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Nota di contenuto	Laser-induced damage phenomena in optics: an overview / M.J. Soileau -- Laser-induced damage (LID) by thermal effects / Roger M. Wood -- Defect-induced damage / Semyon Papernov -- Self-focusing and nonlinear effects / Vitaly Gruzdev -- Femtosecond laser-induced damage in dielectric materials / Luke A. Emmert and Wolfgang Rudolph -- Measurement and detection of laser-induced damage / Jianda Shao -- Statistics of laser damage threshold measurements / Jonathan Arenberg -- Measurement of light scattering, transmittance, and reflectance / Sven Schroder and Angela Duparre -- Quartz and glasses / Laurent Lameignere -- Crystalline materials for UV-applications / Wolfgang Triebel and Christian Muhlig -- Materials for lasers:

frequency conversion, Q-switching, and active materials / Anne Hildenbrand and Frank R. Wagner -- Surface manufacturing and treatment / Jerome Neauport and Philippe Cormont -- Introduction to optical coatings and thin film production / Angus H. Macleod -- High-power coatings for NIR lasers / Christopher J. Stolz -- Coatings for FS-lasers / Marco Jupe and Detlev Ristau -- Spaceborn applications / Wolfgang Riede and Denny Wernham -- Lithography in the deep ultraviolet and extreme ultraviolet / Klaus R. Mann -- Free electron lasers / Michelle Shinn -- The high-energy petawatt laser phelix and its high-power optics / Stefan Borneis.

Sommario/riassunto

Dedicated to users and developers of high-powered systems, Laser-Induced Damage in Optical Materials focuses on the research field of laser-induced damage and explores the significant and steady growth of applications for high-power lasers in the academic, industrial, and military arenas. Written by renowned experts in the field, this book concentrates on the major topics of laser-induced damage in optical materials and most specifically addresses research in laser damage that occurs in the bulk and on the surface or the coating of optical components. It considers key issues in the field of hi
