Abstract Submitted
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Laser Manipulation of Nanostructures[1] DINKO CHAKAROV, Chalmers University of Technology — This work describes a new method for controlling the pattern into which nanoparticles in a disordered metal-nanoparticle layer organize themselves by a single light pulse. [1]. The phenomena behind formation of one- and two-dimensional grating patterns are attributed to interference effects between the incident light and waveguided modes. Such self-patterning behavior could be useful for the fabrication of complex nanostructures and advanced photonic devices.

[1]. L. Eurenius, C. Hägglund, E. Olsson, B. Kasemo and D. Chakarov, "Grating formation by metal nanoparticle-mediated coupling of light into waveguided modes," *Nature Photon.* **2,** 360 (2008).

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