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Multicrystal Microundulator

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Radiation of charged particles passing through a set of equidistant ridges on the surface of a single crystal is analyzed. The ridge thickness is a half of the particle trajectory period at channeling in a thick crystal. Passing through such set of half-wave crystals the particle can move on quasi-undulator trajectories [1]. Properties of radiation emitted by swift positrons from such "multicrystal microundulator"are calculated. Such structure can be created on crystal surface, as in [2].

References
1. S.Vorobiev, V.Kaplin, E.Rozum. Patent SU 876044 A. 1980.
2. V.Kaplin, S.Uglov, V. Zabaev, et al. NIM A 448 (2000) 66.

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