

Solution Processed CdS Nanoparticle/ZnO Nanowire Heterostructure Arrays

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We researched an ammonia aqueous solution method for growing well-aligned ZnO nanowire arrays. Uniform ZnO nanowire arrays were grown on the seed layer coated silicon substrates in aqueous solution containing zinc nitrate and ammonia water by hydrothermal process. We also prepared ZnO nanowire heterostructure arrays, CdS nanoparticles/ZnO nanowire arrays using solution-based deposition technique. Fabricated ZnO nanowire heterostructure arrays were characterized using SEM, TEM, XRD. Photocatalytic and photoelectrochemical property of the ZnO nanowire heterostructure arrays were tested.