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Title:Transformation of the polarization of THz waves by their reflection and transmission through a finite layered superconductor

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Abstract:The reflection and transmission of terahertz electromagnetic waves propagating in a waveguide through the sample of a layered superconductor of finite length are studied theoretically. The excitation of the two types of Josephson plasma waves, ordinary and extraordinary, in the sample leads to a partial or a complete transformation of the incident wave polarization. The conditions for the complete transformation of polarization are found.

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