



Contribution ID: 145

Type: Oral presentation

X-Rays Monochromatic Radiation of the Bunch of Positrons Channeled in Nanotubes

Tuesday, 27 September 2016 15:00 (15 minutes)

The account of polarization of the nanotube medium imposes a limit on the energy of the bunch for the generation of channeling radiation of positrons. The larger the amplitude of the harmonic oscillation of the positron in nanotube, the greater the threshold value of the energy. When the energy of the bunch is equal to the upper threshold, all positrons of bunch contribute to the radiation. As a result, directional monochromatic and sufficiently intense radiations of soft X-ray photons are generated.

Summary

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Session Classification: S1.3: Channeling & Radiations in Crystals