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Title:Observation of the spin-injection terahertz emission in planar ferromagnetic two-layer structures
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Abstract:The spin-injection emission of the system that consists of a nonmagnetic conducting rod and two-layer planar heteroepitaxial structure formed by thin metal and magnetite films is experimentally studied. The electromagnetic emission in the terahertz range is demonstrated for the first time due to the creation of the nonequilibrium population of the spin energy subbands (relatively low current densities of about 10^5 A/cm^2 are needed at room temperature).
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Inspec controlled terms:electromagnetic waves - ferromagnetic materials - magnetic thin films - spin polarised transport
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