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Title:Broadband terahertz plasmonic response of touching InSb disks

Authors:Hanham, S.M. (1); Fernandez-Dominguez, A.I. (1); Teng, J.H. (3); Ang, S.S. (3); Lim, K.P. (4); Yoon, S.F. (4); Ngo, C.Y. (3); Klein, N. (2); Pendry, J.B. (1); Maier, S.A. (1)

Author affiliation:(1) Dept. of Physics, Imperial College London, South Kensington, London, SW7 2AZ, United Kingdom; (2) Dept. of Materials, Imperial College London, South Kensington, London, SW7 2AZ, United Kingdom; (3) Institute of Materials Research and Engineering, ASTAR, 3 Research Link, Singapore 117602, Singapore; (4) Sch. of Electrical and Electronic Engineering, Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798, Singapore

Corresponding author:Hanham, S.M.(s.hanham@imperial.ac.uk)

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Abstract:The plasmonic behavior of dimers of touching semiconductor disks is studied experimentally in the difficult-to-realize regime where the disks are only marginally overlapping. Previous theoretical studies have shown that this geometry exhibits a highly efficient broadband response that may be very promising for light harvesting and sensing applications. By taking advantage of the plasmonic character of InSb in the terahertz regime, we experimentally confirm this broadband response and describe the associated strong field enhancement and sub-micrometer field confinement between the disks. © 2012 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

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