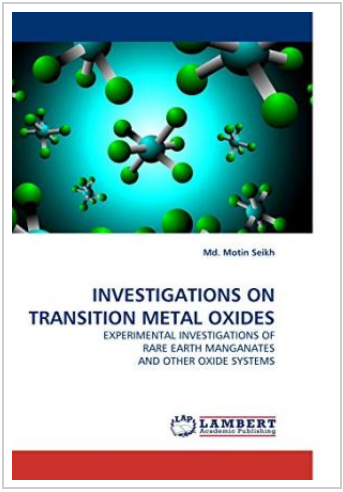

INVESTIGATIONS ON TRANSITION METAL OXIDES

By Seikh, Md. Motin

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | EXPERIMENTAL INVESTIGATIONS OF RARE EARTH MANGANATES AND OTHER OXIDE SYSTEMS | The coupled dynamics of charge, spin, orbital and lattice degrees of freedom, related to the emergence of complex phases in transition metal oxides has been a long standing research topic among condensed matter community. This monograph largely emphasis on the experimental investigations of several oxide systems by employing a number of techniques. The synthetic methods include conventional solid state route, single crystal growth using floating zone melting technique and thin films. The various aspects of investigations include electronic and magnetic properties, charge-ordering and electronic phase segregation in rare earth manganites, spin- state transitions in rare earth cobaltites and insulator-metal transitions in magnetite (Fe3O4) and karelianite (V2O3). Besides the measurements of magnetoelectric properties, several spectroscopic techniques are employed to study the various problems. The LS IS HS spin-state transition in cobaltite is explored using infrared and Raman spectroscopy. Brillouin scattering has been successfully utilized to emphasize role of low energy excitations in the strongly correlated electron systems | Format: Paperback | Language/Sprache: english | 404 gr | 220x150x15 mm | 292 pp.

Reviews

Very beneficial to all of class of people. I am quite late in start reading this one, but better then never. You may like just how the writer create this publication.

-- ***Audra Klocko PhD***

Thorough information! Its this type of great go through. It is amongst the most incredible publication i actually have read through. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- ***Germaine Welch***