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标题: Observation of flat band for terahertz spoof plasmons in a metallic kagome lattice

作者: Nakata, Y (Nakata, Yosuke); Okada, T (Okada, Takanori); Nakanishi, T (Nakanishi, Toshihiro); Kitano, M (Kitano, Masao)

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摘要: 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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地址: [Nakata, Yosuke; Nakanishi, Toshihiro; Kitano, Masao] Kyoto Univ, Grad Sch Engn, Kyoto 6158510, Japan

[Okada, Takanori] Kyoto Univ, Pioneering Res Unit Next Generat, Kyoto 6110011, Japan

通讯作者地址: Nakata, Y (通讯作者), Kyoto Univ, Grad Sch Engn, Kyoto 6158510, Japan

电子邮件地址: nakata@giga.kuee.kyoto-u.ac.jp; kitano@kuee.kyoto-u.ac.jp

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