Possible mechanisms of magnon sidebands formation in transition metal compounds

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Abstract

In this short report possible mechanisms of magnon sidebands formation in transition metal compounds are shortly discussed. Besides the well known exchange electric dipole mechanism, suggested by Tanabe, Moriya and Sugano, recently a new the exciton-magnon absorption mechanisms assisted by phonons become actual. Special attention is paid to possible contribution of phonon-assisted electric dipole exchange transition in quasi-one-dimensional antiferromagnet KCUF 3.

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