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Nota di contenuto	1. Introduction to scintillators / Martin Nikl and Valentin V. Laguta -- 2. Nanocomposite scintillators / Markus P. Hehlen, Nickolaus A. Smith, Michael W. Blair, Andy Li, Sy Stange, Robert D. Gilbertson, Edward A. McKigney, and Ross E. Muenchausen -- 3. Glass-ceramic scintillator / Jacqueline A. Johnson, Russell L. Leonard, Carlos Alvarez, Brooke Barta, and Stefan Schweizer -- 4. Transparent high-density oxide ceramics prepared by spark plasma sintering / Takashi Goto, Akihiko Ito, Akira Yoshikawa, Shunsuke Kurosawa, and Jan Pejchal -- 5. LPE-grown thin-film scintillators -- 6. Luminescence of Pb- and Bi-related centers in aluminum garnet, perovskite, and orthosilicate single-crystalline films / Svetlana Zazubovich, Aleksei Krasnikov, Yuriy Zorenko, Vitali Gorbenko, Vladimir Babin, Eva Mihokova, and Martin Nikl -- 7. ZnO-based phosphors and scintillators : preparation, characterization, and performance / Daniel Nizansky, Jakub Ruicka, Alena Beitlerova, Jindich Houvicka, Petr Horodysky, Vaclav Tyrpekl, Ivo Jakubec, Akira Yoshikawa, and Martin Nikl.
Sommario/riassunto	The literature so far has reviewed only single-crystal and, up to some

extent, optical ceramic scintillators. This book introduces and describes in detail the research and development in thin film scintillators, glass ceramics, as well as nanocomposite and optical ceramics prepared by spark plasma sintering. It also features example of an in-depth study of a ZnO-based powder phosphor material. Both technology description and various characterization aspects are provided together with application hints. No other book has been published so far that includes and reviews the scintillator materials covered in this book with their specific technologies. Moreover, technological description is merged with detailed characterization, and the application potential is discussed as well. This book is intended for a wide audience, including postgraduate and PhD students and scientists working in the field of scintillators and phosphors. The extended introductory text, which has a textbook character, will be of immense benefit to students and non-specialists, too.

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