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Nota di contenuto	Liquid Crystals: General Introduction -- Physical Properties of Liquid Crystals: I. Scalar and Anisotropic Properties -- Physical Properties of Liquid Crystals: II. Transport and Elastic Properties -- Measurement of Liquid Crystal parameters and Physical Properties -- Nematic Liquid Crystals -- Smectic Liquid Crystals -- Liquid Crystals of Disc-Like Molecules -- Liquid Crystalline Polymers -- Polymer Dispersed Liquid Crystals -- Bent Core Liquid Crystals.
Sommario/riassunto	This expert and self-contained authored handbook provides comprehensive coverage of liquid crystals from the fundamental materials science, physics, and modeling through cutting-edge applications. Written by an author with over 40 years of active experience in this growing field, it offers an unprecedented self-contained treatment of this key research area. Liquid Crystals are a

state of matter sharing properties that are usually associated with both solids and liquids. Their study belongs to wider field of soft condensed matter physics, an area growing in importance because of the new physics being discovered and the possibilities of various technological applications being developed. Liquid crystals continue to have a revolutionary technological impact and consistently pose new challenges of basic understanding. While the experimental side of liquid crystal research is very well developed, theoretical understanding has lagged, and this volume fills a gap in the published literature in terms of rigorous treatment of mathematical and computer modeling approaches. Volume I of this handbook deals with the physical foundations and fundamental aspects of liquid crystals, addressing their physical properties, measurement techniques, and various types. Overall, this handbook serves as the ultimate scholarly guide for researchers, scientists, and engineers seeking to unlock the full potential of liquid crystals. It offers a comprehensive understanding of these materials and their diverse applications, empowering readers to navigate the complex intricacies of liquid crystal science and technology.
