Abstract Submitted
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Addressed Grids for Single-Nanoparticle Studies[1] W.D. TENNYSON, C.E. ALLEN, D.S. HARTNETT, M.E. CURTIS, A.R. DEDIGAMA, D.J. WASIELEWSKI, M.D. MCCUTCHEN, D.H. DAHANAYAKA, M.B. JOHNSON, L.A. BUMM, Center for Semiconductor Physics in Nanostructure, Homer L. Dodge Department of Physics and Astronomy, University of Oklahoma, Norman, OK 73019, USA — We have developed a grid structure with a simple and robust address system to assist in locating and relocating individual substrate-supported nanoparticles. We demonstrate application of our addressed grids for facile characterization of the SAME nanoparticles in multiple instruments. Our grids can be prepared on a variety of substrates using lift-off photolithography. We will show addressed grids of Cr/Au on silicon, fused silica, and ITO coated glass as well as application to multiple measurements of the same nanoparticles by scanning electron microscopy, optical microscopy, atomic force microscopy, and single nanoparticle spectroscopy.

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