

A comparative study of resonant effects in two-dimensional active coated nano-particles of circular, polygonal, and elliptical shapes - DTU Orbit (08/11/2017)

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The area of passive and active nano-antennas has recently attracted great attention due to their potentials in a large variety of applications. Numerous designs were proposed; both the traditional ones, inspired by their microwave counterparts, as well as those making extensive use of metamaterial and plasmonic structures. In regards to the latter, extensive analytical and numerical investigations were conducted on the theoretical designs of nano-antennas by use of passive and active coated nano-particles (CNPs) of various shapes and excitations. It was demonstrated that specifically designed active CNPs possess highly resonant properties making them useful candidates for a variety of nano-antenna designs.

General information

State: Published

Organisations: Department of Electrical Engineering, Electromagnetic Systems, Technical University of Denmark, University of Arizona

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Number of pages: 1

Publication date: 2015

Event: Paper presented at 1st URSI Atlantic Radio Science Conference , Gran Canaria, Spain.

Main Research Area: Technical/natural sciences

Communication, Networking and Broadcast Technologies, Fields, Waves and Electromagnetics, Photonics and Electrooptics

DOIs:

10.1109/USNC-URSI.2015.7303630

Source: FindIt

Source-ID: 276546101

Publication: Research - peer-review › Paper – Annual report year: 2015