Radiation force of a Gaussian beam on a chiral plasmonic nanoparticle

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Using electromagnetic waves [1-7] to push an object has attracted considerable attention due to its potential applications in optical capture, sorting various biological cells, etc. The plasmonic nanoparticle in this paper is composed of a chiral sphere and a thin metallic shell. A larger radiation force is exerted on the plasmonic nanoparticle than that of a pure chiral sphere. The influence of the chirality parameter of the core on the radiation force under the Gaussian beam incidence is numerically analyzed.

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References