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Title:Observation of flat band for terahertz spoof plasmons in a metallic kagome´ lattice
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Abstract:We study the dispersion relation of a metamaterial composed of metallic disks and bars arranged to have kagome´ symmetry and find that a plasmonic flat band is formed by the topological nature of the kagome´ lattice. To confirm the flat-band formation, we fabricate the metamaterial and make transmission measurements in the terahertz regime. Two bands formed by transmission minima that depend on the polarization of the incident terahertz beams are observed. One of the bands corresponds to the flat band, as confirmed by the fact that the resonant frequency is almost independent of the incident angle.
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