

Abstract Submitted
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Study of plasmonic crystals by Plasmon Tomography far-field Superlenses¹ WILLIS AGUTU, Physics, CHARLES REGAN, Electrical and Computer Engineering, ARQUIMEDES COLUMBIE, University College, ROBIER RODRIGUEZ, Physics, AYRTON BERNUSSI, Electrical & Computer Engineering and Nano Tech Center., LUIS DE-PERALTA, Physics, PHYSICS COLLABORATION, DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING COLLABORATION, NANO TECH CENTER COLLABORATION, UNIVERSITY COLLEGE COLLABORATION — We explore the use of surface plasmon polariton (SPP) tomography far-field superlenses for quantitative characterization of plasmonic crystals. Useful semi-empirical relations are obtained from the quantitative information extracted from the FP images. In addition, based on the comparison of the FP images corresponding to plasmonic crystals with holes of different sizes, we present a comprehensive discussion about the formation of directional stop-bands in the fabricated plasmonic crystals.

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