

Te이 과량 포함된 Sb_xTe_{1-x} 나노와이어 및 나노튜브의 합성 및 분석

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Synthesis and Characterization of Te-rich Sb_xTe_{1-x} Nanowires and Nanotubes

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Abstract : One dimensional (1D) nanostructures, including nanowires, nanorods, nanobelts, and nanotubes, have been the focus of current research on nanotechnology because of their fundamental significance in chemistry, physics, materials science and engineering, and potential applications in nanoelectronics. We have synthesized Te-rich Sb_xTe_{1-x} nanowires and nanotubes via thermal evaporation method under vapor-solid mechanism. The physical morphology and chemical composition of the fabricated nanowires and nanotubes were investigated by scanning electron microscopy (SEM), transmission electron microscopy (TEM), and energy dispersive X-ray spectroscopy (EDX).

Key Words : Te-rich Sb_xTe_{1-x} , nanowires, nanotubes, vapor-solid mechanism