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Publisher in Materials Science & Engineering

Scientific Books

Collection 2024



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Welcome

In 2022, TTP introduced a new book collection “Scientific Books Collection” (SBC). Recently started, 106 titles have already been published by the 2023 year-end!

The Scientific Books Collection combines the best of both worlds: top conference contributions from different years but collected around a specific topic/field. These selections offer aggregation plus best-in-class information presenting the newest development in different areas of materials science and engineering. Additionally, all papers are peer-reviewed, being unique for conference papers.

A selection of conferences and topics:

ICAMEM, ICBMC, ICMENS, ISAM, ICAMS, International World Energy Conference, AUTEX World Textile Conference, Sustainable Green Construction and Nano-Technology, Energy Storage Technology and Applications, Contribution of Metallography to Production Problem Solutions and many others.

These conferences bring to light the latest academic outputs in the broad area of materials science and engineering, from theoretical and computational research to prototyping and engineering application.

An actual list of the available book titles with short annotations and ToC can be found under “Books”.

The Scientific Books Collection is intended for practising engineers, scientific researchers, institutions and research groups, corporations' R&D and programs dedicated to materials science and engineering.

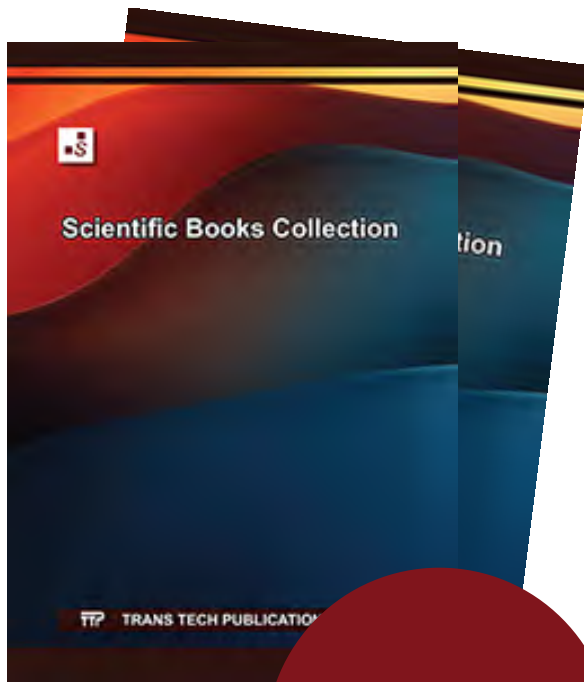
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Trans Tech Publications Ltd. strives to meet the high expectations of customers and partners via efficient service and high-quality products.

Anne-Kristin Wohlbier,
CEO



Scientific Books Collection - 2023 selection



**72 Titles
(2023)**

Available as Book or eBook

■ Print	EUR 10'598
■ eBook, Single-User with username	EUR 9'122
■ eBook, Multi-User with IP Access	EUR 16'297
■ Print plus eBook, Single-User	EUR 13'804
■ Print plus eBook, Multi-User	EUR 21'516

Editorial inquiries:

✉ editors@scientific.net

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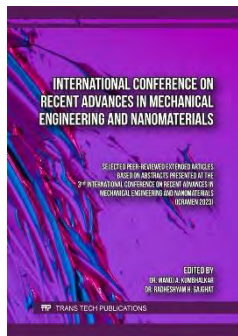
✉ subscriptions@scientific.net

"Scientific Books Collection" presents to the readers the newest development in different areas of materials science and engineering. The collection of invited contributions as well as extended scientific research papers presented and discussed worldwide provides a global overview with solid discussions and in-depth studies.

The Scientific Books Collection is intended for the interest of practical engineers, scientific researchers, institutions and research groups, corporations' R&D and programs dedicated to materials science and engineering.

An actual list of the available book titles with short annotations and ToC can be found under "Books".

www.scientific.net/SBC



International Conference on Recent Advances in Mechanical Engineering and Nanomaterials

Volume in the series: 106

Aggregated Book

Edited by: Dr. Manoj A. Kumbhalkar and Dr. Radheshyam H. Gajghat

ICRAMEN 2023 was a two day event that aimed to showcase state-of-the-art methodologies and technologies in mechanical engineering and nanomaterials. It focused on new ideas to pave the way and disseminate the latest innovations and practices in the related fields. It provided opportunities to network, collaborate, and exchange ideas with renowned leaders, scientists, and researchers in engineering and technology. As a platform for industry and academia fostering innovative ideas, theories, frameworks, and applications, ICRAMEN 2023 encouraged recent and futuristic advancements, challenges, and new strategies in the frontiers of science, engineering and nanomaterials.

Topics: Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Alloys, Cement, Energy, Functional Composites, Machine Learning, Materials Forming, Materials Processing, Mechanics, Modeling, Monitoring and Control Systems, Nanocomposites, Production Equipment, Production Processes, Steel, Welding

Prices: Print: **US\$ 70.00/ EUR 70.00**
 eBook Single-User: **US\$ 70.00/ EUR 70.00**
 eBook Multi-User: **US\$ 123.00/ EUR 123.00**

Print: 978-3-0364-0231-4
 eBook: 978-3-0364-1231-3
 112 pages, 2023

<https://www.scientific.net/978-3-0364-0231-4/book>



2023 The 6th International Conference on Materials Engineering and Applications & 2023 7th International Conference on Manufacturing Technologies

Volume in the series: 105

Aggregated Book

Edited by: Steven Y. Liang and Jae Jin Shim

The 2023 6th International Conference on Materials Engineering and Applications (ICMEA 2023) and the 2023 7th International Conference on Manufacturing Technologies (ICMT 2023) were successfully held in Singapore and online on January 13-15, 2023. After the rigorous review process, 28 papers were accepted and included in this conference book. Covered topics include metallic materials, metalworking and mechanical properties, biomedical materials and coatings, solid mechanics and defect identification, materials chemistry and materials application in chemical engineering, preparation and properties of advanced building materials, nanolithography technology and material physics, material forming and mechanical manufacturing. We hope that this edition will serve as an important research source of references and knowledge, which will lead to not only scientific and engineering findings but will also result in new products and technologies.

Topics: Bioscience and Medicine, Building Materials, Electronics, Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Alloys, Bioceramic, Biomedical Materials, Cement, Chemical Production, Coatings, Concrete, Contact Mechanics, Defect Identification, Green Building Materials, Mechanical Properties, Microelectronics, Microtubes, Optoelectronics, Photocatalysts, Polymer Materials, Steel, Strength of Materials, Structural Metals, Tribology, Waste

Prices: Print: **US\$ 155.00/ EUR 155.00**
 eBook Single-User: **US\$ 155.00/ EUR 155.00**
 eBook Multi-User: **US\$ 271.00/ EUR 271.00**

Print: 978-3-0364-0252-9
 eBook: 978-3-0364-1252-8
 218 pages, 2023

<https://www.scientific.net/978-3-0364-0252-9/book>



International Conference on Processing and Manufacturing of Advanced Materials Processing, Fabrication, Properties, Applications - THERMEC 2023

Volume in the series: 104

Aggregated Book

Edited by: Prof. Mihail Ionescu, Prof. Tara Chandra, Prof. Christof Sommitsch and Prof. Raj Shabadi

This book presents full text peer-reviewed papers presented at the THERMEC 2023, the 12th International Conference on Processing and Manufacturing of Advanced Materials, which took place between July 03 and July 07, 2023, in Vienna, Austria, under the co-sponsorship of TU Wien and Graz University of Technology. The Conference was also under the auspices of professional organizations from Japan, Korea, France, Italy, The Netherlands, Germany, Brazil, Austria, India, and Canada. The Conference brought together researchers and engineers/technologists working in different aspects of processing, fabrication, structure/property evaluation and applications of both, ferrous and nonferrous materials including biomaterials, smart/intelligent materials as well as advanced characterisation techniques.

Topics: Building Materials, Manufacturing, Materials Science, Nanoscience

Keywords: Additive Manufacturing, Alloy, Biomaterials, Casting, Ceramics, Coating, Composite, Computational Materials Science, Forming, Friction Stir Welding, Functional Materials, Hot-Pressing, Hydrogen Embrittlement, Industrial Engineering, Integrated Circuit Packaging, Measurement, Mechanical Properties, Metallurgy, Microstructure, Modelling, Nanomaterials, Operation Research, Plating, Powder Metallurgy, Rolling, Semiconductor, Sintering, Soldering, Solidification, Steel, Surface Engineering, Testing Methods, Welding

Prices: Print: **US\$ 370.00/ EUR 370.00**
 eBook Single-User: **US\$ 198.00/ EUR 198.00**
 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0104-1
 eBook: 978-3-0364-1104-0
 1320 pages, 2023

<https://www.scientific.net/978-3-0364-0104-1/book>



The 21st Conference Silicate Binders

Volume in the series: 103

Aggregated Book

Edited by: Assoc. Prof. Dr. Karel Dvořák and Simona Ravaszova

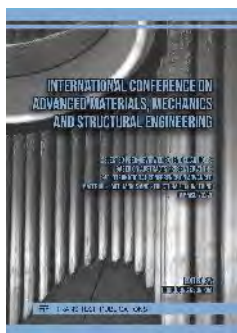
This publication contains papers published in the framework of the 21st International Conference Silicate Binders 2022. It contains research results in the field of cement and similar inorganic binders. It also contains research results on cement composites, concrete, and geopolymers.

Topics: Building Materials, Civil Engineering, Construction, Materials Science

Keywords: Cement, Cement-Based Composites, Composite, Concrete, Contemporary Composite Materials, Green Building Materials, Lime-Based Composites, Limestone, Silicate Materials

Prices: Print: **US\$ 95.00/ EUR 95.00** Print: 978-3-0364-0202-4
eBook Single-User: **US\$ 95.00/ EUR 95.00** eBook: 978-3-0364-1202-3
eBook Multi-User: **US\$ 166.00/ EUR 166.00** 132 pages, 2023

<https://www.scientific.net/978-3-0364-0202-4/book>



International Conference on Advanced Materials, Mechanics and Structural Engineering

Volume in the series: 102

Aggregated Book

Edited by: Prof. Dong Keon Kim

The primary objective of the 9th International Conference on Advanced Materials, Mechanics and Structural Engineering (9th AMMSE 2022, South Korea, December 16-18, 2022) was to provide a world-class forum for the exchange of original ideas, new information and the latest research results in the area of material science and engineering technology.

Topics: Building Materials, Materials Science, Mechanical Engineering

Keywords: Alloy, Composite, Concrete, Construction 3D Printing, Equipment Design, High-Temperature Deformation, Magnetorheological Elastomer, Mechanical Properties, Physical Metallurgy, Soil-Cement Matrice, Steel

Prices: Print: **US\$ 45.00/ EUR 45.00** Print: 978-3-0364-0164-5
eBook Single-User: **US\$ 45.00/ EUR 45.00** eBook: 978-3-0364-1164-4
eBook Multi-User: **US\$ 79.00/ EUR 79.00** 90 pages, 2023

<https://www.scientific.net/978-3-0364-0164-5/book>



The 8th International Conference on Materials Science and Smart Materials

Volume in the series: 101

Aggregated Book

Edited by: Dr. Mohamad Ramadan and Prof. Abdul Ghani Olabi

This book collected the peer-reviewed full text articles that were selected from the 8th International Conference on Materials Science and Smart Materials (MSSM 2022) successfully held at Brunel University London (the UK, July 11-13, 2022). This edition comprised articles to reflect recent achievements in the fields of materials science: their development, application and processing, mechanical engineering including mechatronics and sensors, fuel cells engineering, circular economy and waste management.

Topics: Building Materials, Environmental Engineering, Industrial Engineering, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Biochar, Carbon Nanotubes, Circular Economy, Composite, Construction Waste, Corrosion Resistance, Demolition Waste, Fuel Cells, Heat Waste, Mechanical Engineering, Mechanical Properties, Mechatronics, Microbial Fuel Cells, Micromachining, Polymer, Sensor, Steel, Stress Corrosion Cracking, Waste Management

Prices: Print: **US\$ 135.00/ EUR 135.00** Print: 978-3-0364-0055-6
eBook Single-User: **US\$ 135.00/ EUR 135.00** eBook: 978-3-0364-1055-5
eBook Multi-User: **US\$ 236.00/ EUR 236.00** 196 pages, 2023

<https://www.scientific.net/978-3-0364-0055-6/book>



14th International Conference on Materials and Manufacturing Technologies

Volume in the series: 100

Aggregated Book

Edited by: Prof. Vladimir Khovaylo and Nguyen Quang Liem

The 14th International Conference on Materials and Manufacturing Technologies (ICMMT 2023) is a premier, annual forum for researchers and scholars from multiple disciplines providing an opportunity to come together and share knowledge, discuss ideas, exchange information, and learn about cutting-edge research in diverse fields with common themes of materials and manufacturing technologies.

Topics: Building Materials, Materials Science, Nanoscience

Keywords: Alloys, Cement, Green Building Materials, Laser Processing, Microstructure, Nanocomposites, Nanomaterials, Steel, Synthesis, Waste

Prices: Print: **US\$ 30.00/ EUR 30.00**
eBook Single-User: **US\$ 30.00/ EUR 30.00**
eBook Multi-User: **US\$ 53.00/ EUR 53.00**

Print: 978-3-0364-0229-1
eBook: 978-3-0364-1229-0
76 pages, 2023

<https://www.scientific.net/978-3-0364-0229-1/book>



International Conference on Emerging Materials for Technological Applications

Volume in the series: 99

Aggregated Book

Edited by: Prof. Sabu Thomas, Dr. CH. V. V. Ramana, Dr. Santhosh Kumar Alla and Dr. R. Hanumantha Rao

This book is compiled of articles presented at the International Conference on Emerging Materials for Technological Applications (ICEMTA-2022, 23-25 November 2022, Visakhapatnam, India) and is dedicated to the current issues related to the investigation of materials utilised for various engineering applications. Structural, mechanical, dielectric and photoluminescence properties as well as current issues related to methods of chemical research and assessment are discussed here.

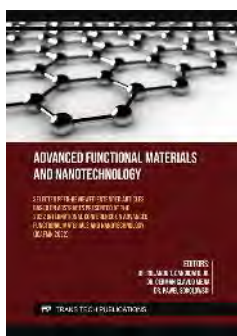
Topics: Materials Science, Nanoscience

Keywords: Alloys, Ceramics, Chemical Research, Composite, Dielectric Properties, Functional Composites, Mechanical Properties, Nanocomposite, Nanoparticles, Photoluminescence Properties, Structural Metals

Prices: Print: **US\$ 80.00/ EUR 80.00**
eBook Single-User: **US\$ 80.00/ EUR 80.00**
eBook Multi-User: **US\$ 140.00/ EUR 140.00**

Print: 978-3-0364-0154-6
eBook: 978-3-0364-1154-5
128 pages, 2023

<https://www.scientific.net/978-3-0364-0154-6/book>



Advanced Functional Materials and Nanotechnology

Volume in the series: 98

Aggregated Book

Edited by: Dr. Rolando T. Candidato, Jr., Dr. German Clavijo Mejia and Dr. Pawel Sokolowski

This collection is compiled of articles selected from the 2022 International Conference on Advanced Functional Materials and Nanotechnology (ICAFMN 2022) which took place on October 27-29, 2022, Philippines. The conference was focused on the latest advancements in functional materials and nanotechnology and aimed to bring together cutting-edge research from leading experts and researchers to highlight the state-of-the-art developments and achievements in the field. The collected research papers are dedicated to the simulation, synthesis, and characterisation of modern materials. Moreover, the papers discuss advances in theoretical modelling, fabrication techniques, and the integration of functional materials into real-world applications.

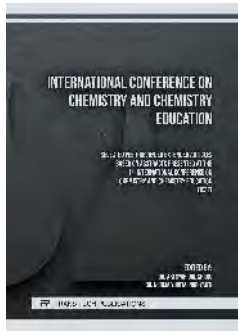
Topics: Bioscience and Medicine, Materials Science, Nanoscience

Keywords: Anticorrosion Coatings, Atomic Force Microscopy, Biopolymers, Composites, Functional Materials, Identification Materials, Monte Carlo Simulation, Nanocellulose, Radiotherapy, Thin Films

Prices: Print: **US\$ 85.00/ EUR 85.00**
eBook Single-User: **US\$ 85.00/ EUR 85.00**
eBook Multi-User: **US\$ 149.00/ EUR 149.00**

Print: 978-3-0364-0183-6
eBook: 978-3-0364-1183-5
154 pages, 2023

<https://www.scientific.net/978-3-0364-0183-6/book>



International Conference on Chemistry and Chemistry Education

Volume in the series: 97

Aggregated Book

Edited by: Dr. Ari Syahidul Shidiq and Dr. Nurma Yunita Indriyanti

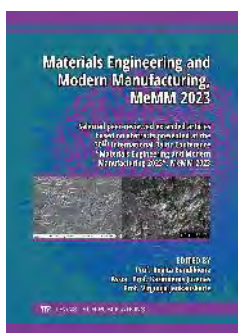
This collection presents selected papers from the 1st International Conference on Chemistry and Chemistry Education (IC3E) which was held in Surakarta, Indonesia on August 19-20, 2022. All papers were exposed to blind peer review by the conference committee and the international reviewers. The thematic of these research results are wide and include composites, materials for biomedical applications, nano-scale materials, technologies of wastewater treatment and biofuel synthesis, food chemistry and biocomposites.

Topics: Bioscience and Medicine, Materials Science, Nanoscience

Keywords: Adsorbent, Antibacterial Activity, Biocomposite, Biocomposites, Biofuel, Biomaterials, Bioremediation, Drug Delivery, Dye Removal, Food Chemistry, Limonite Ore, Nanoparticle, Titania Synthesis, Wastewater Treatment

Prices: Print: **US\$ 150.00/ EUR 150.00** Print: 978-3-0364-0044-0
 eBook Single-User: **US\$ 150.00/ EUR 150.00** eBook: 978-3-0364-1044-9
 eBook Multi-User: **US\$ 263.00/ EUR 263.00** 242 pages, 2023

<https://www.scientific.net/978-3-0364-0044-0/book>



Materials Engineering and Modern Manufacturing, MeMM 2023

Volume in the series: 96

Aggregated Book

Edited by: Prof. Regita Bendikiene, Kazimieras Juzėnas and Prof. Virginija Jankauskaite

This book presents the collection of articles selected from the 30th International Baltic Conference on Materials Engineering and Modern Manufacturing, MeMM 2023 (October 19-20, 2023, Kaunas, Lithuania). The main objective of this book is to offer a comprehensive collection of articles covering a wide range of topics including advanced materials, manufacturing processes, state-of-the-art technologies and practical applications of engineering materials and industrial engineering. The 2023 meeting "Materials Engineering and Modern Manufacturing" served as a continuation of the longstanding tradition established by the Materials Societies of Baltic Countries and the Association of Baltic Materials Societies, consistently having been organizing conferences of significant importance in this field. This conference is the latest step in the long-standing sharing of knowledge and insights about materials engineering and modern manufacturing. Let it be an even brighter platform to share innovative research, promote international collaboration and inspire the next generation of scientists and engineers. May the conference consistently push the boundaries of knowledge about materials engineering and modern manufacturing, contributing to progress that benefits society as a whole.

Topics: Bioscience and Medicine, Manufacturing, Materials Science, Nanoscience

Keywords: Alloys, Biobased Materials, Coatings, Composites, Nanomaterials, Nanotubes, Polymers, Product Design, Production Processes

Prices: Print: **US\$ 120.00/ EUR 120.00** Print: 978-3-0364-0251-2
 eBook Single-User: **US\$ 120.00/ EUR 120.00** eBook: 978-3-0364-1251-1
 eBook Multi-User: **US\$ 210.00/ EUR 210.00** 156 pages, 2023

<https://www.scientific.net/978-3-0364-0251-2/book>



International Conference on Material Engineering Research

Volume in the series: 95

Aggregated Book

Edited by: Prof. Jong Wan Hu

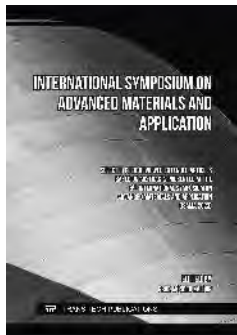
The 6th International Conference on Material Engineering Research (6th ICMER 2023) took place in Jeju Island, South Korea, on April 14-16, 2023. The primary objective of ICMER 2023 was to provide a world-class forum for the exchange of original ideas, new information, and the latest research results in the area of materials science and engineering technology.

Topics: Building Materials, Materials Science, Mechanical Engineering, Nanoscience

Keywords: 3D Printing, Alloys, Biomedical Materials, Coating, Energy Storage, Forging, Green Building Materials, Manufacturing Technologies, Natural Fibers, Numerical Modelling, Renewable Energy, Solar Energy, Steel, Waste Treatment

Prices: Print: **US\$ 90.00/ EUR 90.00** Print: 978-3-0364-0214-7
 eBook Single-User: **US\$ 90.00/ EUR 90.00** eBook: 978-3-0364-1214-6
 eBook Multi-User: **US\$ 158.00/ EUR 158.00** 144 pages, 2023

<https://www.scientific.net/978-3-0364-0214-7/book>



International Symposium on Advanced Materials and Application

Volume in the series: 94

Aggregated Book

Edited by: Prof. Mosbeh Kaloop

The 2023 International Symposium on Advanced Materials and Application (ISAMA 2023) took place in Incheon, South Korea, on February 17-19, 2023. The objective of ISAMA 2023 was to bring together scientists, engineers, postgraduates and other professionals in the area of materials science, materials applications and engineering technology from all over the world for the discussion of recent achievements in the field.

Topics: Bioscience and Medicine, Building Materials, Materials Science

Keywords: Asphalt Concrete, Chlorhexidine, Dentistry, Electronics Waste, Green Composite, Lime, Mechanical Properties, Mortar, Natural Fibers, Secondary Caries, Waste Recycling

Prices: Print: **US\$ 40.00/ EUR 40.00**
eBook Single-User: **US\$ 40.00/ EUR 40.00**
eBook Multi-User: **US\$ 70.00/ EUR 70.00**

Print: 978-3-0364-0182-9
eBook: 978-3-0364-1182-8
60 pages, 2023

<https://www.scientific.net/978-3-0364-0182-9/book>



International Scientific Applied Conference "Problems of Emergency Situations"

Volume in the series: 93

Aggregated Book

Edited by: Dr. Alexey Vasilchenko, Andrii Kondratiev, Dr. Andrii Kovalov, Dr. Evgeniy Rybka, Konstantinos Sotiriadis, Dr. Nataliia Mahas, Mykola Surianinov, Dr. Volodimir Trigub, Dr. Nina Rashkevich, Volodymyr Semko, Volodymyr Andronov and Yurii Otrosh

The annual International Scientific Applied Conference "Problems of Emergency Situations" is organized by the National University of Civil Defence of Ukraine (Ukraine, Kharkiv). This year, the representatives from the Odessa State Academy of Civil Engineering and Architecture (Ukraine, Odessa) were involved as partners. The purpose of the conference was to discuss issues related to the problems and prospects of the introduction of the latest developments and technologies aimed at preventing emergencies, minimizing their consequences in the field of civil defence, sharing experience and finding new facets of scientific cooperation, solving problems of emergencies that create a global threat to humanity.

Topics: Building Materials, Civil Engineering, Construction, Industrial Engineering, Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Accident Prevention, Aerosol, Alloy, Building Materials, Coating, Composite, Concrete, Dispersed Materials, Emergency, Environmental Protection, Equipment, Explosion Safety, Fire Extinguishing, Fire Resistance, Fire Safety, Hydrogel, Machines, Mechanical Properties, Nuclear Safety, Polymer, Radiation, Risk Management, Steel, Structural Element, Structural Mechanics, Structurally Inhomogeneous Materials, Surface Engineering, Wood

Prices: Print: **US\$ 290.00/ EUR 290.00**
eBook Single-User: **US\$ 198.00/ EUR 198.00**
eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0198-0
eBook: 978-3-0364-1198-9
582 pages, 2023

<https://www.scientific.net/978-3-0364-0198-0/book>



The 8th International Conference on Composite Materials and Material Engineering & 13th International Conference on Advanced Materials Research & 6th International Conference on Frontiers of Composite Materials

Volume in the series: 92

Aggregated Book

Edited by: Prof. Kazuo Umemura, Prof. Jong Hak Kim, Prof. Xiaohong Zhu and Prof. Alan Lau

This publication contains papers that were presented at the 8th International Conference on Composite Materials and Material Engineering (ICCMME 2023, January 6-8, 2023, Tokyo, Japan), 13th International Conference on Advanced Materials Research (ICAMR 2023, January 13-15, 2023, hybrid), and 6th International Conference on Frontiers of Composite Materials (ICFCM 2022, December 28-30, 2022, hybrid). The conference programs covered a wide range of topics related to modern materials science and materials processing technologies. This collection will be helpful to many researchers and engineers.

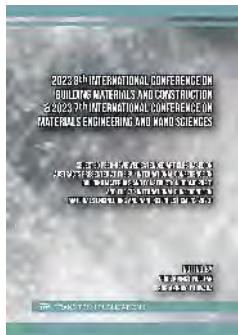
Topics: Building Materials, Materials Science, Mechanics, Nanoscience

Keywords: Additive Manufacturing, Asphalt Concrete, Biomass Conversion, Biomaterials, Ceramics, Composite, Electrochemical Cell, Electrochemistry, Failure Analysis, Furnace Slag, Materials Flaw Identification, Nanomaterials, Polymer, Polymer Electrolyte, Steel

Prices: Print: **US\$ 150.00/ EUR 150.00**
eBook Single-User: **US\$ 150.00/ EUR 150.00**
eBook Multi-User: **US\$ 263.00/ EUR 263.00**

Print: 978-3-0357-1855-3
eBook: 978-3-0357-3794-3
222 pages, 2023

<https://www.scientific.net/978-3-0357-1855-3/book>



2023 8th International Conference on Building Materials and Construction & 2023 7th International Conference on Materials Engineering and Nano Sciences

Volume in the series: 91

Aggregated Book

Edited by: Prof. Kiang Hwee Tan and Prof. Akihiko Fujiwara

The 8th International Conference on Building Materials and Construction (ICBMC 2023, Kyoto, Japan, online during March 17-20, 2023) and the 7th International Conference on Materials Engineering and Nano Sciences (ICMENS 2023, Chiba University, Chiba, Japan, online during April 7-10, 2023) were successful events with a strong academic atmosphere, which helped participants to exchange scientific and technological ideas. This edition is compiled from the results of these conferences and presents the latest research results on biopolymers, composite materials, chemical technologies, electro- and photochemistry, green building materials and structural mechanics.

Topics: Building Materials, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Biopolymers, Chemical Technology, Composite, Electrochemistry, Green Building Materials, Mechanical Properties, Nanoparticles, Natural Fiber, Photochemistry, Recycling, Structural Mechanics, Thin Films

Prices: Print: **US\$ 105.00/ EUR 105.00**
 eBook Single-User: **US\$ 105.00/ EUR 105.00**
 eBook Multi-User: **US\$ 184.00/ EUR 184.00**

Print: 978-3-0364-0253-6
 eBook: 978-3-0364-1253-5
 150 pages, 2023

<https://www.scientific.net/978-3-0364-0253-6/book>



7th International Conference on Material Engineering and Manufacturing & 6th International Conference on Materials Design and Applications

Volume in the series: 90

Aggregated Book

Edited by: Prof. Takashige Omatsu

The 7th International Conference on Material Engineering and Manufacturing (ICMEM 2023) and the 6th International Conference on Materials Design and Applications (ICMDA 2023) have been successfully held at the Chiba University, Chiba, Japan, April 7-10, 2023. This book comprises the selected peer-reviewed articles from the conferences to present the research results related to the latest advanced topics and trends in the fields of materials engineering, materials processing technologies and applications.

Topics: Materials Science, Nanoscience

Keywords: Alloy, Composite, Computational Materials Science, Electrostatic Discharge Machining, Mechanical Properties, Nanomaterials, Non-Destructive Testing, Phononic Crystal, Polymer, Recycling

Prices: Print: **US\$ 105.00/ EUR 105.00**
 eBook Single-User: **US\$ 105.00/ EUR 105.00**
 eBook Multi-User: **US\$ 184.00/ EUR 184.00**

Print: 978-3-0364-0254-3
 eBook: 978-3-0364-1254-2
 146 pages, 2023

<https://www.scientific.net/978-3-0364-0254-3/book>



3rd International Conference of Engineering Sciences

Volume in the series: 89

Aggregated Book

Edited by: Dr. Omar S. Dahham

This book contains the selected peer-reviewed articles that were presented at the 3rd International Conference of Engineering Sciences (ICES 2022), Baghdad, Iraq, held on December 14-15, 2022. This edition is dedicated to the latest research in materials science, chemical technologies, geotechnics, building materials, and laser engineering.

Topics: Building Materials, Construction, Materials Science, Mechanical Engineering

Keywords: Alloy, Asphalt, Biotechnology, Catalyst, Chemical Technology, Composite, Concrete, Engineering Design, Geotechnics, Laser, Mechanical Properties, Membrane Reactor, Nanomaterials, Steel, Structural Engineering, Wastewater Treatment

Prices: Print: **US\$ 145.00/ EUR 145.00**
 eBook Single-User: **US\$ 145.00/ EUR 145.00**
 eBook Multi-User: **US\$ 254.00/ EUR 254.00**

Print: 978-3-0364-0199-7
 eBook: 978-3-0364-1199-6
 198 pages, 2023

<https://www.scientific.net/978-3-0364-0199-7/book>



International Conference on Mechanical Structures and Smart Materials

Volume in the series: 88

Aggregated Book

Edited by: Dr. Nurul Hilwa Mohd Zini

2023 8th International Conference on Mechanical Structures and Smart Materials (ICMSSM2023) was held from the 8th to the 9th of July, 2023 in Bangkok, Thailand. The conference covered invited, oral, and poster presentations from scientists to establish platforms for collaborative research projects in the area of materials science, mechanical structures and functional and smart materials.

Topics: Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Composites, Electrical Conductivity, Flexural Properties, Functional Materials, Nanomaterials, Residual Stress, Steel, Structural Materials, Thermal Engineering, Wear Resistance, Welding

Prices: Print: **US\$ 65.00/ EUR 65.00**
 eBook Single-User: **US\$ 65.00/ EUR 65.00**
 eBook Multi-User: **US\$ 114.00/ EUR 114.00**

Print: 978-3-0357-2785-2
 eBook: 978-3-0357-3886-5
 112 pages, 2023

<https://www.scientific.net/978-3-0357-2785-2/book>



The International Congress on Educational Research, Materials Science and Engineering

Volume in the series: 87

Aggregated Book

Edited by: Prof. Abdelaziz El Moussaouy, Prof. Farid Falyouni, Prof. Hamid Magrez, Prof. Faouaz Jeffali, Prof. Driss Bria and Dr. Mohamed El Malki

The International Congress on Educational Research, Materials Science and Engineering (ICEMSE 2022) is organized by Mohammed First University - Oujda represented by the Laboratory of Materials, Waves, Energy and Environment (LaMon2E) in collaboration with other partners. The 2022 meeting was held on October 25-27, 2022, at Saïdia, Morocco. The general aim of the conference is to provide an opportunity for researchers and professionals from various fields with cross-disciplinary interests to bridge the knowledge gap, and to serve as a forum for interdisciplinary researchers in different areas related to the interaction between engineering, materials science, and education. The ICEMSE'2022 invited research papers that cover these topics. Throughout this event, a wide range of themes related to educational research, engineering, and materials science innovation were addressed and exposed. These days were animated by professors and researchers emeritus in the fields of conference topics in the form of Oral/Poster contributions, workshops, and round tables.

Topics: Materials Science, Nanoscience

Keywords: Adsorption, Ceramics, Dielectric Properties, Electrical Properties, Electromagnetic Filter, Environmental Protection, Liquid Chromatography, Low Dimensional Quantum Structure, Magnetic Properties, Quantum Dots, Solar Cell, Transition Metal Dichalcogenides, Wastewater Treatment

Prices: Print: **US\$ 180.00/ EUR 180.00**
 eBook Single-User: **US\$ 180.00/ EUR 180.00**
 eBook Multi-User: **US\$ 315.00/ EUR 315.00**

Print: 978-3-0364-0181-2
 eBook: 978-3-0364-1181-1
 320 pages, 2023

<https://www.scientific.net/978-3-0364-0181-2/book>



Innovative Technologies for Joining Advanced Materials, XIII

Volume in the series: 86

Aggregated Book

Edited by: Nicușor-Alin SÎRBU

This book includes the selected papers presented at the 13th International Conference: Innovative Technology for Joining Advanced Materials (TIMA 22) held in Timișoara, România, by videoconference, during November 24-25, 2022. The conference takes place every year and is traditionally organized by the National R&D Institute for Welding and Material Testing - ISIM Timișoara in cooperation with "Politehnica" University of Timișoara and Romanian Academy of Technical Science, Timișoara Branch.

Topics: Building Materials, Construction, Industrial Engineering, Materials Science, Mechanics

Keywords: Abrasive Waterjet Cutting, Additive Manufacturing, Alloy, Building Materials, Cavitation Erosion, Clinching, Composite, Corrosion, Electrical Discharge Deposition, Engineering Education, Friction Stir Welding, Joining, Laser Welding, Mechanical Properties, Microstructure, Nanomaterials, Polymer, Steel, Welded Connection, Welding

Prices: Print: **US\$ 320.00/ EUR 320.00**
 eBook Single-User: **US\$ 198.00/ EUR 198.00**
 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0041-9
 eBook: 978-3-0364-1041-8
 480 pages, 2023

<https://www.scientific.net/978-3-0364-0041-9/book>



10th Manufacturing Engineering Society International Conference (MESIC)

Volume in the series: 85

Aggregated Book

Edited by: Prof. Domingo Morales-Palma, Prof. Andrés J. Martínez-Donaire, Prof. Marcos Borrego Puche, Prof. Gabriel Centeno Báez and Prof. Carpofofo Vallengano

This book contains full text peer-reviewed papers presented at the 10th Manufacturing Engineering Society International Conference (MESIC 2023) held in Sevilla (Spain) from 28 to 30 June 2023 and covers a wide range of research results and engineering solutions on the topics of advances and innovations in manufacturing processes, additive manufacturing, trends in manufacturing systems and automation, metrology and quality in manufacturing, Industry X.0 and digital manufacturing, as well as manufacturing engineering in society. This publication will be helpful to many researchers and engineers in the industrial area.

Topics: General Engineering, Industrial Engineering, Information Technologies, Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Additive Manufacturing, Alloy, Automation, Composite, Design, Digital Manufacturing, Engineering Education, Engineering Management, History of Technology, Industrial Equipment, Industrial Heritage, Industrial Measurements, Manufacturing Parameters, Mechanical Properties, Mechatronics, Metalworking, Metrology, Polymer, Processing Technology, Product Design, Product Quality Control, Rapid Prototyping, Reverse Engineering, Robotics, Steel, Tool

Prices: Print: **US\$ 590.00/ EUR 590.00** Print: 978-3-0364-0145-4
eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0364-1145-3
eBook Multi-User: **US\$ 347.00/ EUR 347.00** 1444 pages, 2023

<https://www.scientific.net/978-3-0364-0145-4/book>



6th International Conference on Functional Materials Science

Volume in the series: 84

Aggregated Book

Edited by: Prof. Agustinus Agung Nugroho, Prof. Darminto Darminto and Prof. Risdiana Risdiana

The 6th International Conference on Functional Materials Science 2022 (6th ICFMS 2022) is the sixth activities for gathering and discussing some research in materials sciences. The main theme of the ICFMS 2022 was "Trend in Functional Materials: From Fundamental to Applications". This conference was organized by the Institut Teknologi Sepuluh Nopember (ITS) together with Padjadjaran University, Bandung Institute of Technology (ITB), University of Indonesia (UI), and Gadjah Mada University (UGM). This conference aimed to improve and continue communication among researchers in materials sciences and related fields. The scope of experimental results presented in ICFMS 2022 is in the range of materials sciences including Advanced and Functional Materials, Energy Conversion, Materials and Devices, New Materials for Energy, Biomaterials, Theoretical/Modeling/Computer Simulations of Functional Materials, Spectroscopy for Advanced Materials, Hybrid and Composite Materials and Magnetic Materials.

Topics: Bioscience and Medicine, Building Materials, Materials Science, Nanoscience

Keywords: Aluminum Casting, Biomaterials, Carbon Materials, Ceramics, Composite, Computational Materials Science, Concrete, Electrical Properties, Electrode Materials, Electrolytes, Environmental Protection, Food Waste, Graphene, Graphene Oxide, Hydrogel, Hydroxyapatite, Magnetic Properties, Nanomaterials, Nanoparticles, Natural Dolomite, Photocatalyst, Polymer, Porous Ceramic Filter, Solar Cell, Superconductor, Surface Modification, Thermal Decomposition, Titanium Dioxide, Zirconia

Prices: Print: **US\$ 280.00/ EUR 280.00** Print: 978-3-0364-0174-4
eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0364-1174-3
eBook Multi-User: **US\$ 347.00/ EUR 347.00** 382 pages, 2023

<https://www.scientific.net/978-3-0364-0174-4/book>



Asia-Pacific Conference on Silicon Carbide and Related Materials 2022

Volume in the series: 83

Aggregated Book

Edited by: Yichen Liu, Heng Yu Xu and Ying Xi Niu

Full-text papers selected by peer review from the submissions to the Asia Pacific Conference on Silicon Carbide and Related Materials (APCSR 2022, November 14-16, 2022, Xuzhou, China) and presented in this book cover cutting-edge research on silicon carbide and related materials in the direction of materials, devices, and applications.

Topics: Electronics, Materials Science, Nanoscience

Keywords: Electrical Properties, Gate Oxide Breakdown, Integrated Circuit Packaging, MOS Capacitor, MOSFET, Power Device, Power Electronics, Silicon Carbide

Prices: Print: **US\$ 80.00/ EUR 80.00** Print: 978-3-0364-0053-2
eBook Single-User: **US\$ 80.00/ EUR 80.00** eBook: 978-3-0364-1053-1
eBook Multi-User: **US\$ 140.00/ EUR 140.00** 104 pages, 2023

<https://www.scientific.net/978-3-0364-0053-2/book>



Symposium of Life Sciences, Materials, and Applied Chemistry

Volume in the series: 82

Aggregated Book

Edited by: Dr. Adhi Dwi Hatmanto, Dr. Ahmad Kusumaatmaja, Dr. Fajar Inggit Pambudi, Dr. Muhammad Idham Darussalam Mardjan, Dr. Robby Noor Cahyono and Dr. Taufik Abdillah Natsir

This book is a collection of selected and reviewed papers presented at the Symposium of Materials Science and Chemistry. This symposium was part of the 8th International Conference on Science and Technology 2022, held on September 7-8, 2022, hosted by Universitas Gadjah Mada, Yogyakarta, Indonesia. The collection offers the readers the latest research results from the particular areas of analytical, environmental, and green chemistry, biomaterials, condensed materials, molecular sieves and applications, nanomaterials, nanotechnology, organic chemistry and life sciences, organic polymers, physical and theoretical chemistry, and zeolites.

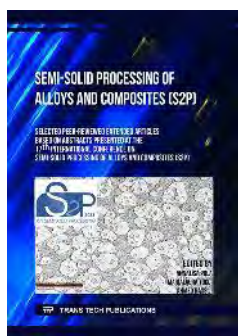
Topics: Bioscience and Medicine, Materials Science, Nanoscience

Keywords: Absorption, Biomass Processing, Biosynthesis, Cellulose, Dye Degradation, Functional Materials, Heavy Metals, Nanoparticles, Nanosilica, Pharmacology, Photodegradation, Physical Chemistry, Phytochemistry, Wastewater Treatment

Prices: Print: **US\$ 180.00/ EUR 180.00**
 eBook Single-User: **US\$ 180.00/ EUR 180.00**
 eBook Multi-User: **US\$ 315.00/ EUR 315.00**

Print: 978-3-0364-0084-6
 eBook: 978-3-0364-1084-5
 284 pages, 2023

<https://www.scientific.net/978-3-0364-0084-6/book>



Semi-Solid Processing of Alloys and Composites (S2P)

Volume in the series: 81

Aggregated Book

Edited by: Annalisa Pola, Marialaura Tocci and Ahmed Rassili

The present edition of the International Conference on Semi-Solid Processing of Alloys and Composites (S2P) is the 17th of a series of conferences on semisolid processing of metals and composites started in 1990 in France. The topics of interest are many: development of innovative materials and composites, microstructural and mechanical characterization, semi-solid material preparation and related technologies, modelling and simulation, industrial applications, interactions between semisolid processing and additive manufacturing. As known, semisolid processing is a foundry process in which the mold is filled with partially solid metal, instead of liquid metal. This allows to avoid a turbulent flow of the liquid metal, leading to lower porosities due to gas entrapment, while ensuring optimum filling of the die, even when thin walls are present. Also, shrinkage porosities are reduced since the alloy is partially solid during the mold filling. These features, typical only of semisolid processing, are gaining new interest, for instance, for the production of heat sinks with complex geometries and thin walls as the one used in electric vehicles. In addition, mechanical properties are improved, as well as the corrosion and wear resistance, due to the peculiar globular microstructure, resulting in the possibility to manufacture high-performance structural components. At the same time, the metal fills the die at a lower temperature than in conventional foundry process, resulting in a prolonged lifetime of the die. Last but not least, the surface finish of these castings is extremely good. The conference has been organized by the Italian Association of Metallurgy (AIM) and the University of Brescia (Italy).

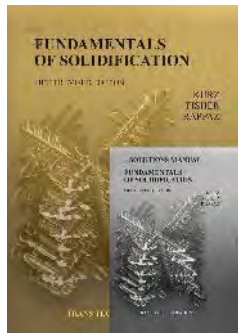
Topics: Materials Science

Keywords: Alloy, Composite, Die Casting, Extruding, Mechanical Properties, Microstructure, Modelling, Phase Transformation, Rheocasting, Rheology, Semi-Solid Processing, Thixomolding

Prices: Print: **US\$ 245.00/ EUR 245.00**
 eBook Single-User: **US\$ 198.00/ EUR 198.00**
 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0180-5
 eBook: 978-3-0364-1180-4
 298 pages, 2023

<https://www.scientific.net/978-3-0364-0180-5/book>



Fundamentals of Solidification 5th edition with Solutions Manual

Volume in the series: 80

Edited by: Prof. Wilfried Kurz, Dr. David J. Fisher and Prof. Michel Rappaz

Since the 4th 1998 edition, there have been numerous crucial advances to the modelling and the basic understanding of solidification phenomena, and with its linking to experimental results. These topics have been incorporated into this 5th Fully Revised Edition, as well as a new final chapter on microstructure selection which explains how to combine the concepts of the preceding chapters for modelling real microstructures, in complex processes such as additive manufacturing.

This new 5th edition is of high interest to undergraduate and graduate levels and professionals.

With its numerous new topics - also borne out by the new authorship - students and teachers, scientists and engineers will greatly benefit from this new book. The topics are presented in the same praised manner as in previous editions, readable at three levels:

- an initial feel for the subject is obtained by consulting the figures and their detailed captions;
- a deeper understanding of the underlying physics is found by working through the main text;
- 15 appendices offer a detailed analysis of the various theories, by providing detailed derivations of the relevant equations.

Particularly Novel: the final chapter 8 on *microstructure-selection* explains how to combine the concepts of the preceding chapters to model the real microstructures formed during complex processes such as additive manufacturing, and the new detailed *phase-field* appendix which opens the door to the accurate computer-modelling of growth-forms.

This edition goes with a companion *Solutions Manual* offering model solutions to 133 problems (exercises).

Topics: Materials Science

Keywords: Alloy Dendrite, Cast Iron (Fe-C), Cellular Interface, Columnar Dendrite, Columnar Zone, Concentration Gradient, Constitutional Undercooling, Cooling Rate, Curvature, Curvature Undercooling, Dendrite Growth Rate, Dendrite Spacing, Dendrite Tip, Dendrite Tip Radius, Diffuse Interface, Diffusion Coefficient, Diffusion Coupled Growth, Diffusion in Liquids, Diffusion Length, Directional Growth, Distribution Coefficient, Equiaxed Dendrite, Eutectic Al-Si, Extremum Growth Criterion, Fluid Flow, Flux Balance, Gibbs Free Energy, Gibbs-Thomson Effect, Growth Defects, Heat Flux, Interface Curvature, Interface Perturbation, Lever Rule, Local Equilibrium, Mass Balance, Microscopic Solvability, Non-Faceted Interface, Nucleation Critical Radius, Nucleation Rate, Nucleation Undercooling, Phase Diagram, Rapid Solidification, Solute Boundary Layer, Steady State, Steady-State Solidification, Temperature Gradient, Volume Fraction Eutectic

Prices: Print: **US\$ 70.00/ EUR 70.00** Print: 978-3-0364-0358-8
 eBook Single-User: **US\$ 190.00/ EUR 190.00** eBook: 978-3-0364-1358-7
 eBook Multi-User: **US\$ 330.00/ EUR 330.00** 456 pages, 2023

<https://www.scientific.net/978-3-0364-0358-8/book>



Dielectric, Supercapacitive, Photoluminescent Properties of Hybrid Metal Organic Frameworks

Volume in the series: 79

Aggregated Book

Edited by: Dr. Vinayak Adimule and Dr. Rajendrachari Shashanka

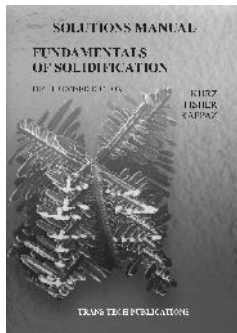
This book reflects novel aspects in the study of functional properties and practical applications of metal-organic frameworks (MOFs) and some special nanomaterials. The unique optical and photoluminescence features, the possibility for use in energy storage and biosensing for detection of various biomolecules, usage in heterogeneous catalysis, etc. are defining their wide applications in various branches of science and engineering. Many of the topics covered in this collection are devoted also to investigating the effect of varying temperatures on enhancing photoluminescence, and dielectric and electrochemical features of these materials. Many articles focus on the synthesis of novel series of MOFs, and functional nanocomposite materials used for the synthesis of hybrid supercapacitors. Most of the here-presented articles are first-time reported experimental work. This book will be helpful to specialists in biosensing, photoluminescent materials, supercapacitors, and electrical and electronic fields.

Topics: Materials Science, Nanoscience

Keywords: Catalytic Properties, Dielectric Properties, Electrochemical Properties, Hybrid Metal-Organic Framework, Metal-Organic Framework, Nanocomposite, Nanoparticles, Optical Properties, Photoluminescence, Supercapacitor, Synthesis

Prices: Print: **US\$ 155.00/ EUR 155.00** Print: 978-3-0364-0132-4
 eBook Single-User: **US\$ 155.00/ EUR 155.00** eBook: 978-3-0364-1132-3
 eBook Multi-User: **US\$ 271.00/ EUR 271.00** 132 pages, 2023

<https://www.scientific.net/978-3-0364-0132-4/book>



Fundamentals of Solidification 5th edition - Solutions Manual

Volume in the series: 78

Edited by: Prof. Wilfried Kurz, Dr. David J. Fisher and Prof. Michel Rappaz

Solutions Manual is a companion book to the *Fundamentals of Solidification 5th edition* offering model solutions to 133 problems (exercises). The 5th edition of *Fundamentals of Solidification* (2023) includes new contributions on phase-field modelling and a new 8th Chapter on microstructure selection. It explains how to combine the concepts of the seven preceding chapters of the book so as to model the real microstructures that form during complex processes such as additive manufacturing ... which are still a challenge or are out of reach of numerical simulation. This *Solutions Manual*, together with the 5th edition of the main text, will offer its readership a good start in the field, and prepare them for tackling more involved treatments of solidification. The main book *Fundamentals of Solidification 5th fully revised edition* is available separately.

Topics: Materials Science

Keywords: Alloy Dendrite, Cast Iron (Fe-C), Cellular Interface, Columnar Dendrite, Columnar Zone, Concentration Gradient, Constitutional Undercooling, Cooling Rate, Curvature, Curvature Undercooling, Dendrite Growth Rate, Dendrite Spacing, Dendrite Tip, Dendrite Tip Radius, Diffuse Interface, Diffusion Coefficient, Diffusion Coupled Growth, Diffusion in Liquids, Diffusion Length, Directional Growth, Distribution Coefficient, Equiaxed Dendrite, Eutectic Al-Si, Extremum Growth Criterion, Fluid Flow, Flux Balance, Gibbs Free Energy, Gibbs-Thomson Effect, Growth Defects, Heat Flux, Interface Curvature, Interface Perturbation, Lever Rule, Local Equilibrium, Mass Balance, Microscopic Solvability, Non-Faceted Interface, Nucleation Critical Radius, Nucleation Rate, Nucleation Undercooling, Phase Diagram, Rapid Solidification, Solute Boundary Layer, Steady State, Steady-State Solidification, Temperature Gradient, Volume Fraction Eutectic

Prices: Print: **US\$ 27.50/ EUR 27.50**
 eBook Single-User: **US\$ 80.00/ EUR 80.00**
 eBook Multi-User: **US\$ 140.00/ EUR 140.00**

Print: 978-3-0364-0142-3
 eBook: 978-3-0364-1142-2
 84 pages, 2023

<https://www.scientific.net/978-3-0364-0142-3/book>



The 9th International Conference on Mechanics, Materials and Manufacturing

Volume in the series: 77

Aggregated Book

Edited by: Prof. Ian McAndrew

The book comprises peer-reviewed papers from the 2022 9th International Conference on Mechanics, Materials and Manufacturing (ICMM 2022) held from August 26-28, 2022 in Washington, USA. ICMM aims to provide a platform for scholars, engineers, and scientists to present robust research demonstrating the expanding frontiers in mechanics, materials and manufacturing. The topics covered in this book include new composite and polymer materials and analysis of their properties, advanced engineering materials and their applications, materials processing, forming and manufacturing technology, engineering mechanics and computational mechanics.

Topics: Building Materials, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Additive Manufacturing, Alloy, Buildings Materials, Composite, Concrete, Mechanical Engineering, Mechanical Properties, Modeling, Polymer

Prices: Print: **US\$ 75.00/ EUR 75.00**
 eBook Single-User: **US\$ 75.00/ EUR 75.00**
 eBook Multi-User: **US\$ 131.00/ EUR 131.00**

Print: 978-3-0357-1710-5
 eBook: 978-3-0357-3670-0
 134 pages, 2023

<https://www.scientific.net/978-3-0357-1710-5/book>



5th EPI International Conference on Science and Engineering (EICSE)

Volume in the series: 76

Aggregated Book

Edited by: Dr. Faisal Mahmuddin

This book presents the latest research results in materials science, engineering science, and technology which were introduced at the 5th EPI International Conference on Science and Engineering 2021, Indonesia. The edition will be interesting and useful to researchers and engineers from materials science, microelectronics, mechanical engineering, civil engineering and architecture.

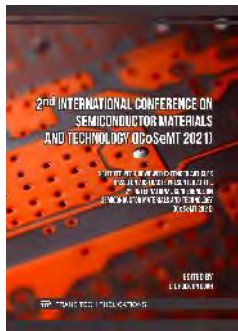
Topics: Building Materials, Civil Engineering, Construction, Electronics, Materials Science, Mechanics

Keywords: 3D Printing, Alloy, Building Materials, Composite, Conductive Glass, Electrical Discharge Machining, Heat Treatment, Mechanical Properties, Polymer, Quenching, Solar Cell, Steel, Structural Mechanics, Welding

Prices: Print: **US\$ 190.00/ EUR 190.00**
 eBook Single-User: **US\$ 190.00/ EUR 190.00**
 eBook Multi-User: **US\$ 333.00/ EUR 333.00**

Print: 978-3-0357-2772-2
 eBook: 978-3-0357-3838-4
 288 pages, 2023

<https://www.scientific.net/978-3-0357-2772-2/book>



2nd International Conference on Semiconductor Materials and Technology (ICoSeMT 2021)

Volume in the series: 75

Aggregated Book

Edited by: Dr. Hock Jin Quah

This book consists of the selected articles by authors who participated in the 2nd International Conference on Semiconductor Materials and Technology (ICoSeMT 2021, 8-9 November 2021, Malaysia), which ensured that all manuscripts underwent a peer review process. This conference edition aimed to provide insight into the recent advancement and development in the area of optical and electronic materials, optoelectronics and electronics devices, organic and polymeric materials, and packaging technology. The structural, optical, chemical, electrical, and sensing characteristics of various types of semiconductor materials in the form of thin films and nanostructures have been reported in this book. Simulation and experimental studies regarding metal-oxide-semiconductor-based devices, high electron mobility transistors, and other devices are also presented.

Topics: Electronics, Materials Science, Nanoscience

Keywords: Composite, Dielectric Properties, Electrical Properties, Etching, Graphene, Microwave Absorption, MOSFET, Nanocatalyst, Nanocomposite, Nanomaterials, Nanoparticle, Optical Properties, Packaging, Polymer, Quantum Dots, Semiconductor, Sensor, Thin Film

Prices: Print: **US\$ 175.00/ EUR 175.00**
 eBook Single-User: **US\$ 175.00/ EUR 175.00**
 eBook Multi-User: **US\$ 306.00/ EUR 306.00**

Print: 978-3-0364-0006-8
 eBook: 978-3-0364-1006-7
 252 pages, 2023

<https://www.scientific.net/978-3-0364-0006-8/book>



3rd International Conference on Structural Engineering and Materials

Volume in the series: 74

Aggregated Book

Edited by: Prof. Dong Keon Kim

This book contains articles that were presented at the annual International Conference on Structural Engineering and Materials (ICSEM 2022, Jeju Island, South Korea) during October 14-16, 2022. Published articles cover research results in the area of materials science and materials processing technologies in the various branches of modern industry. The publication will be interesting and useful to many engineers, academics and also to students.

Topics: Building Materials, Civil Engineering, Construction, Environmental Engineering, Information Technologies, Materials Science, Mechanics

Keywords: Absorbent, Architectural Design, Building Materials, Ceramics, Composite, Concrete Additive, Ecological Safety, Polymer, Structural Mechanics, Wastewater

Prices: Print: **US\$ 125.00/ EUR 125.00**
 eBook Single-User: **US\$ 125.00/ EUR 125.00**
 eBook Multi-User: **US\$ 219.00/ EUR 219.00**

Print: 978-3-0357-1875-1
 eBook: 978-3-0357-3875-9
 172 pages, 2023

<https://www.scientific.net/978-3-0357-1875-1/book>



The 5th International Conference on Mechanical Engineering and Applied Composite Materials

Volume in the series: 73

Aggregated Book

Edited by: Prof. Katsuyuki Kida and Prof. Kunjie Yuan

The 5th International Conference on Mechanical Engineering and Applied Composite Materials (MEACM2022) was held on December 28-29, 2022, in Beijing, China (virtual). The conference program covered invited, oral, and poster presentations from scientists working in similar areas to establish platforms for collaborative research projects in this field. This conference brought together leaders from materials and mechanical engineering to exchange and share their experiences, present research results, explore collaborations and spark new ideas, set up new projects and exploit new technology in these fields.

Topics: Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Alloy, Bearing, Ceramics, Composite, Crack Growing, Fatigue, Fracture Surface, Mechanical Engineering, Mechanical Properties, Mechanics of Materials, Microstructure, Nanometric Cutting, Polymer, Rolling Contact Fatigue, Single Point Incremental Forming, Steel, Tensile Cyclic Loading, Tribology

Prices: Print: **US\$ 65.00/ EUR 65.00**
 eBook Single-User: **US\$ 65.00/ EUR 65.00**
 eBook Multi-User: **US\$ 114.00/ EUR 114.00**

Print: 978-3-0364-0029-7
 eBook: 978-3-0364-1029-6
 98 pages, 2023

<https://www.scientific.net/978-3-0364-0029-7/book>



The 4th International Conference on Science and Technology Applications

Volume in the series: 72

Aggregated Book

Edited by: Bornok Sinaga, Dr. Juniastel Rajagukguk, Dr. R. Rajaramakrishna, Dr. Topan Setiadipura, Dr. Mati Horprathum and Dr. Saronom Silaban

In this book, the reader will find some of the latest research results in the field of engineering science and materials application which were presented at the 4th International Conference on Science and Technology Applications (ICoSTA, November 1-2, 2022, Medan, Indonesia).

Synthesis techniques, process characterization and structural analysis of several types of materials such as nanocomposites and optical materials are interesting discussions that are specifically comprised here in one of the chapters. Special chapters related to research on natural materials and fundamental science related to the observation of physical properties, etc. are also presented in this book.

The book will be helpful to a wide range of specialists in the field of material sciences, mechanical engineering, construction, environmental protection, applied mechanics and signal and image processing.

Topics: Bioscience and Medicine, Building Materials, Civil Engineering, Construction, General Engineering, Information Technologies, Materials Science, Mechanical Engineering, Mechanics

Keywords: Biotechnology, Building Materials, Composite, Construction Technology, Data Processing, Glass, Image Processing, Measurement, Nuclear Reactor, Optical Materials, Plant Cultivation, Polymer, Sensor, Steel, Structural Mechanics, Thermal Energy Equipment, Welding

Prices: Print: **US\$ 210.00/ EUR 210.00**
eBook Single-User: **US\$ 198.00/ EUR 198.00**
eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0137-9
eBook: 978-3-0364-1137-8
342 pages, 2023

<https://www.scientific.net/978-3-0364-0137-9/book>



14th International Conference on Sustainable Green Construction and Nano-Technology, NTC-2023

Volume in the series: 71

Aggregated Book

Edited by: Prof. Sayed Shebl, Prof. Magdy Helal and Hamada Shoukry

The presented book contains selected papers presented at the 14th international conference on "Sustainable Green Construction and Nano-Technology, NTC-2023" which was held in Sharm El-Sheikh, Egypt, on 03-07 March 2023 and was organized by the Housing and Building National Research Center (HBRC) jointly with the Egyptian Russian University (ERU) and Kalashnikov Izhevsk State technical university (ISTU). NTC 2023 was organized to discuss and highlight the application of recent research results in the field of green sustainable construction and nano-technology applications to provide an opportunity for scientists and industry experts to exchange ideas and experience.

Topics: Building Materials, Civil Engineering, Construction, Materials Science, Mechanics, Nanoscience

Keywords: Aggregate, Building Design, Building Materials, Cement, Clay, Concrete, Green Synthesis, Limestone, Mechanical Properties, Mortar, Nanocomposite, Nanoparticles, Nanotubes, Reinforcement, Solid Waste, Steel, Structural Element, Structural Health Monitoring

Prices: Print: **US\$ 190.00/ EUR 190.00**
eBook Single-User: **US\$ 190.00/ EUR 190.00**
eBook Multi-User: **US\$ 333.00/ EUR 333.00**

Print: 978-3-0364-0173-7
eBook: 978-3-0364-1173-6
272 pages, 2023

<https://www.scientific.net/978-3-0364-0173-7/book>



5th International Conference on Materials Science and Industrial Applications (MSIA 2023)

Volume in the series: 70

Aggregated Book

Edited by: Dr. Zhibin You and Dr. Zhigang Fang

The 5th International Conference on Materials Science and Industrial Applications (MSIA 2023, January 12-13, 2023 in Xi'an, China) aimed to bring together leading academic scientists and researchers to exchange and share their experiences and research results on many aspects of applied materials science and industrial applications of materials.

Topics: Materials Science, Mechanics

Keywords: Alloy, Battery, Chemical Engineering, Coating, Composite, Electrode Materials, Fatigue, Mechanical Properties, Polymer, Steel, Strength of Materials, Tribological Properties

Prices: Print: **US\$ 95.00/ EUR 95.00**
eBook Single-User: **US\$ 95.00/ EUR 95.00**
eBook Multi-User: **US\$ 166.00/ EUR 166.00**

Print: 978-3-0364-0071-6
eBook: 978-3-0364-1071-5
146 pages, 2023

<https://www.scientific.net/978-3-0364-0071-6/book>



11th International Conference on Material Science and Engineering Technology and 11th International Conference on Nanostructures, Nanomaterials and Nanoengineering

Volume in the series: 69

Aggregated Book

Edited by: Prof. Ramesh K. Agarwal, Prof. Hao Gong and Prof. Kazuo Umemura

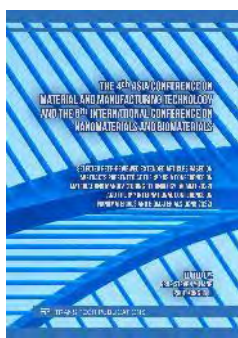
This book presents selected articles from the 2022 11th International Conference on Material Science and Engineering Technology (ICMSET 2022) and the 11th International Conference on Nanostructures, Nanomaterials and Nanoengineering 2022 (ICNNE 2022) that were held as a hybrid (Tokyo, Japan and online) event on November 26-28, 2022. The collected papers are devoted to the recent state of research in the area of applied materials. These findings will be valuable and helpful to researchers and engineers in their future investigations.

Topics: Building Materials, Electronics, Materials Science, Nanoscience

Keywords: Alloy, Building Materials, Ceramics, Composite, Green Synthesis, Materials Chemistry, Mechanical Properties, Microstructure, Nanomaterials, Polymer, Quantum Dot, Solid Mechanics, Steel

Prices: Print: **US\$ 135.00/ EUR 135.00** Print: 978-3-0357-1838-6
 eBook Single-User: **US\$ 135.00/ EUR 135.00** eBook: 978-3-0357-3721-9
 eBook Multi-User: **US\$ 236.00/ EUR 236.00** 196 pages, 2023

<https://www.scientific.net/978-3-0357-1838-6/book>



The 4th Asia Conference on Material and Manufacturing Technology and the 6th International Conference on Nanomaterials and Biomaterials

Volume in the series: 68

Aggregated Book

Edited by: Prof. Steven Y. Liang and Prof. Zongjin Li

This book contains papers submitted to and selected from the 4th Asia Conference on Material and Manufacturing Technology (ACMMT 2022) and the 6th International Conference on Nanomaterials and Biomaterials (ICNB 2022). All papers were subjected to peer review by conferences committee members and international reviewers. The papers were selected based on their quality and relevance to the conferences' topics. There are present recent research results in the field of composites, metal alloy materials and technologies of their processing, materials for biomedical applications, nanoscale materials and green building materials, etc.

Topics: Bioscience and Medicine, Building Materials, Civil Engineering, Construction, Materials Science, Mechanical Engineering

Keywords: 3D-Printing, Alloy, Bioceramics, Biomaterials, Building Materials, Ceramics, Coating, Composite, Forging, Forming, Liquid Crystal, Mechatronics, Metal, Nanoparticles, Polymer, Steel, Thin Film, Wire Arc Spray

Prices: Print: **US\$ 160.00/ EUR 160.00** Print: 978-3-0364-0201-7
 eBook Single-User: **US\$ 160.00/ EUR 160.00** eBook: 978-3-0364-1201-6
 eBook Multi-User: **US\$ 280.00/ EUR 280.00** 238 pages, 2023

<https://www.scientific.net/978-3-0364-0201-7/book>



The 10th International Conference on Materials Science

Volume in the series: 67

Aggregated Book

Edited by: Jav Davaasambuu, Dr. Galsan Sevjiduren and Dr. Tsogbayar Tsednee

This book contains peer-reviewed papers presented at the 10th International Conference on Materials Science (ICMS2021) held in Ulaanbaatar, Mongolia, on November 19-20, 2021, focusing on the study of structure, properties, and applications of new materials as well as techniques of materials characterization. The conference was organized by the Mongolian Physical Society, the National University of Mongolia, the Mongolian Academy of Sciences, Inner Mongolia Normal University (China), and the Institute of Physical Material Science, SB RAS (Russia).

Topics: Environmental Engineering, Materials Science, Nanoscience

Keywords: Absorption, Alloy, Anode Material, Bimetallic Nanocatalyst, Condensed Matter Physics, Electronic Structure, Magnetization Dynamics, Molecular Structure, Photoluminescence Properties, Photophysical Properties, Quantum Well, Sol-Gel Synthesis, Solid Electrolyte, Steel, Thin Film

Prices: Print: **US\$ 120.00/ EUR 120.00** Print: 978-3-0357-1702-0
 eBook Single-User: **US\$ 120.00/ EUR 120.00** eBook: 978-3-0357-2312-0
 eBook Multi-User: **US\$ 210.00/ EUR 210.00** 196 pages, 2023

<https://www.scientific.net/978-3-0357-1702-0/book>



The 4th International Scientific Conference of Alkafeel University

Volume in the series: 66

Aggregated Book

Edited by: Prof. Ali Jasim Ramadhan and Prof. Nawras Al-Dahan

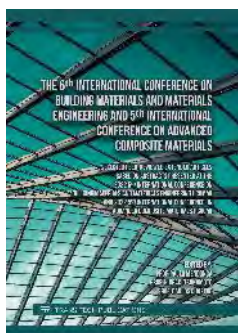
The 4th International Scientific Conference of Alkafeel University "ISCKU2022" took place in Al-Najaf Al-Ashraf (Iraq), during December 20-21, 2022. ISCKU2022 is an annual conference that aims to bring participants together from academic, engineering, and government institutions worldwide to attend the conference, share field trial experiences and lessons with other enthusiasts, exchange novel ideas, discuss innovative fields and explore enabling technologies for a variety of applications. ISCKU2022 has been an active platform that provides participants with ample opportunities to establish research relationships, find partners for future collaboration, and develop opportunities for cooperation.

Topics: Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Ceramics, Composite, Environmental Protection, Heat Transfer, Mass Transfer, Nanomaterials, Nanoparticle, Photovoltaics, Polymer, Semiconductor, Thermodynamics, Thin Film

Prices: Print: **US\$ 190.00/ EUR 190.00** Print: 978-3-0364-0148-5
 eBook Single-User: **US\$ 190.00/ EUR 190.00** eBook: 978-3-0364-1148-4
 eBook Multi-User: **US\$ 333.00/ EUR 333.00** 248 pages, 2023

<https://www.scientific.net/978-3-0364-0148-5/book>



The 6th International Conference on Building Materials and Materials Engineering and 5th International Conference on Advanced Composite Materials

Volume in the series: 65

Aggregated Book

Edited by: Prof. Paulo Mendonça, Prof. Hideaki Tsukamoto and Prof. Carlos Chastre

This book is compiled by results of the 6th International Conference on Building Materials and Materials Engineering (ICBMM 2022) and the 5th International Conference on Advanced Composite Materials (ICACM 2022).

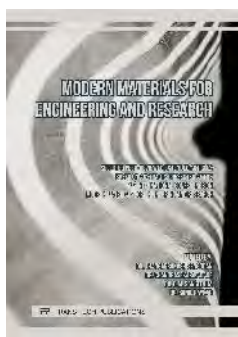
The covered topics include composite materials and structures, biomedical materials and nanostructures for medical applications, metal processing and forming, concrete materials and geopolymer mortars, advanced building materials and properties, structural engineering materials and structural mechanics.

Topics: Bioscience and Medicine, Building Materials, Civil Engineering, Construction, Materials Science, Mechanics

Keywords: Alloy, Biomaterials, Biomedical Engineering, Building Materials, Cladding, Composite, Concrete, Construction Waste, Geotechnics, Mechanical Properties, Mortar, Soil, Structural Element, Structural Mechanics

Prices: Print: **US\$ 175.00/ EUR 175.00** Print: 978-3-0364-0013-6
 eBook Single-User: **US\$ 175.00/ EUR 175.00** eBook: 978-3-0364-1013-5
 eBook Multi-User: **US\$ 306.00/ EUR 306.00** 238 pages, 2023

<https://www.scientific.net/978-3-0364-0013-6/book>



Modern Materials for Engineering and Research

Volume in the series: 64

Aggregated Book

Edited by: Dr. Thangaprakash Sengodan, Dr. Chandrasekara Adake, Dr. D.M. Sangeetha and Dr. Sunil Raykar

This book collected research articles to promote the integration of advanced areas in Materials Science and Engineering. The field of advanced engineering and physical materials has not only helped the development of various fields in science and technology but also contributes to the improvement of the quality of human life to a great extent. The main focus of the publication is on state-of-the-art technologies and advances in engineering materials and physical sciences. The collected articles were presented at the First International Conference on Modern Materials for Engineering and Research (ICMMER 2022, 29–30 September 2022, Tiruchengode, Tamil Nadu, India).

Topics: Materials Science, Nanoscience

Keywords: Alloy, Casting, Coating, Composite, Corrosion Inhibition, Dielectric Properties, Mechanical Properties, Microstructure, Nanoparticles, Optical Properties, Polymer, Quantum Dot, Semiconductor, Steel, Thin Film, Welding

Prices: Print: **US\$ 245.00/ EUR 245.00** Print: 978-3-0357-1758-7
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3758-5
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 388 pages, 2023

<https://www.scientific.net/978-3-0357-1758-7/book>



The 6th International Conference on Advanced Materials and Engineering Structural Technology

Volume in the series: 63

Aggregated Book

Edited by: Prof. Mosbeh Kaloop

The primary objective of the 6th International Conference on Advanced Materials and Engineering Structural Technology (6th ICAMEST 2022, Jeju Island, South Korea, November 18-20, 2022) is to provide a world-class forum for exchanging original ideas and new information as well as discuss the latest research results in the field of materials science and advanced technologies.

Topics: Building Materials, Civil Engineering, Construction, Industrial Engineering, Materials Science, Mechanics, Nanoscience

Keywords: Alloy, Biomaterials, Construction Project, Nanomaterials, Photogrammetry, Polymer, Structural Mechanics

Prices: Print: **US\$ 30.00/ EUR 30.00**

Print: 978-3-0364-0140-9

eBook Single-User: **US\$ 30.00/ EUR 30.00**

eBook: 978-3-0364-1140-8

eBook Multi-User: **US\$ 53.00/ EUR 53.00**

58 pages, 2023

<https://www.scientific.net/978-3-0364-0140-9/book>



International Conference on The Future Sustainable Energy

Volume in the series: 62

Aggregated Book

Edited by: Dr. Azher M. Abed, Dr. Ammar Abdulkadhim Fathi and Dr. Abdullah Kadhim

The aim of the First International Conference on The Future Sustainable Energy (ICFSE 2023) was to create a platform for efficient discussion of coherent and coordinated ways of developing new and renewable energy resources of the region and providing access to them for all and to capture the substantial role that clean energy technology plays in addressing many challenges in modern society. The ICFSE 2023 successfully took place on March 1-2, 2023, at Al-Mustaqbal University College (MUC), Iraq.

Topics: Materials Science, Mechanical Engineering, Mechanics

Keywords: Activated Carbon, Alloy, Fuel Cell, Heat Transfer, Membrane, Nanofluid, Steel, Waste Conversion

Prices: Print: **US\$ 45.00/ EUR 45.00**

Print: 978-3-0364-0204-8

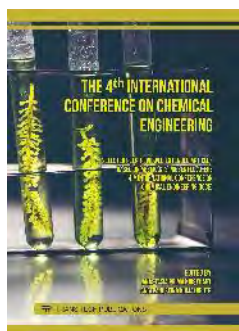
eBook Single-User: **US\$ 45.00/ EUR 45.00**

eBook: 978-3-0364-1204-7

eBook Multi-User: **US\$ 79.00/ EUR 79.00**

116 pages, 2023

<https://www.scientific.net/978-3-0364-0204-8/book>



The 4th International Conference on Chemical Engineering

Volume in the series: 61

Aggregated Book

Edited by: Anastasia Prima Kristijarti and Dr. Angela Justina Kumalaputri

This book introduces scientific research results on analysing and developing chemical technologies for environmental protection, biowaste processing, biofuel production and bioproduction. These articles were presented at the 4th International Conference on Chemical Engineering (ICCE) which was successfully held online on the 6th of October 2022. The edition will be helpful to specialists in chemical technologies and chemical production.

Topics: Bioscience and Medicine, Materials Science

Keywords: Activated Carbon, Biofuel, Biomass, Biotechnology, Distillation, Environmental Protection, Lignocellulose, Pyrolysis

Prices: Print: **US\$ 55.00/ EUR 55.00**

Print: 978-3-0364-0077-8

eBook Single-User: **US\$ 55.00/ EUR 55.00**

eBook: 978-3-0364-1077-7

eBook Multi-User: **US\$ 96.00/ EUR 96.00**

138 pages, 2023

<https://www.scientific.net/978-3-0364-0077-8/book>



World Sustainable Construction Conference 2022

Volume in the series: 60

Aggregated Book

Edited by: Ramadhansyah Putra Jaya

This book is the collection of selected peer-reviewed articles which were presented at the World Sustainable Construction Conference Series 2022 (WSSC 2022), held in Kuala Lumpur, Malaysia, in October 2022. Collected articles cover a wide range of topics: Innovative Material for Sustainable Construction, Green Technology; Road Materials and Pavement Design, Processing and Applications, and statistical techniques for empirical model building.

Topics: Building Materials, Civil Engineering, Construction, Industrial Engineering, Materials Science

Keywords: Aggregate, Asphalt Mixture, Cement, Component Replacement, Concrete Mixture, Construction Waste, Demolition Waste, Fillers, Fine Aggregate, Fly Ash, Green Concrete, Green Roof, Management, Mechanical Properties, Metal, Polymer, Recycle Aggregate, Reinforcement, Sustainability

Prices: Print: **US\$ 230.00/ EUR 230.00**
eBook Single-User: **US\$ 198.00/ EUR 198.00**
eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0357-1860-7

eBook: 978-3-0357-2791-3

378 pages, 2023

<https://www.scientific.net/978-3-0357-1860-7/book>



The 7th International Conference on New Material and Chemical Industry

Volume in the series: 59

Aggregated Book

Edited by: Prof. Shixuan Xin and Prof. Manuel F. M. Costa

In this book, readers will find the articles selected from and presented at the Seventh International Conference on New Material and Chemical Industry (online, November 16-17, 2022). NMCI2022 is committed to providing a platform for academic scientists, researchers and scholars to exchange and share their experiences and research results on all aspects of materials science and chemical industry, and discuss the practical challenges encountered and the solutions adopted.

Topics: Building Materials, Materials Science

Keywords: Battery, Building Materials, Ceramics, Composite, Lithium, Polymer, Steel, Welding

Prices: Print: **US\$ 65.00/ EUR 65.00**
eBook Single-User: **US\$ 65.00/ EUR 65.00**
eBook Multi-User: **US\$ 114.00/ EUR 114.00**

Print: 978-3-0357-1667-2

eBook: 978-3-0357-3667-0

126 pages, 2023

<https://www.scientific.net/978-3-0357-1667-2/book>



The 2nd International Conference on Magnetism and its Applications

Volume in the series: 58

Aggregated Book

Edited by: Prof. Agustinus Agung Nugroho, Budi Purnama and Prof. Risdiana Risdiana

The 2nd International Conference on Magnetism and Its Applications (ICMIA) was organised by the Indonesian Magnetic Society (IMS) and held on June 2-3, 2022, in Prime Plaza Hotel Sanur, Bali, Indonesia. ICMIA is an extension of a long history of magnetic meetings in Indonesia, namely Seminar Bahan Magnet (SMM) or Magnetic Materials Seminar. The last SMM was the 9th meeting held in 2015 in Palembang, organised by the Indonesian Magnetic Club and hosted by the Faculty of Mathematics and Natural Sciences (FMIPA) – Sriwijaya University. The ICMIA in 2019 was the first international conference organized by IMS and the Department of Physics – Universitas Sebelas Maret Surakarta. The IMS as a form of legal professional organization of the Indonesian Magnetic Club was established in 2018. The conference aims to facilitate an exchange of information to get acquainted and strengthen collaboration among participants. The conference was attended by invited speakers competent in their fields to present the current leading issues on magnetism and its applications. The main concern was that during the pandemic, the conference should follow the public health guideline and apply the bubble system.

Topics: Materials Science, Nanoscience

Keywords: Adsorbent, Antibacterial Properties, Cuprate Superconductor, Dielectric Properties, Ferrite, Ferrofluid, Functional Materials, Iron Oxide, Magnetic Materials, Magnetic Moment, Magnetic Properties, Magnetocrystalline Anisotropy, Magnetoresistance Properties, Microstructure, Microwave Absorption, Modelling, Nanocomposite, Nanoparticle, Optical Properties, Photocatalytic Activity, Photoelectrochemical Water Splitting, Synthesis

Prices: Print: **US\$ 145.00/ EUR 145.00**
eBook Single-User: **US\$ 145.00/ EUR 145.00**
eBook Multi-User: **US\$ 254.00/ EUR 254.00**

Print: 978-3-0364-0076-1

eBook: 978-3-0364-1076-0

214 pages, 2023

<https://www.scientific.net/978-3-0364-0076-1/book>



Electronics, Biomedical Engineering, and Health Informatics (3rd edition)

Volume in the series: 57

Aggregated Book

Edited by: Assoc. Prof. Dr. Triwiyanto Triwiyanto

This book highlights actual topics on biomedical engineering and health informatics. The themes were chosen because of the current revolutionary growth and development in medical electronics, and intelligent system in biomedical based on signal and image processing. This edition will be attractive to many researchers in biomedical engineering and will become a beneficial source for future research.

The articles comprised here were selected from the 3rd International Conference on Electronics, Biomedical Engineering, and Health Informatics (ICEBEHI 2022), held on October 04-05, 2022, Surabaya, Indonesia.

Topics: Bioscience and Medicine, Electronics, Information Technologies, Materials Science, Mechanics

Keywords: Arthroplasty, Biomaterials, Biomedical Engineering, Health Informatics, Machine Learning, Medical Electronics, Medical Image Processing, Medical Signal Processing, Organoid, Prosthetic, Rehabilitation

Prices: Print: **US\$ 170.00/ EUR 170.00** Print: 978-3-0364-0072-3
eBook Single-User: **US\$ 170.00/ EUR 170.00** eBook: 978-3-0364-1072-2
eBook Multi-User: **US\$ 298.00/ EUR 298.00** 202 pages, 2023

<https://www.scientific.net/978-3-0364-0072-3/book>



International Conference on Silicon Carbide and Related Materials ICSCRM 2022

Volume in the series: 56

Aggregated Book

Edited by: Juraj Marek, Gregor Pobegen and Ulrike Grossner

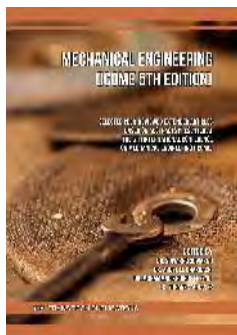
The International Conference on Silicon Carbide and Related Materials (ICSCRM) is the most important technical conference series on silicon carbide (SiC) and related materials. Started in Washington, D.C. in 1987, the conference series developed into a bi-annual global forum on SiC from its crystal growth to the reliability in application. After five conferences in the U.S., ICSCRM has been held every two years, alternating between USA, Europe, and Japan. The last three Conferences were held in Giardini Naxos, Italy (2015), Washington, D.C., USA (2017), and Kyoto, Japan (2019). Due to the pandemic situation in 2020 and 2021, the alternating European edition, the 13th ICSCRM, has been held in 2021, and the 19th ICSCRM has been postponed to 2022. The 19th edition of ICSCRM will be the last of its kind – starting in 2023, the conference series will be united with the European edition. It will form an annual event under the well-established name ICSCRM and a new rotation schedule integrating the SiC communities worldwide.

Topics: Materials Science

Keywords: Basal Plane Dislocation, Chemical Vapor Deposition, Crystal, Defect Inspection, Diode, Dislocation, Doping, Electrical Properties, Epitaxial Growth, Etching, High Power Device, Implantation, Integrated Circuit, JFET, Laser Annealing, MOSFET, Passivation, Point Defect, Reliability, Schottky Diode, Silicon Carbide, Star-Defect, Substrate, Thin Film, Wafer

Prices: Print: **US\$ 320.00/ EUR 320.00** Print: 978-3-0364-0167-6
eBook Single-User: **US\$ 0.00/ EUR 0.00** eBook: 978-3-0364-1167-5
eBook Multi-User: **US\$ 320.00/ EUR 320.00** 836 pages, 2023

<https://www.scientific.net/978-3-0364-0167-6/book>



Mechanical Engineering (ICOME 5th edition)

Volume in the series: 55

Aggregated Book

Edited by: Dr. Suwarno Suwarno, Dr. Abdel El Kharbachi, Dr. Mohammad Khoirul Effendi and Dr. Yohanes Yohanes

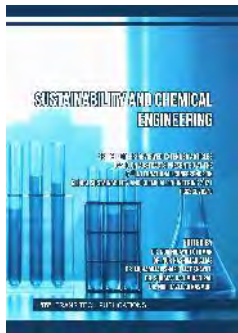
This book discusses the recent challenges and trends in metallurgy, metalworking, friction welding technologies, composite materials, materials for biomedical applications, mechanical engineering, thermal engineering, mechatronics, and failure analysis of power plant equipment. The book can be a valuable reference for students, researchers, and engineers in materials and mechanical engineering. It was collected from the selected articles presented at the 5th International Conference on Mechanical Engineering (ICOME 2021, August 25-26, 2021, Surabaya, Indonesia).

Topics: Bioscience and Medicine, General Engineering, Materials Science, Mechanical Engineering, Mechanics

Keywords: Alloy, Bioceramics, Biomass Conversion, Cladding, Coating, Composite, Corrosion, Design, Failure Analysis, Friction Welding, Hydroxyapatite, Implant, Inhibitor, Machine Parts, Mechanical Engineering, Mechanical Properties, Mechatronics, Metallurgy, Metalworking, Polymer, Polymer Composite, Powder Metallurgy, Power Plant, Steel, Thermal Engineering, Turbine, Waste Conversion

Prices: Print: **US\$ 230.00/ EUR 230.00** Print: 978-3-0357-2750-0
eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-2838-5
eBook Multi-User: **US\$ 347.00/ EUR 347.00** 378 pages, 2023

<https://www.scientific.net/978-3-0357-2750-0/book>



Sustainability and Chemical Engineering

Volume in the series: 54

Aggregated Book

Edited by: Dr. Nur Hidayati Othman, Dr. Nur Hashimah Alias, Dr. Muhammad Shafiq Mat Shayuti, Dr. Suhaiza Hanim Hanipah and Dr. Nor Hazelah Kasmuri

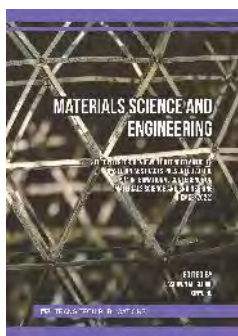
The collected in this edition articles cover recent trends and progress in developing advanced materials and technologies in the engineering field. This book comprised the selected papers presented at the 5th International Conference on Global Sustainability and Chemical Engineering (ICGSCE) 2021, organised by the School of Chemical Engineering, College of Engineering, Universiti Teknologi MARA, Malaysia.

Topics: Bioscience and Medicine, Materials Science

Keywords: Biotechnology, Composite, Crude Palm Oil, Food Processing, Landfill Gas, Oil Sorption, Petroleum Engineering, Polymer, Separation, Surfactant, Wastewater Treatment

Prices: Print: **US\$ 75.00/ EUR 75.00** Print: 978-3-0364-0035-8
 eBook Single-User: **US\$ 75.00/ EUR 75.00** eBook: 978-3-0364-1035-7
 eBook Multi-User: **US\$ 131.00/ EUR 131.00** 154 pages, 2023

<https://www.scientific.net/978-3-0364-0035-8/book>



Materials Science and Engineering

Volume in the series: 53

Aggregated Book

Edited by: Lashawn M. Gehrig and Dr. Xinyu Hu

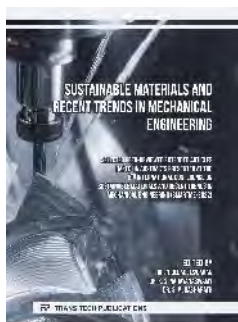
This edition presents the articles devoted mainly to materials processing technologies of steel and alloys, materials properties and advanced manufacturing technologies in the related fields of materials. All of them were selected from the 9th International Conference on Materials Science and Engineering (ICMSE2022) which was held in Wuhan, China on December 24-26, 2022. It is one of the leading international conferences for presenting novel and fundamental advances in the field of material science and engineering.

Topics: Building Materials, Materials Science

Keywords: Building Materials, Chemical Technology, Composite, Corrosion, Electrode Material, Electrolytic Machining, Mechanical Properties, Polymer, Semiconductor, Steel, Supercapacitor, Wastewater Treatment

Prices: Print: **US\$ 90.00/ EUR 90.00** Print: 978-3-0364-0063-1
 eBook Single-User: **US\$ 90.00/ EUR 90.00** eBook: 978-3-0364-1063-0
 eBook Multi-User: **US\$ 158.00/ EUR 158.00** 158 pages, 2023

<https://www.scientific.net/978-3-0364-0063-1/book>



Sustainable Materials and Recent Trends in Mechanical Engineering

Volume in the series: 52

Aggregated Book

Edited by: Dr. N. Jegadeeswaran, Dr. Kalavara Saddashiva Reddy Narayana Swamy and Dr. S.M. Dasharath

The presented research papers are devoted to the latest achievements in applied materials and technologies of materials processing. This publication will be helpful to engineers and researchers whose activity is related to materials science and machinery.

The comprised articles were presented at the 6th International Conference on Sustainable Materials and Recent Trends in Mechanical Engineering (SMARTME -2021, July 8-9, 2022, Bangalore, India).

Topics: Materials Science, Nanoscience

Keywords: Alloy, Coating, Composite, Machining, Mechanical Properties, Steel, Tribology

Prices: Print: **US\$ 85.00/ EUR 85.00** Print: 978-3-0364-0022-8
 eBook Single-User: **US\$ 85.00/ EUR 85.00** eBook: 978-3-0364-1022-7
 eBook Multi-User: **US\$ 149.00/ EUR 149.00** 134 pages, 2023

<https://www.scientific.net/978-3-0364-0022-8/book>



Green Chemical Engineering and Technology

Volume in the series: 51

Aggregated Book

Edited by: Assoc. Prof. Dr. Norzahir Sapawe and Dr. Noor Faizah Che Harun

The presented book covers all aspects of green chemical engineering and technology research, with an aim to provide an overview of the scientific, economic and environmental issues especially in green economy. All papers are green technology-related, specifically to environmental, sustainable and clean technologies; bioengineering (bioprocesses, biocatalysts, and bioproducts); food and agricultural based technology and products; polymers, catalysis and advanced materials; forensic science and biotechnology; process designs, integration and optimization; process modelling, safety and health; and renewable energy. The articles were collected by the results of the 5th International Conference on Green Chemical Engineering and Technology 2021 (5th GCET 2021, December 2021, Malaysia), a biannual international conference that began in 2013. It demonstrates the Universiti Kuala Lumpur Branch Campus Malaysian Institute of Chemical and Bioengineering Technology (UniKL MICET) full commitment to enhancing research and development activities in green technology and related areas.

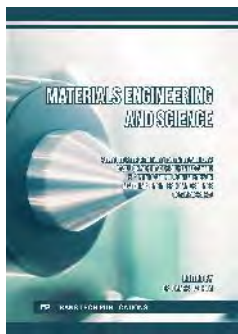
Topics: Bioscience and Medicine, Building Materials, Manufacturing, Materials Science, Mechanical Engineering

Keywords: Absorption, Battery, Bio Additive, Bio-Based Materials, Biocomposite, Biopolymer, Biotechnology, Building Materials, Chemical Engineering, Coating, Composite, Corrosion, Environmental Protection, Green Synthesis, Membrane, Organic Inhibitor, Pollutant, Polymer, Polymer Electrolyte, Pyrolysis, Surface Treatment, Waste Recycling

Prices: Print: **US\$ 320.00/ EUR 320.00**
eBook Single-User: **US\$ 198.00/ EUR 198.00**
eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0007-5
eBook: 978-3-0364-1007-4
604 pages, 2023

<https://www.scientific.net/978-3-0364-0007-5/book>



Materials Engineering and Science

Volume in the series: 50

Aggregated Book

Edited by: Dr. Omar S. Dahham

This book contains the selected papers presented at the 5th International Conference on Materials Engineering and Science (IConMEAS 2022), which was held at İstanbul Topkapı Üniversitesi, İstanbul, Turkey on August 22-23, 2022. The main objective of IConMEAS 2022 is to provide a comprehensive global forum for experts and participants from academia and industry to exchange ideas and present results of ongoing research.

Topics: Bioscience and Medicine, Building Materials, Environmental Engineering, Materials Science, Nanoscience

Keywords: Alloy, Aser Cladding, Biomaterials, Coating, Composite, Concrete, Deep Drawing, Environmental Protection, Hardness, Laser Processing, Mechanical Properties, Nanocomposite, Nanomaterials, Polymer, Steel, Thin Film, Wire Electrical Discharge Machining

Prices: Print: **US\$ 290.00/ EUR 290.00**
eBook Single-User: **US\$ 198.00/ EUR 198.00**
eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0100-3
eBook: 978-3-0364-1100-2
508 pages, 2023

<https://www.scientific.net/978-3-0364-0100-3/book>



Additive Manufacturing

Volume in the series: 49

Aggregated Book

Edited by: Persia Ada N. de Yro and Gerald Mari O. Quiachon

This edition introduces to readers the articles devoted to researching additive manufacturing technologies and solving pressing problems in this area. Possible ways of using additive technologies to manufacture machine parts in modern mechanical engineering are also analysed. The book will be helpful to many engineers, academics and students whose activities are related to 3D printing. All presented articles were introduced at the 2021 ASEAN Conference on Additive Manufacturing (ACAM 2021, October 28-29, 2021, the Philippines).

Topics: Materials Science

Keywords: 3D Printing, Additive Manufacturing, Alloy, Composite, Mechanical Properties, Microstructure, Polymer, Steel

Prices: Print: **US\$ 70.00/ EUR 70.00**
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eBook: 978-3-0357-3756-1
112 pages, 2023

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Material Engineering and Application

Volume in the series: 48

Aggregated Book

Edited by: Prof. Mosbeh Kaloop

The presented articles cover research results in the area of materials science and materials processing technologies in the various branches of modern industry. This edition will be interesting and useful to many engineers, academics and also to students.

The collected research results were presented at the 7th International Conference on Material Engineering and Application which was held in Indonesia during July 15-17, 2022.

Topics: Building Materials, Materials Science

Keywords: Aggregate, Asphalt, Biodiesel, Composite, Concrete, Electrochemistry, Electrolyte, Fractional Distillation, Fuel Production, Water Electrolysis

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eBook: 978-3-0364-1051-7

106 pages, 2023

<https://www.scientific.net/978-3-0364-0051-8/book>



Technologies and Materials for Renewable Energy, Environment and Sustainability

Volume in the series: 47

Aggregated Book

Edited by: Prof. Chafic-Touma Salame

This book presents papers selected from the 12th TMREES and related to engineering materials and advanced technologies for sustainable development. This collection can serve as a good reference for many specialists in advanced materials and applications.

The 12th TMREES 2022 was held on May 09-11, 2022, in Metz-Grand Est, France. TMREES Conference Series: Technologies and Materials for Renewable Energy, Environment and Sustainability aims to promote sustainable, healthy and diverse ecosystems; encourage and support the sustainability and development of security systems through green-based and clean resources, bringing together participants from international organizations, universities, industry and administrative to exchange innovative ideas, explore enabling technologies, share experiences in sustainability issues and open a new window on the circumstances of the classical energy sources and their harmful impact on the society.

Topics: Building Materials, Materials Science, Nanoscience

Keywords: Alloy, Building Materials, Composite, Fuel, Luminescence Properties, Waste Recycling, Wastewater Treatment

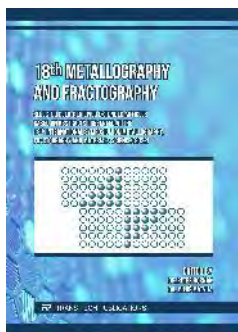
Prices: Print: **US\$ 95.00/ EUR 95.00**
 eBook Single-User: **US\$ 95.00/ EUR 95.00**
 eBook Multi-User: **US\$ 166.00/ EUR 166.00**

Print: 978-3-0364-0040-2

eBook: 978-3-0364-1040-1

136 pages, 2023

<https://www.scientific.net/978-3-0364-0040-2/book>



18th Metallography and Fractography

Volume in the series: 46

Aggregated Book

Edited by: Dr. Peter Horňák and Dr. Miloš Matvija

This book was created from invited lectures and conference contributions of the "Metallography & Fractography 2022" conference, which is featured as an essential event for the presentation of results achieved in materials science and engineering. The conference participants come from universities, academic research institutions and different branches of industry with an interest in materials science and engineering. The conference also has strong support from companies that are experts in unique experimental equipment. The conference's ambition is regularly to expand the program to cover new approaches, new advanced materials and technologies, new findings in fundamental research and practical production, and to intensify international contacts.

Topics: Materials Science, Nanoscience

Keywords: Additive Technology, Alloy, Annealing, Bronze, Cavitation, Ceramics, Coating, Cold Deformation, Cold Drawing, Composite, Corrosion, Creep Resistance, Etching, Fractography, Low Cycle Fatigue, Mechanical Properties, Melting, Metallography, Microstructure, Nanomaterials, Nanoparticles, Polymer, Sintering, Steel

Prices: Print: **US\$ 200.00/ EUR 200.00**
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Print: 978-3-0364-0078-5

eBook: 978-3-0364-1078-4

250 pages, 2023

<https://www.scientific.net/978-3-0364-0078-5/book>



Advances in Materials Research 2.0

Volume in the series: 45

Aggregated Book

Edited by: Dr. G. Kumaresan, Dr. N. Siva Shanmugam and Dr. V. Dhinakaran

The presented collection of the articles describes research results and engineering solutions in materials science, materials processing, civil construction, machines and equipment design, thermal engineering, power engineering, and mechatronics. The publication will be helpful to many engineers from the industrial sector.

The comprised papers were presented at the International Conference on Advances in Materials Research (ICAMR 2.0, 2021).

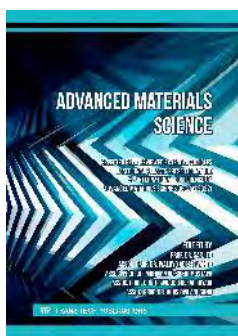
Topics: Building Materials, Civil Engineering, Construction, General Engineering, Materials Science, Mechanical Engineering, Mechanics

Keywords: Alloy, Coating, Combustion Characteristics, Composite, Concrete, Cryogenic Treatment, Earthquake Resistant, Friction Welding, Fuel, Geopolymer, Honeycomb Structure, Internal Combustion Engine, Laser Machining, Machine Design, Mechanical Properties, Mechatronics, Metal Matrix Composite, Numerical Analysis, Power Engineering, Power Electronics, Seismic Analysis, Steel, Structural Analysis, Superalloy, Thermal Engineering, Turbine Rotor Blade

Prices: Print: **US\$ 140.00/ EUR 140.00**
eBook Single-User: **US\$ 140.00/ EUR 140.00**
eBook Multi-User: **US\$ 245.00/ EUR 245.00**

Print: 978-3-0357-1891-1
eBook: 978-3-0357-3891-9
182 pages, 2023

<https://www.scientific.net/978-3-0357-1891-1/book>



Advanced Materials Science

Volume in the series: 44

Aggregated Book

Edited by: Sarjito Sarjito, Waluyo Adi Siswanto, Assoc. Prof. Dr. Mohammad Sukri Mustapa, Assoc. Prof. Dr. Tri Widodo Besar Riyadi and Assoc. Prof. Dr. Agus Dwi Anggono

This edition delivers the latest research results in materials science covering the wide range of materials, from structural metals, polymers and composites to biomaterials for various use, modern biotechnologies, technologies in chemical production and environmental protection. The collection was prepared by the results of the 5th International Conference on Advanced Materials Science (ICoAMS 2022, August 2022, Indonesia) and will be helpful to engineers and researchers in materials science and machinery.

Topics: General Engineering, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Alloy, Biomaterials, Biotechnology, Chemical Technology, Composite, Environmental Protection, Machinery, Polymer, Pyrolysis, Steel, Structural Metal

Prices: Print: **US\$ 175.00/ EUR 175.00**
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eBook Multi-User: **US\$ 306.00/ EUR 306.00**

Print: 978-3-0364-0116-4
eBook: 978-3-0364-1116-3
242 pages, 2023

<https://www.scientific.net/978-3-0364-0116-4/book>



Nanomaterials, Mechanical and Materials Engineering

Volume in the series: 43

Aggregated Book

Edited by: Prof. Yuyuan Zhao and Prof. Omar S. Es-Said

This collection of the articles will be helpful to specialists in engineering materials, nanomaterials, microelectronics, construction and machinery production.

The articles comprised in the book were selected from the 10th Asia Conference on Mechanical and Materials Engineering (ACMME 2022) and the 6th International Conference on Materials Sciences and Nanomaterials (ICMSN 2022).

Topics: Building Materials, Information Technologies, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Alloy, Buildings Materials, Ceramics, Coating, Composite, Forming, Friction Welding, Mechanical Engineering, Nanomaterials, Polymer, Powder Metallurgy, Steel, Thin Film

Prices: Print: **US\$ 150.00/ EUR 150.00**
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eBook Multi-User: **US\$ 263.00/ EUR 263.00**

Print: 978-3-0357-1876-8
eBook: 978-3-0357-3876-6
214 pages, 2023

<https://www.scientific.net/978-3-0357-1876-8/book>



Material Engineering Research

Volume in the series: 42

Aggregated Book

Edited by: Prof. Jong Wan Hu

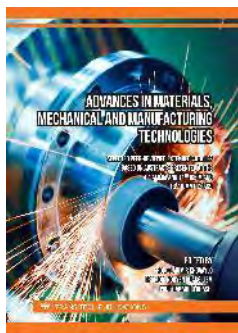
The 5th International Conference on Material Engineering Research (5th ICMER 2022) took place at the Incheon National University, Incheon, South Korea, during April 15-17, 2022. Currently, the entire world is struggling against the virulent COVID-19 pandemic. So, the conference was held as a remote presentation through video meetings. The primary objective of ICIMER 2022 is to provide a world-class forum for exchanging original ideas and new information, the latest research and for discussing scientific progress. Also, it was held to bring together academics, scientists, engineers, postgraduates and other professionals in the area of material science and engineering technology from all over the world.

Topics: Bioscience and Medicine, Building Materials, Civil Engineering, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Biodiesel, Building Materials, Composite, Luminescence Properties, Mechanical Engineering, Mechanical Properties, Metal, Nanocrystal, Polymer, Pyrolysis

Prices: Print: **US\$ 80.00/ EUR 80.00** Print: 978-3-0364-0010-5
eBook Single-User: **US\$ 80.00/ EUR 80.00** eBook: 978-3-0364-1010-4
eBook Multi-User: **US\$ 140.00/ EUR 140.00** 118 pages, 2023

<https://www.scientific.net/978-3-0364-0010-5/book>



Advances in Materials, Mechanical and Manufacturing Technologies

Volume in the series: 41

Aggregated Book

Edited by: Prof. Vladimir Khovaylo, Nguyen Quang Liem and Prof. Takahiro Ohashi

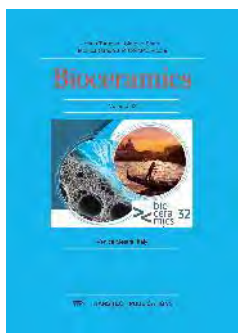
This book introduces a series of research results and engineering solutions in materials science and materials processing technologies. Nanoscale and conventional composite and polymer materials, ceramics, alloys, materials for photovoltaics and batteries, building materials, wastewater treatment, and some materials processing technologies are the main topics of this edition. The book comprises the results of the 4th International Conference on Advances in Materials, Mechanical and Manufacturing (AMMM 2022), the 11th International Conference on Engineering and Innovative Materials (ICEIM 2022) and the 13th International Conference on Materials and Manufacturing Technologies (ICMMT 2022).

Topics: Bioscience and Medicine, Building Materials, Materials Science

Keywords: Additive Manufacturing, Alloy, Building Materials, Ceramics, Composite, End Milling, Friction Stir Forming, Hot Forging, Laser Metal Deposition, Lithium Dendrite, Metal-Organic Framework, Nanomaterials, Organic Solar Cell, Polymer, Wastewater Treatment

Prices: Print: **US\$ 110.00/ EUR 110.00** Print: 978-3-0357-1812-6
eBook Single-User: **US\$ 110.00/ EUR 110.00** eBook: 978-3-0357-3812-4
eBook Multi-User: **US\$ 193.00/ EUR 193.00** 164 pages, 2023

<https://www.scientific.net/978-3-0357-1812-6/book>



Bioceramics 32

Volume in the series: 40

Aggregated Book

Edited by: Prof. Anna Tampieri, Dr. Simone Sprio, Monica Sandri and Corrado Piconi

This issue represents the research results in synthesis and processing technologies of bioceramic materials for various biomedical applications, from bone regeneration and dental restoration to drug delivery systems and skin tissue engineering. The edition will be helpful to specialists in biomaterials and tissue engineering. The articles collected in this book were presented at the 32nd Symposium and Annual Meeting of the International Society of Ceramics in Medicine (Bioceramics 32).

Topics: Bioscience and Medicine, Materials Science, Nanoscience

Keywords: Additive Technologies, Apatite, Bioceramics, Biocompatibility, Bone Regeneration, Calcium Carbonate, Calcium Phosphate, Cytocompatibility, Dental Restoration, Drug Delivery, Hydroxyapatite, Microstructure, Nanocomposite, Osteoconductivity, Scaffold, Tissue Engineering

Prices: Print: **US\$ 80.00/ EUR 80.00** Print: 978-3-0357-1721-1
eBook Single-User: **US\$ 80.00/ EUR 80.00** eBook: 978-3-0357-3710-3
eBook Multi-User: **US\$ 140.00/ EUR 140.00** 100 pages, 2023

<https://www.scientific.net/978-3-0357-1721-1/book>



Mechanical Automation and Engineering Materials

Volume in the series: 39

Aggregated Book

Edited by: Prof. Ke Yong Shao

This publication proposes to readers research results to reflect the last achievements in materials science, mechanical engineering and mechatronics. The issue contains the selected articles presented at the International Conference on Mechanical Automation and Engineering Materials (MAEM 2022, online during June 18-19, 2022).

Topics: Electronics, General Engineering, Materials Science, Mechanical Engineering, Mechanics

Keywords: Alloy, Designing, Fatigue Properties, Mechanical Engineering, Mechatronics, Quenching, Steel

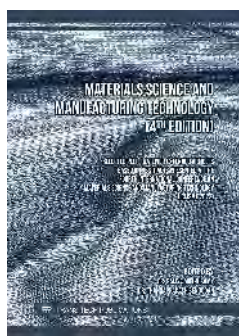
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118 pages, 2023

<https://www.scientific.net/978-3-0357-1501-9/book>



Materials Science and Manufacturing Technology (4th Edition)

Volume in the series: 38

Aggregated Book

Edited by: Dr. Ramya Muthusamy and Dr. Thangaprakash Sengodan

Materials and technologies are significant elements for all kinds of high-tech industries that pave the road for advancements in the manufacturing area. With the rapid development of computer technologies, communications, and network technology, the traditional manufacturing process has evolved into intelligent, more technologically flexible and efficient manufacturing. This book is a collection of research articles on recent materials science, manufacturing technologies, and machine design advancements. The articles presented here were selected from the Fourth International Conference on Materials Science and Manufacturing Technology 2022 (ICMSMT 2022, April 8-9, 2022, Coimbatore, Tamil Nadu, India).

Topics: Building Materials, Materials Science, Mechanical Engineering

Keywords: Alloy, Applied Mechanics, Building Materials, Casting, Ceramics, Coating, Composite, Computational Materials Science, Corrosion Protection, Cutting, Friction Stir Processing, Liquid Crystal, Luminescence, Mechanical Engineering, Mechanical Properties, Organic Synthesis, Polymer, Powder Metallurgy, Steel, Structural Analysis, Thin Film, Tuning, Welding

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 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0001-3

eBook: 978-3-0364-1001-2

640 pages, 2023

<https://www.scientific.net/978-3-0364-0001-3/book>



Advanced Technologies in Chemical, Construction and Mechanical Sciences

Volume in the series: 37

Aggregated Book

Edited by: Dr. L Rajeshkumar and Dr. D Balaji

This book presents and discusses the latest technologies and engineering advancements in materials science. It collects the results of the International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences (ICATCHCOME 2022) organised in March 2022 by the Center for Research and Development, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India. The meeting provided an environment for academicians and industry personnel to present their research results and engineering solutions on the conference topics.

Topics: Materials Science, Nanoscience

Keywords: Alloy, Ceramics, Composite, Heat Treatment, Mechanical Properties, Metal Oxide, Metallurgy, Nanomaterials, Nanotube, Polymer, Steel

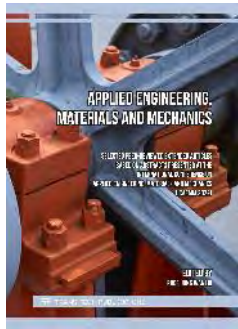
Prices: Print: **US\$ 105.00/ EUR 105.00**
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 eBook Multi-User: **US\$ 184.00/ EUR 184.00**

Print: 978-3-0357-1824-9

eBook: 978-3-0357-3780-6

148 pages, 2023

<https://www.scientific.net/978-3-0357-1824-9/book>



Applied Engineering, Materials and Mechanics

Volume in the series: 36

Aggregated Book

Edited by: Prof. Jong Wan Hu

The main topics covered in this book are nanocomposites and bioceramics, materials used in the electronic industry, building materials, materials strength and structural integrity research, and mechanical engineering research. This book will be helpful to many specialists in machinery. The edition includes research results presented at the 7th International Conference on Applied Engineering, Materials and Mechanics (7th ICAEMM 2022) held in Jeju Island, South Korea, on May 27-29, 2022.

Topics: Building Materials, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Bioceramics, High Electron Mobility Transistor, Hydroxyapatite, Lead-Free Solder, Limestone, Mechanical Engineering, Mechanical Properties, Nanocomposite, Nanopowder, Soil Cement, Strength of Materials, Structural Integrity

Prices: Print: **US\$ 70.00/ EUR 70.00**
 eBook Single-User: **US\$ 70.00/ EUR 70.00**
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Print: 978-3-0364-0009-9

eBook: 978-3-0364-1009-8

122 pages, 2023

<https://www.scientific.net/978-3-0364-0009-9/book>



20th Silicate Binders

Volume in the series: 35

Aggregated Book

Edited by: Assoc. Prof. Dr. Karel Dvořák and Dr. Dominik Gazdič

The book is devoted to scientific research results and analysis of practical findings on the technologies of preparation and applications of cement and other hydraulic, silicate, lime and gypsum-based binders. Particular attention was paid to studying the behaviour of these mentioned binders in different building materials such as concrete, inorganic insulation and solidified sludges. Here, the selected articles from the 20th International Conference Silicate Binders 2021 (Brno, Czech Republic) are collected.

Topics: Building Materials, Civil Engineering, Materials Science

Keywords: Alkali-Activated Matrix, Blast Furnace Slag, Building Materials, Cement, Cement Based Composite, Concrete, Corrosion Resistance, Fly Ash, Gypsum Plaster, Inorganic Binders, Lime

Prices: Print: **US\$ 170.00/ EUR 170.00**
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202 pages, 2023

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