

Growth of ZnO nano-structures in aqueous solutions

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Chemical solution approach to synthesize nano-structures are attractive because of possibilities of low temperature growth and easy scale-up. In particular, the method is very useful to apply nano-structure syntheses on various substrates having low melting point. In this study, ZnO nano-structures have been synthesized on Si wafers using aqueous solution of $\text{Zn}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ and HMT(Hexamethylenetetramine). Depending on the synthesized temperature, molar ratio, reaction time and temperature, and surface treatment, the properties of ZnO nano-structures were characterized.