

## **FORMATION OF ZINC MICROSPHERES BY CHEMICAL VAPOR DEPOSITIONS (CVD)**

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### **ABSTRACT**

Zn microspheres have been prepared by heating a mixture of ZnO/graphite powders using the chemical vapor deposition (CVD) and vapor transport on Si (1 0 0) substrates. The synthesis process of the Zn microspheres was accomplished within a fast reaction time without catalyst. Since the oxidation process required for the synthesis of zinc nanomaterials not required, reducing the number of experimental processes than conventional synthetic methods. Good crystalline Zn microspheres was analyzed using a variety of surface analysis apparatus. We also proposed the synthesis mechanism of Zn microspheres.

**Keywords:** Zn microspheres, Chemical Vapor Deposition (CVD), Structural and optical properties, Surface analysis.