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Short Communication Open Access

Pharmaceutical and Analytical Chemistry Study of Cadmium Oxide (CdO) Nanoparticles Synthesis Methods and Properties as Anti-Cancer Drug and its Effect on Human Cancer Cells

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In this short communication, we present Cadmium Oxide (CdO) nanoparticles synthesis methods and properties. We also study the applications of Cadmium Oxide (CdO) nanoparticles in some areas such as pharmaceutical and analytical chemistry as anti-tumor drug. In addition, we investigate effect of Cadmium Oxide (CdO) nanoparticles as anti-cancer drug on human cancer cells which have been obtained from sampling [1-25].

Several methods are variable for production of Cadmium Oxide (CdO) nanoparticles. Conventional techniques of particle nanosize reduction include milling grinding jet milling crushing chemical process and air micronization. There are several drawbacks to these techniques. Furthermore, Supercritical Fluid (SCF) technology offers tremendous potential, as it safe, environmentally, friendly and economical. One of the advantages of this technique is that we do not use organic solvents. It has applications in the food industry, separations, chemical processing, pharmaceutical chemistry, analytical chemistry, biopolymers and so on. The thermodynamic and spectroscopic properties such as total entropy and enthalpy in Supercritical Fluid (SCF) were calculated.

On the other hand, the processes that will be compared are the Supercritical Anti-Solvent (SAS), the Rapid Expansion of Supercritical Solutions (RESS), the Depressurization of an Expanded Liquid Organic Solution (DELOS) and the Particles from Gas Saturated Solutions (PGSS). Moreover, the final aim of this work and research is however to consider the Supercritical Anti-Solvent (SAS) Cadmium Oxide (CdO) nanoparticles production process feasibility. Also, study the applicability of the Variable Volume Review Cell (VVV–Cell) to find appropriate combination of the solvent and the gaseous anti-solvent for a given solid.

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