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Publication date: 2017

Document Version
Publisher's PDF, also known as Version of record

Link back to DTU Orbit

Citation (APA):
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Presenting Author Zhongli Wang
Co-Authors Tao Li, Kristoffer Almdal, N. Asger Mortensen, Sanshui Xiao, Sokol Ndoni

Organization, Address, City, Country
1 Department of Micro- and Nanotechnology, Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark.
2 Center for Nanostructured Graphene (CNG), Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark.
3 Department of Photonics Engineering, Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark.

Contact@E-mail zhong@nanotech.dtu.dk, sond@nanotech.dtu.dk

Abstract (Century Gothic 11)

Due to strong mode-confinement, long propagation-distance, and unique tunability, graphene plasmons have been widely explored in the mid-infrared and terahertz windows. However, it remains a big challenge to push graphene plasmons to shorter wavelengths in order to integrate graphene plasmon concepts with existing mature technologies in the near-infrared region. We investigate localized graphene plasmons supported by graphene nanodisks and experimentally demonstrated graphene plasmon working at 2 μm with the aid of a fully scalable block copolymer self-assembly method. Our results show a promising way to promote graphene plasmons for both fundamental studies and potential applications in the near-infrared window.

References


Graphene2017 March 28-31, 2017 Barcelona (Spain)