

NONLINEAR PLASMA DIPOLE OSCILLATIONS
IN SPHEROIDAL METAL NANOPARTICLES

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S u m m a r y

The theory of nonlinear dipole plasma oscillations generated in a metal spheroidal nanoparticle by a laser-wave field has been developed. Approximate (to an accuracy of the cubic term) analytical expressions for the nanoparticle dipole moment have been obtained in the case of the laser field oriented along the spheroid rotation axis.