

Effects of amine's chains on ZnO nanostructures obtained by hydrothermal method

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Abstract:

ZnO nanorods and microrods were obtained by hydrothermal synthesis using different long chain amin as a precursor at temperature greater than 100°C. During this synthesis procedure, the decomposition of amine provided OH⁻ ions allowing the precipitation of ZnO nanostructures in low basic conditions. The obtained ZnO nanosctructure was characterized by x-ray diffraction (XRD) and scanning electron microscope (SEM). The growth process permits to explain the formation of the ZnO nano and microrods.

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