

Efficient Hybrid Solar Cells from Spherical CdSe Nanoparticles and a Conjugated Polymer

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We report on solution-processed hybrid solar cells consisting of a nanocrystalline inorganic semiconductor, CdSe and a conjugated polymer (P3HT). Synthesis of quantized CdSe nanoparticles was performed by a colloidal route where the particles surface was shielded by organic surfactant (TOPO). In first attempts TOPO coated CdSe nanoparticles were mixed with P3HT to form a single active layer. We also investigated pyridine treated CdSe nanoparticles followed by mixing with P3HT to form single layer.