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Nota di contenuto	CRYSTALS IN GLASS; CONTENTS; Foreword; Introduction: 36 Years of Research and Discoveries about Glass Crystallization; Glass Myth Shattered (Science Now, May 16, 1998); Acknowledgments; Letter from S. D. Stookey - The Inventor of Glass-ceramics; Crystals in Glass - A Celebration of Science and Art; Internal Nucleation in Glasses; Lithium Disilicate Crystals in an Isochemical Glass; Spherulitic Crystals in a Stoichiometric Barium Disilicate Glass; Internal Crystallization in Ti-cordierite Glass; Papaya-seed-like Nanocrystals in Fresnoite Glass; Lithium Diborate Crystals in an Isochemical Glass Internal Crystal in a Diopside Glass Lithium Niobium Disilicate (Double) Crystals in a Nonstoichiometric Glass; Crystals in Li ₂ O-Doped Soda-lime-silica Glasses; Textured Worm-like Crystals in a Bioactive Glass Fiber; Liquid-liquid Phase Separation and Crystallization in Photo-thermo-refractive Glass; Star-like Crystals in the Volume of PTR Glass; Cristobalite Crystals in PTR Glass; Surface Layer and Internal Crystallization in PTR Glass; The Courtyard Effect in Stoichiometric Soda-lime-silica Glass; The Courtyard Effect in Stoichiometric Soda-

lime-silica Glass

The Courtyard Effect-LS Crystals in a Eutectic Glass Hematite Crystals in Soda-lime-silica Glass; Ionic Conducting Glass-ceramics; Surface Nucleation on Glasses; Surface Crystallization of Lithium Diborate Glass; Cordierite Crystal on the Surface of a Cordierite Glass; Surface Nucleation on Cordierite Glass; Nucleation on Scratches, Cracks, and Bubbles; Crystals on Bubble Surfaces in a Diopside Glass; Surface Crystallization on a Calcium Phosphate Glass; Surface Crystallization on Ca-rich Diopside Glass; Surface Crystallization on Ca-rich Diopside Glass

Wollastonite Needles in a Commercial Window (Soda-lime-silica) Glass Needle-like Crystals on CaO-Li₂O-SiO₂ Glass; "Onion-rings" 1Na₂O. 2CaO.3SiO₂ Crystals on the Surface an Isochemical Glass; Laser-induced Surface Crystallization of Sm₂O₃-Bi₂O₃-B₂O₃ Glass; Viscous Sintering with Concurrent Crystallization; Sintering with Concurrent Surface Crystallization of Diopside Glass Spheres; Sintering with Concurrent Crystallization of Two Diopside Glass Spheres; Sintering and Surface Crystallization of Spherical Soda-lime-silica Glass Particles; Eutectic Crystallization

Crystallization Propagating from the Surface of a CaO-Li₂O-SiO₂ Glass Eutectic Crystallization on a CaO-Li₂O-SiO₂ Glass; Eutectic Crystallization of CaO-Li₂O-SiO₂ Glass; Hummingbird-like Crystals on the Surface of a Eutectic CaO-Li₂O-SiO₂ Glass; Orchid-like Crystallization in a Eutectic CaO-Li₂O-SiO₂ Glass; Star-fruit-like Crystals in a Eutectic Glass; Cracks and Bubbles in Glass-ceramics; Self-cracking of Crystals in Isochemical Glass; Spontaneous Crack Propagation in a Bioactive Glass-ceramic; Toughening of a Glass-ceramic by Crack De. ection

Toughening of a Dental Glass-ceramic by Crack Detection

Sommario/riassunto

A "'must-have'" for materials engineers, chemists, physicists, and geologists, this is one of the first "'coffee-table'" books in the field of glass science. Containing over fifty beautiful micrographs, the book reflects 35 years of original research by a highly regarded authority in the field. It contains 50 slides culled from tens of thousands of images on glass crystal nucleation, growth, and crystallization. The images represent glass crystallization mechanisms, including internal, surface, homogeneous, heterogeneous, and eutectic, crystal nucleation and growth.
