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Nota di contenuto	Part I Nucleation and Crystal Growth -- X-ray Birefringence Imaging: A New Technique to Characterize Bond Orientational Distributions in Organic Materials -- Direct Visualization of Crystal Formation and Growth Process Probed by the Organic Fluorescent Molecules -- Anti-solvent Crystallization Method for Production of Desired Crystalline Particles -- Crystal Nucleation of Proteins Induced by Surface Plasmon Resonance -- Control of Crystal Size Distribution and Polymorphs in the Crystallization of Organic Compounds -- Managing Thermal History to Stabilize/Destabilize Pharmaceutical Glasses -- Part II Structure and Design of Crystals -- Supramolecular, Hierarchical and Energetical Interpretation of Organic Crystals: Generation of Supramolecular Chirality in Assemblies of Achiral Molecules -- Relationship Between Atomic Contact and Intermolecular Interactions: Significant Importance of Dispersion Interactions Between Molecules without Short Atom-atom Contact in Crystals -- Pharmaceutical Multicomponent Crystals: Structure, Design, and Properties -- The Design of Porous Organic Salts with Hierarchical

Process -- Layered Hydrogen-bonded Organic Frameworks as Highly Crystalline Porous Materials -- Kinetic Assembly of Porous Coordination Networks Leads to Trapping Unstable Elemental Allotropes -- Creation of Organic-Metal Hybridized Nanocrystals toward Nonlinear Optics Applications -- Part III Function -- Luminescent Crystal – Control of Excited-State Intramolecular Proton Transfer (ESIPT) Luminescence through Polymorphism -- Solid-State Fluorescence Switching Using Photochromic Diarylethenes -- Circularly Polarized Luminescence from Solid-State Chiral Luminophores -- Azulene-Based Materials for Organic Field-Effect Transistors -- Electronic Functions of Nanostructured Liquid Crystals with Electronic and Ionic Conductivity -- Part IV Chirality -- Kryptoracemates -- Twenty-Five Years' History, Mechanism and Generality of Preferential Enrichment as a Complexity Phenomenon.-Asymmetric Synthesis Involving Dynamic Enantioselective Crystallization -- Molecular Recognition by Inclusion Crystals of Chiral Host Molecules Having Trityl and Related Bulky Groups -- Asymmetric Catalysis and Chromatographic Enantiomer Separation by Homochiral Metal-Organic Framework: Recent Advances -- Part V Solid-State Reaction -- Solid-State Polymerization of Conjugated Acetylene Compounds to Form - Conjugated Polymers -- Click Chemistry to Metal Organic Frameworks as a Synthetic Tool for MOF and Applications for Functional Materials.

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#### Sommario/riassunto

This book summarizes and records the recent notable advances in diverse topics in organic crystal chemistry, which has made substantial progress along with the rapid development of a variety of analysis and measurement techniques for solid organic materials. This review book is one of the volumes that are published periodically on this theme. The previous volume, published in 2015, systematically summarized the remarkable progress in assorted topics of organic crystal chemistry using organic solids and organic–inorganic hybrid materials during the previous 5 years, and it has been widely read. The present volume also shows the progress of organic solid chemistry in the last 5 years, with contributions mainly by invited members of the Division of Organic Crystal Chemistry of the Chemical Society of Japan (CSJ), together with prominent invited authors from countries other than Japan.

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