1. Record Nr. UNICAMPANIASUN0122796

Autore	Eftimie, Raluca
Titolo	Hyperbolic and kinetic models for self-organised biological aggregations : a modelling and pattern formation approach / Raluca Eftimie
Pubbl/distr/stampa	XIII, 278 p., : ill. ; 24 cm
Edizione	[[Cham] : Springer, 2018]
Descrizione fisica	Pubblicazione in formato elettronico
Soggetti	35-XX - Partial differential equations [MSC 2020] 37-XX - Dynamical systems and ergodic theory [MSC 2020] 92-XX - Biology and other natural sciences [MSC 2020]
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

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Autore	Tong Xingcun Colin
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Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2022
ISBN	9783031172076 9783031172069
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (276 pages)
Collana	Springer Series in Materials Science, , 2196-2812 ; ; 327
Disciplina	405 621.38456
Soggetti	Optical communications Semiconductors Telecommunication Optical Communications Communications Engineering, Networks Microwaves, RF Engineering and Optical Communications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. 5G technology components and material solutions for hardware system integration -- Chapter 2. Semiconductor solutions for 5G -- Chapter 3. Design and performance enhancement for 5G antennas and beamforming integrated circuits -- Chapter 4. PCB materials and design requirements for 5G systems -- Chapter 5. Materials for high frequency filters -- Chapter 6. EMI shielding materials and absorbers for 5G communications -- Chapter 7. Thermal management materials and components for 5G devices -- Chapter 8. Protective packaging and sealing materials for 5G mobile devices -- Chapter 9. Perspectives on 5G and beyond applications and related technologies.
Sommario/riassunto	This book provides a comprehensive introduction to the current status and future trends of materials and component design for fifth-generation (5G) wireless communications and beyond. Necessitated by rapidly increasing numbers of mobile devices and data volumes, and acting as a driving force for innovation in information technology, 5G

networks are broadly characterized by ubiquitous connectivity, extremely low latency, and very high-speed data transfer. Such capabilities are facilitated by nanoscale and massive multi-input multi-output (MIMO) with extreme base station and device densities, as well as unprecedented numbers of antennas. This book covers semiconductor solutions for 5G electronics, design and performance enhancement for 5G antennas, high frequency PCB materials and design requirements, materials for high frequency filters, EMI shielding materials and absorbers for 5G systems, thermal management materials and components, and protective packaging and sealing materials for 5G devices. It explores fundamental physics, design, and engineering aspects, as well as the full array of state-of-the-art applications of 5G-and-beyond wireless communications. Future challenges and potential trends of 5G-and-beyond applications and related materials technologies are also addressed. Throughout this book, illustrations clarify core concepts, techniques, and processes. At the end of each chapter, references serve as a gateway to the primary literature in the field. This book is essential reading for today’s students, scientists, engineers and professionals who want to understand the current status and future trends in materials advancement and component design in 5G and beyond, and acquire skills for selecting and using materials and 5G component design that takes economic and regulatory aspects into account.