

Deformable reflecting mirrors from metallic surface layers deposited on liquids

The invention relates to a new type of reflective optical element made of a reflective metallic layer comprising reflecting nanoparticles deposited on a liquid surface. Metallic or non-metallic nanometer-sized particles are coated with a ligand. The coated particles are concentrated and deposited on the surface of a liquid where they self-assemble to give optical-quality high-reflectivity optical surfaces. Coating liquid surfaces with reflective layers allows one to make inexpensive and versatile high-quality mirrors. The surfaces of liquids can be shaped by a variety of techniques.
