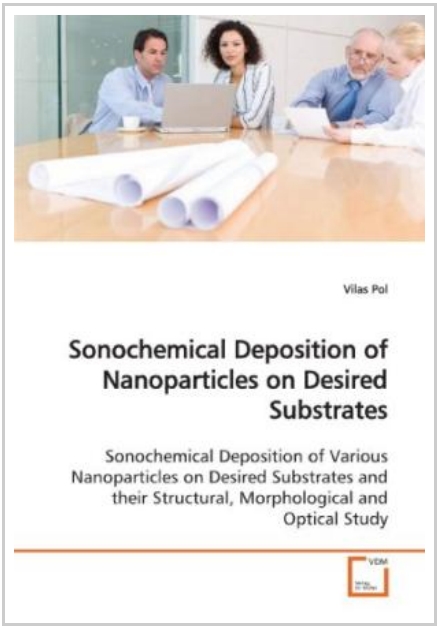

Sonochemical Deposition of Nanoparticles on Desired Substrates

By Pol, Vilas

Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | Sonochemical Deposition of Various Nanoparticles on Desired Substrates and their Structural, Morphological and Optical Study | Sonochemistry is the research area in which molecules undergo chemical reaction due to the application of powerful ultrasound radiation (20 KHz to 1 MHz). The employed substrates were silica spheres, carbon spherules, carbon nanotubes, LiMn2O4 spinel and titania particles, provides an alternative means for trapping the nanoclusters on thier surfaces. Cavity collapse near an extended solid surface becomes non-spherical, drives high-speed jets of liquid into the surface, and creates shockwave damage to the surface. The nanoparticle-substrate collisions are capable of inducing striking changes in surface morphology, composition, and reactivity. The coating nanoparticles were metals (e.g. Au, Ag, Sn, etc.), oxides (e.g. MgO), rare earth oxides (e.g. Eu2O3), and highly magnetic (e.g. air-stable Fe), confirming that Sonochemistry can be a general method for the uniform deposition of desired nanomaterials. The formed core-shell materials are characterized by advanced morphological, structural, compositional techniques and the optical and magnetic properties are studied. | Format: Paperback | Language/Sprache: english | 84 pp.

Reviews

Extensive information for book fans. It is writter in basic words and never hard to understand. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- ***Otis Wisoky***

This publication is great. It is full of wisdom and knowledge You will not really feel monotony at at any time of the time (that's what catalogs are for relating to when you ask me).

-- ***Dr. Everett Dicki DDS***