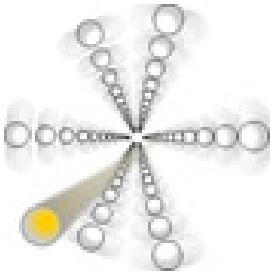

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Generation of Plasmon and Electron Exitations by Quantum Channeled Particle in Crystal

Monday, 24 September 2012 19:31 (1 minute)

A theory of the energy losses for the quantum channeled particle is developed. The probability of generating plasmons in the case of "channel-plasmon"resonance is calculated. The possibility of appearance of the peaks in the curve of the energy loss on the particle energy fixing the distance between the transverse levels of the cross-motion is evaluated. The transition probabilities of the crystal electron subsystem excitation with the change of the quantum levels of the transverse motion are investigated.

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