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Title:Efficiency of the terahertz spin-injection emitter

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Abstract:The energy efficiency of the spin-injection emitter based on the rod-film ferromagnetic structure with a point contact between the components in the terahertz frequency range is experimentally estimated. The film material substantially affects the efficiency. A concentrator of magnetic flux is proposed for an increase in the efficiency. The experimental estimations allow the quantum yield of the emitter that is greater than unity. This result indicates significant contribution of the stimulated radiative transitions.

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