1.	Record Nr.	UNINA9910798052203321
	Titolo	Catalytic reactors / / edited by Basudeb Saha
	Pubbl/distr/stampa	Berlin, [Germany] ; ; Boston, [Massachusetts] : , : De Gruyter, , 2016 ©2016
	ISBN	1-5231-0450-3 3-11-033298-1 3-11-039012-4
	Descrizione fisica	1 online resource (356 p.)
	Collana	De Gruyter Graduate
	Disciplina	660/.2995
	Soggetti	Catalysts Chemical reactions Reactivity (Chemistry) Chemical engineering
	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 at the end of each chapters and index.
	Nota di contenuto	Frontmatter -- List of contributing authors -- About the editor -- Preface -- Contents -- 1. Catalysis in Multifunctional Reactors / Mahajani, Sanjay M. / Saha, Basudeb -- 2. Biocatalytic membrane reactors (BMR) / Vladisavljevi, Goran T. -- 3. Metallic nanoparticles made in flow and their catalytic applications in micro-flow reactors for organic synthesis / Shahbazali, Elnaz / Hessel, Volker / Noël, Timothy / Wang, Qi -- 4. Application of multi-objective optimization in the design and operation of industrial catalytic reactors and processes / Ivanov, Stanislav Y. / Ray, Ajay K. -- 5. Design of catalytic micro trickle bed reactors / Degirmenci, Volkan / Rebrov, Evgeny V. -- 6. Three-phase catalytic reactors for hydrogenation and oxidation reactions / Wood, Joseph -- 7. Design and modeling of laboratory scale three-phase fixed bed reactors / Kilpiö, Teuvo / Russo, Vincenzo / Eränen, Kari / Salmi, Tapio -- Index
	Sommario/riassunto	Catalytic Reactors presents several key aspects of reactor design in Chemical and Process Engineering. Starting with the fundamental science across a broad interdisciplinary field, this graduate level

textbook offers a concise overview on reactor and process design for students, scientists and practitioners new to the field. This book aims to collate into a comprehensive and well-informed work of leading researchers from north America, western Europe and south-east Asia. The editor and international experts discuss state-of-the-art applications of multifunctional reactors, biocatalytic membrane reactors, micro-flow reactors, industrial catalytic reactors, micro trickle bed reactors and multiphase catalytic reactors. The use of catalytic reactor technology is essential for the economic viability of the chemical manufacturing industry. The importance of Chemical and Process Engineering and efficient design of reactors are another focus of the book. Especially the combination of advantages from both catalysis and chemical reaction technology for optimization and intensification as essential factors in the future development of reactors and processes are discussed. Furthermore, options that can drastically influence reaction processes, e.g. choice of catalysts, alternative reaction pathways, mass and heat transfer effects, flow regimes and inherent design of catalytic reactors are reviewed in detail. Focuses on the state-of-the-art applications of catalytic reactors and optimization in the design and operation of industrial catalytic reactors Insights into transfer of knowledge from laboratory science to industry For students and researchers in Chemical and Mechanical Engineering, Chemistry, Industrial Catalysis and practising Engineers

2. Record Nr.	UNINA9910878060903321
Titolo	Quantum and Blockchain-based Next Generation Sustainable Computing / / edited by Srikanth Pulipeti, Adarsh Kumar, Nagaraju Mysore, Cathryn Peoples
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031580680 9783031580673
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource : illustrations
Collana	Contributions to Environmental Sciences & Innovative Business Technology, , 2731-8311
Disciplina	304.2
Soggetti	Sustainability Computer networks - Security measures Image processing - Digital techniques Computer vision Medicine, Preventive Health promotion Mobile and Network Security Computer Imaging, Vision, Pattern Recognition and Graphics Health Promotion and Disease Prevention
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	QSB - Smart Contracts, Consensus, and Quantum Cryptography -- The intersection of blockchain technology and the quantum era for sustainable medical services -- Innovative Solutions for Sustainability: Quantum and Blockchain Technologies -- Combating Counterfeit Drugs in Pharmaceutical supply chain (PSC) using Hyperledger Fabric Blockchain -- Quantum and BlockChain for Sustainable Health Care Ecosystem -- Music DApp on the Solana Blockchain Platform: Design, Development, and Analysis -- Role of Blockchain in Healthcare -- Innovative Solutions for Sustainable Medical Services: A Look into Quantum and Blockchain Technologies -- Blockchain Technology and Quantum Computing: A Promising Solution for Healthcare Industry and COVID-19 Pandemic -- Sustainable solutions for server-less edge, fog

and cloud computing using quantum and blockchain technology.

Sommario/riassunto	Quantum and Blockchain technology innovations have recently gained a lot of attention and have been integrated with other contemporary technologies for numerous applications. As a result, these applications achieve sustainability, robustness, scalability, security, accountability, and efficiency. Thus, this book covers the principles, terminologies, methods, protocols, and sustainability of quantum and blockchain technology. Furthermore, it provides insights into numerous challenges associated with other domains of computer science. In addition, the book provides various opportunities to integrate the quantum and blockchain technology-based sustainable solutions that incorporate low-cost, quality of services, secure and faster delivery of services for future demands in the fields such as cryptography, artificial intelligence (AI), machine learning (ML), deep learning (DL), computer vision, healthcare, autonomous vehicles, transportation, information, and communication theory. The information in this book is extremely useful for readers and practitioners in different fields including chemistry, mechanical and automotive engineering, healthcare, computer science, data science, and business analysis specialists in combining both basic and advanced level principles.