



| | |
|---|---|
| Title: | Reversal in axial symmetry of nonlinear optical trapping potential for metallic nanoparticles: generalized Lorenz-Mie theory |
| Authors: | Yadav, Sumit (/jspui/browse?type=author&value=Yadav%2C+Sumit)<br>Devi, A. (/jspui/browse?type=author&value=Devi%2C+A.)<br>De, A.K. (/jspui/browse?type=author&value=De%2C+A.K.) |
| Keywords: | Nanoparticles<br>Particles<br>Nonlinear optics<br>Silver |
| Issue Date: | 2020 |
| Publisher: | SPIE |
| Citation: | Proceedings of SPIE - The International Society for Optical Engineering 11463,114632C |
| Abstract: | Recently, the effect of optical nonlinearity in laser trapping has been investigated under pulsed excitation, and it was observed that the inclusion of nonlinearity significantly modulates trapping potential for metallic nanoparticles using dipole approximation. In this paper, we present theoretical studies on nonlinear laser trapping for silver nanoparticles using generalized Lorenz-Mie theory. We observe a reversal in the direction of asymmetry of potential well and splitting of the potential well due to nonlinear effects which is further modulated with an increase in laser power. |
| URI: | https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11463/2570664/Reversal-in-axial-symmetry-of-nonlinear-optical-trapping-potential-for/10.1117/12.2570664.short?SSO=1 (https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11463/2570664/Reversal-in-axial-symmetry-of-nonlinear-optical-trapping-potential-for/10.1117/12.2570664.short?SSO=1)<br>http://hdl.handle.net/123456789/3438 (http://hdl.handle.net/123456789/3438) |
| Appears in Collections: | Research Articles (/jspui/handle/123456789/9) |

Files in This Item:

| File | Description | Size | Format | |
|---|---|---|---|---|
| Need to add pdf.odt (/jspui/bitstream/123456789/3438/1/Need%20to%20add%20pdf.odt) | | 8.63 kB | OpenDocument Text | View/Open (/jspui/bitstream/12345 |

Show full item record (/jspui/handle/123456789/3438?mode=full)
(/jspui/handle/123456789/3438/statistics)