DESCRIPTION

Edited by well-known pioneers in the field, this handbook and ready reference provides a comprehensive overview of transparent conductive materials with a strong application focus.

Following an introduction to the materials and recent developments, subsequent chapters discuss the synthesis and characterization as well as the deposition techniques that are commonly used for energy harvesting and light emitting applications. Finally, the book concludes with a look at future technological advances.

All-encompassing and up-to-date, this interdisciplinary text runs the gamut from chemistry and materials science to engineering, from academia to industry, and from fundamental challenges to readily available applications.

ABOUT THE AUTHOR

David Levy is research professor and head of the Sol-Gel Group at the Materials Science Institute of Madrid (ICMM) of the Consejo Superior de Investigaciones Científicas. His research interests are optical materials, liquid crystal materials, Sol-Gel processing and their applications. During his time at The Hebrew University of Jerusalem David Levy pioneered the sol-gel process for the preparation of organically doped silica-gel glasses. He has more than 130 publications and a number of patents to his name and has received numerous prizes in recognition of his work on sol-gel materials, including the First Ulrich Prize and the nomination to King Juan Carlos-I research award. David Levy also headed the LINES of the National Institute of Aerospace
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Erick Castellón is professor and researcher in physical and materials chemistry at School of Chemistry and Centre for Materials Science and Engineering (CICIMA), University of Costa Rica. He obtained his PhD in 2011 at the Autonomous University of Madrid, Spain, performing his research in the Institute of Materials Science in Madrid under the advice of David Levy and Marcos Zayat. His main research interests include chemistry of materials with photonic applications, liquid crystals and porous materials with emphasis on hybrid organic-inorganic materials obtained by the sol-gel technique.

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