

Radiofrequency stimulated quantum interference on Mössbauer transitions

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Abstract

Redistribution of the elastic and Raman channel intensities in the Mössbauer resonant scattering spectrum can be controlled by the radio frequency (rf) stimulated quantum interference of gamma-transition amplitudes. More general expressions for each channel intensity are written out exactly taking into account the influence of the rf field. Results of calculations for the simple three-level scheme can be easily generalized to the case of ^{57}Fe isotope in magnetic materials. © Nauka/Interperiodica 2007.

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