INFLUENCE OF THE ELECTROMAGNETIC SPIN-ORBIT INTERACTION ON THE MOTION OF IONS IN CRYSTALS UNDER PLANAR QUASI-CHANNELING

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Summary

The influence of the electromagnetic spin-orbit interaction on the motion of ions in crystals under the condition of instable trajectories in planar channeling is considered. It has been shown that the spin-orbit interaction can cause the polarization of particles that were scattered at angles close to the angle of mirror reflection from crystal planes and abandoned the crystal. The effect's experimental check scheme is offered. The scheme has been tested and its reason and feasibility have been verified.