

1. Record Nr.	UNINA9910743347003321
Titolo	Advances in Sustainable Materials and Resilient Infrastructure // edited by Krishna R. Reddy, Rathish Kumar Pancharathi, Narala Gangadhara Reddy, Suchith Reddy Arukala
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	9789811697432 9811697434 9789811697449 9811697442
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (422 pages)
Collana	Springer Transactions in Civil and Environmental Engineering, , 2363-7641
Disciplina	690.028
Soggetti	Buildings - Design and construction Building materials Statics Building Construction and Design Building Materials Mechanical Statics and Structures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Sustainable Materials for Concrete Making -- Influence of Binder Chemical Properties on the Elastic Properties of Asphalt Mixes Containing RAP Material -- Principles and Prospects of using Lignosulphonate as a Sustainable Expansive Soil Ameliorator: From Basics to Innovation -- Assessment of Recycled Aggregate as a Sustainable Concrete Material using Self-Curing Agents -- Sustainable building materials in the Indoor environment- The way forward.
Sommario/riassunto	The edited book comprises invited book chapter contributions from global experts in the field of sustainable materials and resilient infrastructure. The book covers the most critical and emerging topics for creating sustainable solutions for the construction industry, promoting the technologies and monitoring methods for resilient infrastructure. It focuses on sustainable solutions and offers techniques

and methodologies to deliver high-quality end solutions in civil engineering. In addition, the content provides knowledge-based information for the readers to assess, monitor, measure, and practice sustainability for resilient infrastructure. The contents of the volume are a blend of academic research work and industrial case studies. It covers the use of sustainable materials like Lime-Pozzolona Binders, biopolymers, lignosulphonate, lightweight aggregates made from fly ash, calcinated clay, paper ash, and limestone as amendments/ameliorators for soil remediation, development of neo-construction materials and composites for civil engineering applications. Design of innovative pavements using alkali activation and pervious concrete for sustainable infrastructure is also discussed. The chapters also highlight the role of civil engineers in achieving UN Sustainable Development Goals, promoting climate change design for urban landscapes, and modelling building energy demand. This book is framed to address the principles and practice from the corners of geoenvironment, sustainable construction materials, low carbon materials, energy efficiency, and waste management. It is a valuable reference for faculty, researchers, field experts, scientists, and practicing engineers.

2. Record Nr.	UNINA9911048000103321
Autore	Chujo Y (Yoshiki)
Titolo	Conjugated Polymer Synthesis and Materials Applications
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2026 ©2026
ISBN	3-527-84945-9 3-527-84944-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (401 pages)
Disciplina	547.84
Soggetti	Conjugated polymers Materials science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Half Title Page -- Title Page -- Copyright -- Contents -- About the Editor -- Preface -- 1. Transition Metal-catalyzed Polycondensation -- 1.1 Introduction -- 1.2 Ni-catalyzed Polycondensation -- 1.3 Pd-catalyzed Polycondensation -- 1.4 Pd- catalyzed Polycondensation via C-H Bond Functionalization -- 1.5 Cu- and Fe-catalyzed Polycondensation -- 1.6 Other Transition Metal- catalyzed Polymerization -- 1.7 Summary -- References -- 2. Living Conjugated Polymers -- 2.1 Introduction -- 2.2 Metal p -Binding in CTP -- 2.3 Catalysts for CTP -- 2.4 Kumada-Corriu Catalyst-transfer Polymerization -- 2.5 Catalyst-transfer Polymerization with Organolithium Reagents -- 2.6 Negishi Catalyst-transfer Polymerization -- 2.7 Suzuki-Miyaura Catalyst-transfer Polymerization -- 2.8 Stille Catalyst-transfer Polymerization (Stille CTP -- 2.9 Buchwald-Hartwig Amination and Direct Arylation Polymerization (C-H Activation) -- 2.10 Chain-growth Polymerization of Aromatics Without Metal Catalysts -- 2.11 Conclusion -- Acknowledgment -- Abbreviations -- Polymers -- Metal Catalysts -- Ligands -- Miscellaneous Reagents and Terms -- References -- 3. Optically Active Through-space Conjugated Polymers Based on Planar Chiral [2.2] Paracyclophane -- 3.1 Introduction -- 3.2 Through-space Conjugation of [2.2]Paracyclophane-based Conjugated Polymers -- 3.3 Optically

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Sommario/riassunto

Comprehensive reference exploring the synthesis, preparation, and applications of new and novel conjugated polymers Conjugated Polymer Synthesis and Materials Applications summarizes the fundamentals and major developments in the synthesis of new conjugated polymers.
