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Nota di contenuto	Part I: Synthesis, Self-Assembly, and Dynamics -- Structure and Assembly of Liquid Crystalline Block Copolymers -- Columnar Phase-Forming Polymers -- Liquid Crystalline Polymers Derived from Disc-Shaped Molecules -- Mesogen-Jacketed Liquid Crystalline Polymers: Molecular Design and Synthesis -- Supramolecular Self-Assembly of Discotic Liquid Crystalline LEGOs -- Structure and Dynamics of Liquid Crystalline Polymers -- Highlighting Solid-Like Behaviours in Liquid State of Polymers, Liquid Crystals, Glass Formers and Molecular Fluids -- Part II: Functional Liquid Crystalline Polymers and Applications -- Anisotropic Liquid Crystal Networks from Reactive Mesogens -- Liquid Crystalline Conjugated Polymers with Optoelectronic Functions -- Liquid Crystalline Conjugated Polymers -- New Stimuli Responsive Liquid Crystalline Polymer Architectures -- Characterizations of Nanocomposites of Liquid Crystalline Polymers -- Fullerene Liquid Crystals -- Photodeformable Crosslinked Liquid Crystalline Polymers -- Light Sensitive Azobenzene Containing Liquid Crystalline Polymers -- Photoresponsive Liquid Crystalline Polymers -- Photoactive Liquid

	Crystalline Polymers -- Photoalignment of Liquid Crystal Molecules using Fluorine-Containing Polyimides -- Highly Flame-Retardant Liquid Crystalline Polymers -- Gas Permeation and Barrier Properties of Liquid Crystalline Polymers.
Sommario/riassunto	This book provides a comprehensive overview of various self-assemblies in liquid crystalline polymers and their electrical, optical, mechanical, and flame retardant properties. Liquid crystalline polymers are unique self-assembled, functional soft materials with electrical, magnetic, and thermal responses which find potential applications in numerous areas. As well as providing an overview of their synthesis, self-assembly and dynamics the various applications are also discussed. Such applications as liquid crystalline elastomers, light responsive actuators, optical reflectors, gas barrier films, and even flame retardant polymers will be presented. The book is a useful resource for undergraduates, postgraduates and experienced researchers.