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# Book Details

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| **Book Title** | GREEN SYNTHESIS OF CdO NANOPARTICLES |
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| **Manuscript Language** | ENGLISH |
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* 5"x8"
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**Cover details**

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| **Synopsis** - a**bout 500 words (to enable the cover designer to understand the theme of the book and would not be printed on the book)**  **Chapter I** consists of the fundamentals of nanotechnology, properties of semiconductor oxide materials and its applications.  **Chapter II** deals with the literature survey of different preparation methods of Cadmium Oxide nanoparticles. Also, the objectives and the significant of the present method of synthesis are explained.  **Chapter III** presents the green synthesis procedure of CdO nanoparticles. The characterization techniques like XRD, UV-DRS, PL, FT-IR, FE-SEM, EDAX, HR-TEM are used to analyze the bare and different extract mediated synthesis of CdO nanoparticles. The procedures to perform the photocatalytic, antibacterial and antifungal activities are discussed in this chapter itself.  **Chapter IV** focuses thepreparation of CdO nanoparticles under four different leaves of extract such as without extract by combustion method (**Part A)**, *hibiscus rosa sinensis* leaf extract (**Part B)** *Aloe Barbadensis Miller* extract a **(Part C)** and *Azadirachta* *indica* (neem) leaf extract (**Part D)**. The significant change in particle size, morphology and optical properties are analyzed.  **Chapter V** presents the preparation of CdO nanoparticles under three parts from root flowers such as *Dalia* flower extract (**Part A),** *Polianthes tuberosa*extract **(Part B)** and *clitoria ternatea* flower extract (**Part C)**. The influences on extracts on morphological changes are also discussed in this chapter.  **Chapter VI** contains the preparation of CdO nanoparticles under three parts from vegetables such as*solanum tuberosum* vegetable extract (**Part A)**, *sechium edule* vegetable extract (**Part B)** andthe *Abelmoschus esculentus* extract was found to influence more on morphological change and possessed fine crystallinity, uniform distribution, less agglomeration, clear tetrahedral shape. This formation reveals that the 30 ml of the *Abelmoschus esculentus* extract was suitable as a reducing agent. The XRD pattern confirms the cubic structure with average particle size of 89 nm to 18 nm **(Part C)**.  **Chapter VII** contains the preparation of CdO nanoparticles under three parts from natural flowers such as *hibiscus rosa sinensis* flower extract (**Part** A), *nerium-oleander* flower extract (**Part** B) and *jasminum sambac* flower extract (**Part C)**. The influence of extracts on particle size and morphology are discussed.  **Chapter VIII** deals with role ofchemical surfactants like n-hepane, poly imide, SDS, PVB and PVA on morphology of CdO nanoparticles. The certain observed significant results due to influence of green extract samples are compared with the chemical surfactant based samples and it discussion in conclusion part of this thesis.  **Chapter IX** deals with the application part like photocatalytic activity of methylene blue under solar irradiation. Also this chapter consists of antibacterial and fungal activity on *Staphylococcus aureus, Escherichia coli* andantifungal activity on *Candida albicans* and *Aspergillus niger* under the zone inhabitation of CdO nanoparticles.  **Chapter X** focuses the summary of results and conclusion of the thesis. |
| **Blurb- about the book(a short description of the book to be printed on the back of the cover.)**  **No NEED** |
| **Author Bio - about 200 words(a short description about you which will be printed on the back cover of the book.)**  **NO NEED** |