

Evolution of CdTe Nanoparticles into Twisted-Nanoribbons by Light-Control

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CdTe nanowires were successfully synthesized from individual nanoparticles via self-assembly and their structure was twisted when they were exposed to light. The length of nanowires ranged from 1 to 20 μm . Unusual shapes such as broom, dragonfly, and ribbon bunches observed in the intermediate stages finally turned into twisted ribbons. Transmission electron microscopy (TEM) and scanning electron microscopy (SEM) were performed to characterize the synthesized nanostructures. The modulation in the pitch length for the twisted ribbons under various light intensities could create a new approach in the synthesis of nanostructures.