Evaporation-Induced Self-Assembly of Nanoparticles from a Sphere-on-Flat Geometry

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Figure S1. Optical micrographs of control experiments: a film formed by allowing the 0.25 mg ml\(^{-1}\) CdSe/ZnS toluene solution (\(D = 5.5\) nm) to evaporate on a single surface (i.e., a Si substrate only) with a cover (a) and without a cover (b). Scale bar = 100 \(\mu\)m.
Figure S2. Optical micrograph of a drying film obtained from 0.1 mg ml$^{-1}$ TOPO functionalized CdSe/ZnS toluene solution ($D = 5.5$ nm) mixed with excessive 0.8 mg ml$^{-1}$ TOPO, allowed to evaporate in the sphere-on-Si geometry. Scale bar = 100 µm.
Figure S3. SEM images of ring patterns produced from the drying of the 0.5 mg ml\(^{-1}\) CdTe nanorod toluene solution in the sphere-on-flat geometry. \(\lambda_{C-C} = 4\ \mu m, w = 1.5\ \mu m,\) and \(h = 29.2\ nm.\) (a) stripes appearance locally, (b) a large view of the rings (Inset: TEM image of the CdTe nanorods prepared by drop-casting the CdTe toluene solution on Cu grid (i.e., on single surface). Scale bar = 100 nm). The scale bars are 5 \(\mu m\) in (a) and 50 \(\mu m\) in (b). The arrow denotes the direction of the motion of the solution front.
Figure S4. **Right:** Digital image of entire concentric ring patterns of Au nanoparticles on the spherical lens formed by the deposition of nanoparticles from the 0.5 mg ml⁻¹ toluene solution in the sphere-on-Si geometry. Scale bar = 2 mm. \( \lambda_{c-c} = 2.5 \, \mu m, \, w = 1 \, \mu m, \, h = 55 \, \text{nm} \). **Left:** The close-up of the red squared region marked on the right panel. Scale bar = 50 \( \mu m \). The arrow indicates the direction of the motion of the solution front.