1. Record Nr. UNINA9910145691303321

Titolo	IEEE Southeastcon 2008
Pubbl/distr/stampa	[Place of publication not identified], : I E E E, 2008
ISBN	9781509073818 1509073817 9781424418848 1424418844
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph

2. Record Nr. UNINA9911019479203321

Titolo	Frontiers in crystal engineering / / edited by Edward R.T. Tiekink, Jagadese J. Vittal
Pubbl/distr/stampa	Chichester, England ; ; Hoboken, NJ, : Wiley, c2006
ISBN	9786610448777 9781280448775 1280448776 9780470022610 0470022612 9780470022597 0470022590
Descrizione fisica	1 online resource (347 p.)
Altri autori (Persone)	TiekinkEdward R. T VittalJagadese J
Disciplina	548
Soggetti	Molecular crystals - Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.

Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontiers in Crystal Engineering; Contents; List of Contributors; Foreword; 1 Applications of Crystal Engineering Strategies in Solvent-free Reactions: Toward a Supramolecular Green Chemistry; 1 Introduction; 1.1 Making Crystals by Smashing Crystals?; 1.2 Milling, Grinding, Kneading and Seeding; 2 Mechanochemical Preparation of Hydrogen-Bonded Adducts; 3 Mechanically Induced Formation of Covalent Bonds; 3.1 Mechanochemical Preparation of Coordination Networks; 4 The Solvent-free Chemistry of the Zwitterion [CoIII(5-C5H4COOH)(5-C5H4COO)]; 5 Concluding Remarks; 6 Acknowledgments; References 2 Crystal Engineering of Pharmaceutical Co-crystals1 Introduction; 1.1 What Are Co-crystals?; 1.2 How Are Co-crystals Prepared?; 1.3 Why Are Co-crystals of Relevance in the Context of APIs?; 2 What Is the Origin of Polymorphism and Is It Prevalent in Co-crystals?; 3 What Is a Pharmaceutical Co-crystal?; 3.1 A Case Study: Pharmaceutical Co-crystals of Carbamazepine, 1 (CBZ, 1); 3.2 But Beware of "Fake" Pharmaceutical Co-crystals!; 4 Conclusions; 5 Acknowledgments; References; 3 Template-controlled Solid-state Synthesis: Toward a General Form of Covalent Capture in Molecular Solids 1 Introduction1.1 Target-oriented Organic Synthesis; 1.2 Target-oriented Organic Synthesis and Covalent Capture; 1.3 Overview; 2 Controlling Reactivity Using Linear Templates; 3 Template-controlled Solid-state Reactivity; 3.1 Template-controlled Reactivity in the Solid state; 3.2 Resorcinol as a Linear Template; 3.3 Modularity and Generality; 4 Target-oriented Organic Synthesis in the Solid State; 4.1 [2.2]-Paracyclophane; 4.2 Template Switching; 4.3 Ladderanes; 5 Other Linear Templates; 5.1 1,8-Naphthalenedicarboxylic Acid; 5.2 Bis-p-phenylene[34]-crown[10] 5.3 Carballylic and 1,2,4,5-Benzenetetracarboxylic Acids5.4 Tetrakis(4-iodoperfluorophenyl)erythritol; 6 Summary and Outlook; References; 4 Interplay of Non-covalent Bonds: Effect of Crystal Structure on Molecular Structure; 1 Introduction; 2 Second-Sphere Coordination; 3 Soft Coordination Environments; 3.1 Mercury and Tin; 3.2 Comparison with Calculation; 3.3 Influence of Disorder; 4 Speciation; 5 Molecular Conformation; 6 Conclusions; References; 5 Crystal Engineering of Halogenated Heteroaromatic Clathrate Systems; 1 Introduction; 1.1 Clathrates; 1.2 New Clathrand Inclusion Hosts 1.3 Halogenated Heteroaromatic Hosts2 Aromatic Edge-Edge C-H· · ·N Dimers; 3 Heteroatom-1,3-Peri Interactions; 3.1 The Ether-1,3-Peri Aromatic Hydrogen Interaction; 3.2 The Thioether-and Aza-1,3-Peri Aromatic Hydrogen Interactions; 4 Molecular Pen Structures; 5 Halogenated Edge-Edge Interactions; 6 Pi-Halogen Dimer (PHD) Interactions; 6.1 A New Aromatic Building Block; 6.2 Staircase Inclusion Compounds; 6.3 Layer Inclusion Compounds; 7 Molecular Bricks, Spheres and Grids; 7.1 Bricks and Mortar Inclusion Systems; 7.2 Molecular Spheres of Variable Composition; 7.3 Interlocking Molecular Grids 8 Conclusions
Sommario/riassunto	Crystal engineering - where the myriad of intermolecular forces operating in the solid-state are employed to design new nano- and functional materials - is a key new technology with implications for catalysis, pharmaceuticals, synthesis and materials science.Frontiers in Crystal Engineering gathers personal perspectives, from international specialists working in molecular aspects of crystal engineering, on the practical and theoretical challenges of the discipline, and future prospects. These demonstrate the approaches that are being used to tackle the problems associated with the comp