

Channeling 2018



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Large-Angle Channeling Radiation by Relativistic Muons

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Summary

In this report we investigate large-angle CR in optically transparent crystals by relativistic muons. For CR-photons generated by 2000 MeV (220) channeled muons in a diamond crystal the maximal number of CR-photons results at the energy range $10.6 \cdots 11.2$ eV emitted at polar angle $\sim 73.78^\circ$. This is approximately 20 times greater than the number of Cherenkov photons. Cherenkov angle for photons in this energy range radiated by 2 GeV muons is $\sim 73.44^\circ$.

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