

MAGNONIC CRYSTALS WITH SAW-TOOTH LIKE MODULATION OF MAGNETIC PARAMETERS

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Magnonic band gap engineering represents an important aspect of modern research in magnonics. In this work, we study the spectrum and frequency dependence of the scattering coefficients of spin waves in magnonic crystals with saw-tooth like modulation of the uniaxial magnetic anisotropy. The corresponding profile can be visualized as a periodic sequence of layers with a linear dependence of the anisotropy strength.

We study the dependence of the magnonic spectrum and reflection coefficient upon the depth and steepness of modulation of the anisotropy and compare the results with those previously obtained for other profiles of the anisotropy modulation, with a particular attention to the size and position of the magnonic band gaps and points of full transmission of spin waves through the magnonic crystal.

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← 13.4 cm →

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9.7 cm