Special Issue

Transparent Conducting and Semiconducting Oxides

Message from the Guest Editor

Transparent conducting and semiconducting oxides (TCO's and TSO's) have emerged in the last ten years as materials with an outstanding and wide range of properties and possible new applications. Their basic physics however is still under debate. Especially the doping mechanism and the search for the dominant donor are still ongoing. A related question is, why they occur preferentially as n-type materials with p-type doping being hard to achieve.

Progress in the growth of large single crystals and the growth of high quality thin films by different methods have initiated a billion Dollar market. Furthermore a wealth of studies on potential further applications like UV blind photodetectors and n-n type heterojunctions for transparent electronics demonstrate the high potential and further prospects.

Researchers are invited to contribute to the Special Issue on transparent conducting oxides which is intended to serve as a unique multidisciplinary forum covering broad aspects of science, technology and the application of films and single crystals.

Guest Editor

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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