

Evolution of CdTe Nanoparticles into Nanowires

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We demonstrated how CdTe nanoparticles (NPs) can synthesize into straight nanowires (NWs) via self-assembly. Under dark condition, self-assembly of CdTe nanoparticles led to straight nanowires. Observation of the samples under dark condition with SEM revealed an interesting evolution of shapes of the multiparticle assemblies. Small agglomerates appeared the starting point of the NP-to-NW transition in 1day after removal of excess TGA. 2days later, they transformed into straight NW bundles. Finally the bunch separated to individual NWs after 3days. The reaction in the dark resulted in distinct long and straight wires.