



## Synthesis and characterization of nanocrystalline zinc titanates

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Sol-gel synthesis of ternary Zn-(x)-Ti-(y)-O-(z) nanostructures for solar cell technologies and photonics | The great attention of scientists has been paid to a family of zinc titanates for their phenomenal photo-chemical properties. They have been widely investigated as photo-active materials for solar cells, novel matrixes for active optical waveguides, lasers and microwave generators. However, advanced applications bring high demands to structural and chemical properties of employed materials. The book introduces versatile sol-gel routes leading to the nanocrystalline ternary phases. The scope lies in the material processing allowing the preparation of nanocrystalline powders and thin films of the superior optical quality with tailored properties. The book brings fundamental knowledge about the nucleation and crystallization processes leading to the formation of pure or doped nanocrystals from amorphous xerogels. The structural data of prepared nanomaterials are related to their electro-optical properties. The facile colloidal synthesis and the comprehensive overview of a number of various characterization techniques make the book invaluable for engineers, scientist and students working in the field of nanocrystalline materials and thin films. | Format: Paperback | Language/Sprache: english | 165 gr | 220x150x6 mm | 112 pp.



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