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| 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  |
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| Edizione                | [1st ed. 2022.]   |
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| Collana                 | Springer Transactions in Civil and Environmental Engineering, , 2363-7641   |
| Disciplina              | 690.028   |
| Soggetti                | Buildings - Design and construction<br>Building materials<br>Statics<br>Building Construction and Design<br>Building Materials<br>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.

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

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