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标题: Effect of current on magnetization oscillations in the ferromagnet-antiferromagnet junction
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摘要: The effect of spin-polarized current on the steady-state magnetization and oscillations of antiferromagnet magnetization in a ferromagnetic-antiferromagnetic magnetic junction is analyzed. The macrospin approximation is generalized to describe antiferromagnets. The canted configuration of the antiferromagnet and the resultant magnetic moment are produced by the application of an external magnetic field. The resonance frequency, damping, and threshold current density corresponding to the emergence of instability are calculated. The possibility of generating weakly damped magnetization oscillations in the terahertz range is demonstrated. The effect of fluctuations on the canted configuration of the antiferromagnet is discussed.
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