-period epitaxially grown strained layer Si-Ge undulator with a period length of 9.9 μm. Electron energies between 190 and 855 MeV have been chosen. In comparison with a flat silicon reference crystal, a broad excess yield around the theoretically expected photon energies between 0.036 and 0.637 MeV, respectively, has been observed for channeling at the undulating (110) planes.

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