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PS3-09 About the Probability of Close Collisions during Stochastic Deflection of Positively and Negatively Charged Particles by a Bent Crystal

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The probability of close interactions of high-energy positively and negatively charged particles with atoms in a bent crystal was considered as a function of the angle between the initial particle momentum and the bending plane. The results of simulation of positively charged particle motion in a bent crystal show the great efficiency of high-energy positively charged particle deflection by a bent crystal due to the stochastic deflection mechanism and strong reduction of the probability of close collisions during the stochastic deflection in comparison to the planar channeling in a bent crystal.

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