Radiation from Relativistic Electrons in Periodic Structures "RREPS-23" & Electron, Positron, Neutron and X-ray Scattering under External Influences "Meghri-23"



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Prospects of corundum crystals application as Cherenkov radiators

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Cherenkov radiation is widely used effect, which finds a broad application in the charged particle beam diagnostics. Corundum crystals are prospective radiators for obtaining Cherenkov light. Corundum radiators may significantly change their optical properties during extensive exploitation with particle beams that would influence Cherenkov light intensity. In this report, we experimentally investigated the Cherenkov light from corundum crystals and studied the spectral transmittance of crystals before and after irradiation by electron beams.

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