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ENERGY Catalogue

2023

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Welcome

With energy and sustainability at the heart of the attention globally, TTP has collected the energy related publications of the last years into one books "collection" where the demanding reader will find a selection of titles dedicated to energy, materials for energy storage, energy transfer research, energy saving, energy devices and technologies, sustainable energy production as well as other related research in materials science and engineering.

Single, multiple and complete title selections will be available with an end-of-year discount of 25% on the regular retail price.

With shrinking library budgets, global inflation and an energy crisis, these titles will become available with a discount on 2022 pricing without any price increase for 2023 orders (until March 31, 2023).

Thousands of pages on the interface between engineering and technology and energy may be a welcome addition to the collection as new solutions globally are necessary to address the challenging problems we are all facing.

The title selection covers the most recent 4 years including 2022.

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In addition, title selections above 10 titles will receive an additional 5% over the complete selection.

You are also welcome to explore the full list of titles available on Scientific.Net in this and other materials science and engineering areas in the following section:

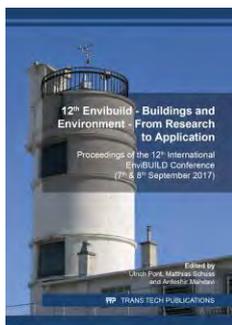
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**Anne-Kristin Wohlbier,
CEO**



Scientific.Net



12th Envibuild – Buildings and Environment – From Research to Application

Selected, peer reviewed papers from the 12th international enviBUILD conference, September 7-8, 2017, Vienna, Austria

Edited by: Ulrich Pont, Matthias Schuss and Ardeshir Mahdavi

This collection of contributions is based on the results of the enviBUILD 2017 conference (Vienna, Austria, September 7-8, 2017) and presents for readers the variety of scientific and engineering approaches in the modern architecture, designing, and planning of buildings and city environment used in the modern civil engineering.

Conference Proceedings

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

Keywords: Building Ecology, Building Occupant Behavior, Building Performance, Building Performance Simulation, Climate Change, Environmental Impact of Buildings, Human Ecology, Visual and Acoustical Aspects of Buildings

Prices: Print: **US\$ 385.00/ EUR 385.00** Print: 978-3-0357-1202-5
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3202-3
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 700 pages, 2019

<https://www.scientific.net/978-3-0357-1202-5/book>



Material Science Technology and Global Sustainability II

Selected, peer reviewed papers from the 4th International Conference on Global Sustainability and Chemical Engineering (ICGSCE 2018), September 5-6, 2018, Kuala Lumpur, Malaysia

Edited by: Syed Shatir A. Syed-Hassan

This volume of the journal presents readers with the collection of papers by results of the 4th International Conference on Global Sustainability and Chemical Engineering (ICGSCE 2018) which was successfully held during 5-6 September 2018 in Kuala Lumpur, Malaysia. The topics mentioned in this collection cover a wide range of modern materials science and chemical engineering in the aspect of clean and sustainable development.

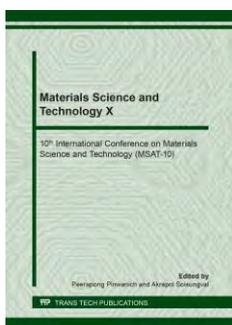
Conference Proceedings

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

Keywords: Alternative Energy Sources, Biomass, Biotechnology, Chemical Engineering, Composites, Food Processing, Oil Recovery, Polymers, Synthesis

Prices: Print: **US\$ 352.00/ EUR 352.00** Print: 978-3-0357-1204-9
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3204-7
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 438 pages, 2019

<https://www.scientific.net/978-3-0357-1204-9/book>



Materials Science and Technology X

Selected, peer reviewed papers from the 10th International Conference on Materials Science and Technology (MSAT-10), September 6-7, 2018, Bangkok, Thailand

Edited by: Peerapong Pinwanich and Akrapol Soisungval

This volume collected from papers which were presented at the 10th International Conference on Materials Science and Technology (MSAT-10, September 6-7, 2018, Bangkok, Thailand) and reflects the last results of engineering and scientific researches in the area of materials science and technologies of materials synthesis and processing. We hope this collection should be useful for a wide range of specialists from various branches of engineering activity.

Conference Proceedings

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

Keywords: Absorption, Alloys, Biomedical Materials, Ceramics, Coatings, Composites, Environmental Engineering, Photoelectrocatalysis, Processing Technologies, Steel, Thin Films, Tribology

Prices: Print: **US\$ 446.00/ EUR 446.00** Print: 978-3-0357-1429-6
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3429-4
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 446 pages, 2019

<https://www.scientific.net/978-3-0357-1429-6/book>



Modern Materials and Manufacturing 2019

Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24 - 26, 2019, Tallinn, Estonia

Edited by: Kristo Karjust, Jakob Kübarsepp, Tauno Otto and Irina Hussainova

This volume contains papers, presented to the conference Modern Materials and Manufacturing 2019 (MMM 2019, 24 - 26 April 2019, Tallinn, Estonia). The topics of the presented papers are focused, on the one hand, on various areas of materials engineering, such as alloys, ceramics, polymers, coatings, tribology, etc., and on the other hand, on different aspects of modern technologies of additive manufacturing. We hope this collection will be interesting for many specialists whose activity related to materials and technologies of materials processing in the various areas of modern production.

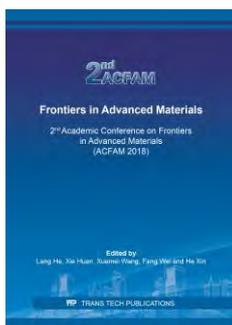
Conference Proceedings

Topics: Electronics, Manufacturing, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Additive Manufacturing Technology, Alloys, Ceramics, Coatings, Composites, Contact Pressure, Engineering Tribology, Mechanical Properties, Metals, Nanomaterials, Nanomechanics, Polymers, Powders Metallurgy, Semiconductors, Wear Resistance

Prices: Print: **US\$ 318.00/ EUR 318.00** Print: 978-3-0357-1513-2
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3513-0
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 318 pages, 2019

<https://www.scientific.net/978-3-0357-1513-2/book>



Frontiers in Advanced Materials

Selected, peer reviewed papers from the Second Academic Conference on Frontiers in Advanced Materials (ACFAM), November 2-4, 2018, Nanjing, China

Edited by: Lang He, Xie Huan, Xuemei Wang, Fang Wei and He Xin

This collection presents the results of the Second Academic Conference on Frontiers in Advanced Materials (ACFAM, November 2-4, 2018, Nanjing, China). Collected papers reflect the results of the modern researches in the area of materials and related technologies. We hope these research results will be interesting and useful for many specialists from various branches.

Conference Proceedings

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

Keywords: Alloys, Building Materials, Carbon, Ceramics, Coatings, Composites, Environmental Engineering, Graphene, Nanomaterials, Polymers, Semiconductors, Surface Engineering

Prices: Print: **US\$ 352.00/ EUR 352.00** Print: 978-3-0357-1475-3
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3475-1
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 378 pages, 2019

<https://www.scientific.net/978-3-0357-1475-3/book>



Advanced Materials and Application II

Selected, peer reviewed papers from the 2019 International Symposium on Advanced Materials and Application (ISAMA 2019), January 18-20, 2019, Seoul, South Korea

Edited by: Prof. Mosbeh Kaloop, Mohamed Ismail Bassyouni, Wonjun Park and Chengji Xian

This volume contains papers presented at the 2019 International Symposium on Advanced Materials and Application (ISAMA 2019), which took place in Seoul, South Korea, on January 18-20, 2019. The proceedings introduce to the readers with the newest researches results and findings in the field of materials properties and testing, materials application, materials behavior simulation and analysis, materials manufacturing, and processing.

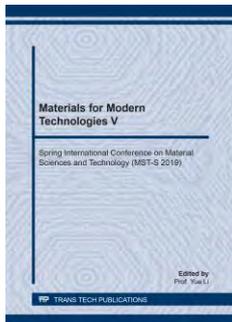
Conference Proceedings

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

Keywords: Alloys, Bioproduction, Building Materials, Casting, Ceramics, Chemical Engineering, Combustion, Drying Kinetics, Environmental Engineering, Fibre Composite, Materials Durability, Metalworking, Nanomaterials, Rolling, Steel

Prices: Print: **US\$ 226.00/ EUR 226.00** Print: 978-3-0357-1315-2
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3315-0
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 226 pages, 2019

<https://www.scientific.net/978-3-0357-1315-2/book>



Materials for Modern Technologies V

Selected, peer reviewed papers from 2019 Spring International Conference on Material Sciences and Technology (MST-S), April 22-24, 2019, Xiamen, China

Edited by: Prof. Yue Li and Dr. Mingmin Du

This volume is collected from articles presented on 2019 Spring International Conference on Material Sciences and Technology (MST-S, April 22-24, 2019, Xiamen, China) and presents to readers the last achievements in the area of materials science, metallurgical and machining technologies, chemical and environmental engineering.

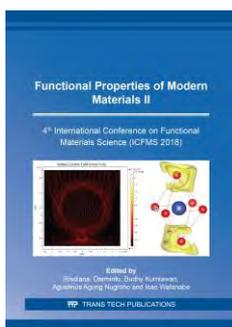
Conference Proceedings

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

Keywords: Alloys, Ceramics, Chemical Engineering, Composites, Concrete, Functional Materials, Machining Technologies, Metallurgical Technologies, Polymers, Steel

Prices: Print: **US\$ 302.00/ EUR 302.00** Print: 978-3-0357-1449-4
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3449-2
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 302 pages, 2019

<https://www.scientific.net/978-3-0357-1449-4/book>



Functional Properties of Modern Materials II

Selected, peer reviewed papers from the 4th International Conference on Functional Materials Science 2018 (ICFMS 2018), November 13-15, 2018, Bali, Indonesia

Edited by: Darminto, Budhy Kurniawan, Risdiana Risdiana and Isao Watanabe

This volume contains selected and peer-reviewed papers presented in the 4th International Conference on Functional Materials Science 2018 (ICFMS 2018, Bali, Indonesia, November 13-15, 2018). The scope of this volume is advanced and various functional materials, including functional ceramics, polymers and composites, materials for energy storage and conversion, bio- and food technologies and biomaterials, modeling and computational procedures for the research properties of functional materials, spectroscopy for advanced materials, magnetic and superconducting materials.

Conference Proceedings

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

Keywords: Activate Carbon, Amorphous Materials, Battery, Biotechnology, Carbon, Ceramics, Collagen, Computational Material Science, Crystal Structure, Electrochemistry, Food Technology, Graphene, Graphene Oxide, Hydroxyapatite, Magnetic Properties, Magnetoresistance Effect, Nanomaterials, Quantum Dot, Solar Cell, Spin-Orbit Coupling, Supercapacitor, Superconducting, Thin Film, Thin Layer, Tissue Phantom

Prices: Print: **US\$ 440.00/ EUR 440.00** Print: 978-3-0357-1496-8
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3496-6
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 532 pages, 2019

<https://www.scientific.net/978-3-0357-1496-8/book>



Key Engineering Materials IX

Selected, peer reviewed papers from the 9th International Conference on Key Engineering Materials (9th ICKEM 2019), 29 March - 1 April, 2019, Oxford, United Kingdom

Edited by: Prof. Alexander M. Korsunsky

This volume contains papers from the 9th International Conference on Key Engineering Materials (9th ICKEM 2019). The 2019 edition of the ICKEM conference was held in Oxford University, the United Kingdom on Mar. 29 - Apr. 1, 2019. The collected papers are focused on research in the areas of biomaterials, novel composite and polymer materials, ceramics, steel, alloys, building materials, materials processing technology, material performance analysis, and engineering evaluation.

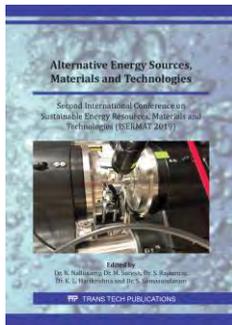
Conference Proceedings

Topics: Bioscience and Medicine, Building Materials, Civil Engineering, Construction, Electronics, Environmental Engineering, Manufacturing, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Additive Manufacturing, Alloys, Biocomposite, Biomaterials, Building Materials, Ceramics, Chemical Processing, Composites, Corrosion, Environmental Engineering, Fuel Cell, Graphene, Hydrogel, Hydroxyapatite, Microstructure, Nanocomposites, Polymer Electrolyte, Polymers, Protective Coating, Semiconductors, Solid State Synthesis, Steel

Prices: Print: **US\$ 548.00/ EUR 548.00** Print: 978-3-0357-1480-7
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3480-5
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 548 pages, 2019

<https://www.scientific.net/978-3-0357-1480-7/book>



Alternative Energy Sources, Materials and Technologies II

Selected, peer reviewed papers from the Second International Conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT 2019), March 14 -15, 2019, Chennai, India

Edited by: Dr. N. Nallusamy, Dr. M. Suresh, Dr. S. Rajkumar, Dr. K. L. Hari Krishna and Dr. S. Somasundaram

This volume contains papers which were presented on the Second International Conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT 2019 on March 14 and 15, 2019, Chennai, India) and reflect the results of researches in the area of development and investigation of the special and functional structural materials and high-tech industrial processes of materials processing. This collection will be useful for specialists from fields of mechanical engineering and materials science.

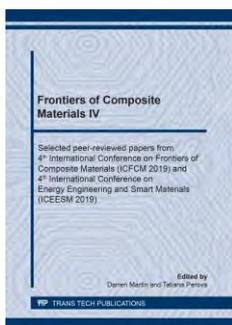
Conference Proceedings

Topics: Bioscience and Medicine, Environmental Engineering, Manufacturing, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Abrasive Water Jet Machine (AWJM), Alloys, Biomaterials, Ceramics, Composites, Extrusion, Friction Processing Technologies, Laser Processing, Metal Matrix Composites, Nanofluid, Nanospheres, Photocatalysis, Steel, Stir Casting, Thin Film, Welding

Prices: Print: **US\$ 210.00/ EUR 210.00** Print: 978-3-0357-1567-5
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3567-3
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 210 pages, 2020

<https://www.scientific.net/978-3-0357-1567-5/book>



Frontiers of Composite Materials IV

Selected, peer reviewed papers from the 4th International Conference on Frontiers of Composite Materials (ICFCM 2019), November 13-16, 2019, Brisbane, Australia and the 4th International Conference on Energy Engineering and Smart Materials (ICEESM 2019), June 22-24, 2019, Dublin, Ireland

Edited by: Darren Martin and Tatiana Perova

This volume of the journal contains papers presented at the 4th International Conference on Frontiers of Composite Materials (ICFCM 2019, Brisbane, Australia, November 13-16, 2019) and the 4th International Conference on Energy Engineering and Smart Materials (ICEESM 2019, Trinity College Dublin, University of Dublin, Ireland, June 22-24, 2019). It reflects the modern trends in the area of development of modern composite materials, technologies of chemical production, building materials and materials for microelectronics, and also for energy production and storage. This collection will be useful for specialists from many branches of engineering sciences and modern production.

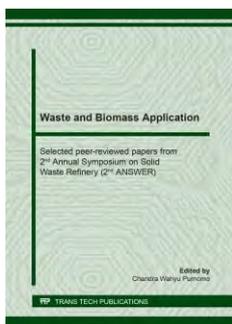
Conference Proceedings

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

Keywords: Biomaterials, Building Materials, Cement, Composites, Computational Material Science, Concrete, Fuel Cell, Membranes, Metal Matrix Composites, Nanocomposites, Polymer Composites, Porous Silicon, Protein Nanoparticles, Solar Cell, Surface Morphology, Thin Films, Wound Dressing

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 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 246 pages, 2020

<https://www.scientific.net/978-3-0357-1596-5/book>



Waste and Biomass Application

2nd Annual Symposium on Solid Waste Refinery (2nd ANSWER), November 13-14, 2019, Yogyakarta, Indonesia

Edited by: Chandra Wahyu Purnomo

This volume contains selected peer-reviewed papers from 2nd Annual Symposium on Solid Waste Refinery (2nd ANSWER, 13-14 November 2019, Yogyakarta, Indonesia). The collected papers cover the important area of human activity - waste recycling and biomass processing in the context of the sustainable development paradigm.

Conference Proceedings

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

Keywords: Recycling, Resource Recovery, Solid Waste, Waste Management, Waste Utilization

Prices: Print: **US\$ 148.00/ EUR 148.00** Print: 978-3-0357-1698-6
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3698-4
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 148 pages, 2020

<https://www.scientific.net/978-3-0357-1698-6/book>



Materials and Technology of Clean Energy

Selected peer-reviewed papers from 2nd International Conference on Clean Energy Materials and Technology (ICCEMT 2019), from November 29 - December 1, 2019, Suzhou, China

Edited by: Lang He, Xigao Jian, Fusheng Pan, Zongping Shao, Zhengming Sun and Yuxun Wang

The 2nd International Conference on Clean Energy Materials and Technology (ICCEMT 2019, Suzhou, China, from Nov. 29 to Dec. 1, 2019) was focused mainly on the theme of materials and materials processing technologies used in the production and storage of energy. The conference results also reflect the last investigation in the area of functional ceramics and composites, methods of computational mechanics and materials of biomedical application.

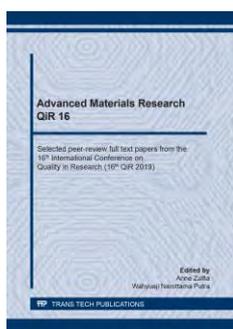
Conference Proceedings

Topics: Bioscience and Medicine, Electronics, Information Technologies, Manufacturing, Materials Science, Mechanical Engineering, Nanoscience

Keywords: Austenitic Alloys, Biomaterials, Ceramics, Coal Pyrolysis, Coating, Composites, Computational Method, Computer Simulation, Density-Functional Theory, Electrode Material, Electronic Properties, High-Speed Laser Welding, Lithium-Ion Batteries, Modified Graphite, Nanomaterials, Nuclear Energy, Nuclear Reactor, Selective Laser Melting, Silver-Zeolite, Steel, Supercapacitor, Thermoelectric Compounds

Prices: Print: **US\$ 187.00/ EUR 187.00** Print: 978-3-0357-1640-5
 eBook Single-User: **US\$ 187.00/ EUR 187.00** eBook: 978-3-0357-3640-3
 eBook Multi-User: **US\$ 327.00/ EUR 327.00** 204 pages, 2020

<https://www.scientific.net/978-3-0357-1640-5/book>



Advanced Materials Research QIR 16

Selected, peer-reviewed papers from the 16th International Conference on Quality in Research (16th QIR), July 22 – 24, 2019, Padang, Indonesia

Edited by: Anne Zulfia and Wahyuaji Narottama Putra

This volume contains papers that were presented at the Symposium Metallurgy and Materials Engineering in the framework of the 16th International Conference on Quality in Research (16th QIR, 22 – 24 July 2019, Padang, Indonesia). Collected papers represent to readers the results of scientific research and engineering decisions in the field of metallurgy and welding technologies, functional materials, and materials for energy storage devices, chemical technologies, biomedical materials, and composites.

Conference Proceedings

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

Keywords: Alloys, Biomaterials, Ceramics, Chemical Technologies, Lithium-Ion Batteries, Material Properties, Membranes, Metal, Metallurgy, Nanomaterials, Polymers, Processing Technology, Steel, Welding

Prices: Print: **US\$ 330.00/ EUR 330.00** Print: 978-3-0357-1599-6
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3599-4
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 480 pages, 2020

<https://www.scientific.net/978-3-0357-1599-6/book>



Advanced Materials for Renewable Energy

Selected, peer-reviewed papers from the annual International Conference on Renewable Energy (ICORE 2019), August 9-10, 2019, Malang, East Java, Indonesia

Edited by: Ariprihartanto and Dr. Poppy Puspitasari

The annual International Conference on Renewable Energy (ICORE 2019) was held in Malang, East Java, Indonesia on August 9 – 10, 2019. This conference is hosted by Universitas Negeri Malang, Indonesia in collaboration with the Centre of Advanced Materials for Renewable Energy (CAMRE). This volume contains papers which were presented at the annual International Conference on Renewable Energy (ICORE 2019, Indonesia, August 9 – 10, 2019) and reflect the results of research and engineering design in the area of modern materials and materials processing technologies for the various branches of modern industrial production.

Conference Proceedings

Topics: Bioscience and Medicine, Electronics, Environmental Engineering, Manufacturing, Materials Science, Mechanical Engineering, Nanoscience

Keywords: Electronic Material, Magnetic Material, Nanomaterial, Oxide Material, Renewable Energy

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 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 244 pages, 2020

<https://www.scientific.net/978-3-0357-1627-6/book>



Solid State Science and Technology XXX

Special topic volume with invited peer-reviewed papers only

Edited by: Syahida Suhaimi, Lailatun Nazirah Ozair and Azira Khalil

This volume contains selected peer-review full text papers from the the 30th Regional Conference of Solid State Science and Technology (RCSSST), Malaysia, 2018. The collection represents results of the scientific researches in the area of materials for electrotechnical engineering, electronics, optoelectronics, fuel cells and solar cells production, energy storage, investigation of properties and application methods of functional materials, nanomaterials, glasses, and biomaterials.

Special Topic

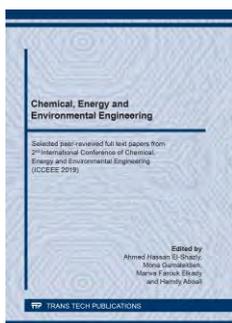
Topics: Bioscience and Medicine, Electronics, Environmental Engineering, Manufacturing, Materials Science, Nanoscience

Keywords: Advanced Material, Nanomaterial, Solid-state

Prices: Print: **US\$ 363.00/ EUR 363.00**
 eBook Single-User: **US\$ 198.00/ EUR 198.00**
 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0357-1452-4
 eBook: 978-3-0357-3452-2
 378 pages, 2020

<https://www.scientific.net/978-3-0357-1452-4/book>



Chemical, Energy and Environmental Engineering

Selected, peer-reviewed papers from the 2nd International Conference of Chemical, Energy and Environmental Engineering (ICCEEE 2019), July 16-18, 2019, Alexandria, Egypt.

Edited by: Prof. Ahmed Hassan El-Shazly, Prof. Mona G. Ibrahim, Dr. Marwa Farouk El-Kady and Dr. Hamdy Aboali

This book contains selected papers presented at the 2nd International Conference of Chemical, Energy and Environmental Engineering; ICCEEE 2019, held on 16-18 July 2019, at the Egypt-Japan University of Science and Technology, Alexandria, Egypt. Published articles reflect the recent advances in the field of materials synthesis and development related to chemical and environmental engineering.

Conference Proceedings

Topics: Environmental Engineering, Manufacturing, Materials Science, Mechanics, Nanoscience

Keywords: Absorption, Biofuel, Biohydrogen, Bioreactor, Dehumidification, Desalination, Electrochemical Synthesis, Electrooxidation, Evaporation, Films, Hydrophilic Polystyrene, Membranes, Microreactor Technology, Nanofluid, Nanoparticles, Photocatalytic Degradation, Pyrolysis, Semiconductors, Silica Synthesis, Waste Recycling, Wastewater Treatment

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Print: 978-3-0357-1711-2
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 256 pages, 2020

<https://www.scientific.net/978-3-0357-1711-2/book>



Technology and Innovation for Sustainable Development: Turning Digital Disruptions into Opportunities

Selected, peer-reviewed papers from the 10th RMUTP International Conference on Science, Technology and Innovation for Sustainable Development: Challenges Towards the Digital Society (10th RMUTP ICON SCI-2019), June 4-5, 2019, Bangkok, Thailand

Edited by: Noppakun Sanpo, Jirasak Tharajak and Paisan Kanthang

This volume contains papers from the 10th RMUTP International Conference on Science, Technology and Innovation for Sustainable Development: Turning Digital Disruptions into Opportunities 2019 (10th RMUTP ICON SCI-2019, 4-5 June 2019, Bangkok, Thailand). Presented articles reflect the last achievements and research results in the area of food chemistry and phytochemical analysis; in the technique of coatings and surface treatment; in environmental engineering and applied technologies.

Conference Proceedings

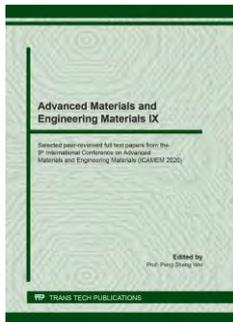
Topics: Bioscience and Medicine, Electronics, Environmental Engineering, General Engineering, Manufacturing, Materials Science, Mechanical Engineering

Keywords: Antioxidant Activities, Coatings, Food Chemistry, Gamma Ray Detection, Heavy Metals, Hysteresis, Photovoltaic Power Generators, Phytochemical Analysis, Single Crystals, Solid Waste, Surface Engineering

Prices: Print: **US\$ 121.00/ EUR 121.00**
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 eBook Multi-User: **US\$ 212.00/ EUR 212.00**

Print: 978-3-0357-1644-3
 eBook: 978-3-0357-3644-1
 130 pages, 2020

<https://www.scientific.net/978-3-0357-1644-3/book>



Advanced Materials and Engineering Materials IX

Selected, peer-reviewed papers from the 9th International Conference on Advanced Materials and Engineering Materials (ICAMEM 2020), July 3-5, 2020, Bangkok, Thailand

Edited by: Prof. Peng Sheng Wei

This collection contains papers submitted on the 9th International Conference on Advanced Materials and Engineering Materials (ICAMEM 2020) held in Bangkok, Thailand 3-5, July, 2020 and introduces for readers the last scientific research in the area of materials science and technologies of materials processing.

Conference Proceedings

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

Keywords: Alloy, Asphalt, Biomaterials, Biotechnology, Building Materials, Cement, Ceramics, Chemical Technologies, Composites, Computational Procedure, Concrete, Electrical Discharge Machining, Electronic Structure, Functional Materials, Laser Treatment, Mechanical Properties, Nanosheet, Numerical Simulation, Parameter Optimization, Polymers, Protoplast, Semiconductors, Solar Cells, Steel, Surface Roughness, Welding

Prices: Print: **US\$ 352.00/ EUR 352.00** Print: 978-3-0357-1669-6
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3669-4
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 568 pages, 2020

<https://www.scientific.net/978-3-0357-1669-6/book>



Development and Investigation of Materials Using Modern Techniques II

Selected, peer-reviewed papers from the 3rd International Conference on Advanced Materials Characterization Techniques (AMCT 2019), July 23-24, 2019, Kangar, Malaysia

Edited by: Dr. Ruhuyuddin Mohd Zaki, Zainal Arifin Ahmad, Dr. Khairul Rafezi Ahmad, Khairul Nizar Ismail, Dr. Mohd Sobri Idris, Faizul Che Pa, Mohd Fitri Mohamad Wahid, Wan Mohd Wan Ibrahim, Darus Murizam, Noorina Hidayu Jamil, Kasmuin Mohd Zaheruddin and Abdul Haqi Ibrahim

This volume contains papers that were presented on the 3rd International Conference on Advanced Materials Characterization Techniques (AMCT 2019), held at the Putra Regency Hotel, Kangar, Perlis, Malaysia, from 23rd to 24th July 2019. The collected articles reflect the last achievements in the area of research the properties of materials used in various branches of human activity.

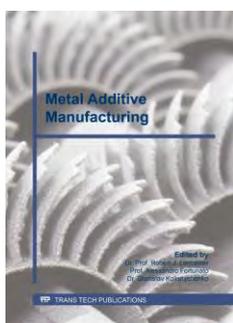
Conference Proceedings

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

Keywords: Alloys, Biocomposites, Biomaterials, Building Materials, Ceramics, Chemical Technologies, Composites, Environmental Engineering, Fuel Cells, Mechanical Properties, Metal Oxides, Natural Materials, Polymer Composites, Polymers, Processing Technology, Steel

Prices: Print: **US\$ 352.00/ EUR 352.00** Print: 978-3-0357-1582-8
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3582-6
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 712 pages, 2020

<https://www.scientific.net/978-3-0357-1582-8/book>



Metal Additive Manufacturing

Aggregated Book

Edited by: Prof. Robert J. Lancaster, Prof. Alessandro Fortunato and Dr. Stanislav Kolisnichenko

This volume is the first part of a specialised series on "Additive Manufacturing" consisting of papers published by Trans Tech Publications Inc. during the period of 2018 – 2019. This collection of scientific papers describes a wide range of engineering approaches and solutions in the area of additive manufacturing technologies for metallic materials.

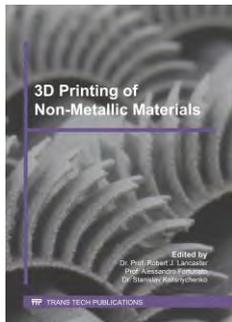
Aggregated Book

Topics: Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: 3D Printing, Additive Manufacturing, Alloys, Cold Spray, Direct 3D Printing, Direct Metal Laser Sintering, Directed Energy Deposition, Electron Beam Melting, Indirect 3D Printing, Laser Metal Deposition, Mechanical Properties, Metal Matrix Composites, Microstructure, Modelling, Post-Processing, Powder, Powder Bed Fusion, Process Parameters, Rapid Prototyping, Selective Laser Cladding, Selective Laser Melting, Selective Laser Sintering, Wire Arc Additive Manufacturing

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 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3752-3
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 738 pages, 2020

<https://www.scientific.net/978-3-0357-1752-5/book>



3D Printing of Non-Metallic Materials

Aggregated Book

Edited by: Prof. Robert J. Lancaster, Prof. Alessandro Fortunato and Dr. Stanislav Kolisnychenko

This volume is the second part of a specialised series on "Additive Manufacturing" consisting of papers published by Trans Tech Publications Inc. during the period of 2018 – 2019. This collection of scientific papers describes a wide range of engineering approaches and solutions in the area of 3D printing technologies of non-metallic materials.

Aggregated Book

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

Keywords: 3D Bioprinting, 3D Construction Printing, 3D Printing, Additive Manufacturing, Applicability Analysis, Ceramics, Composites, Direct Digital Manufacturing (DDM), Direct Energy Deposition (DED), Equipment, Fused Deposition Modeling (FDM), Hybrid Additive Manufacturing, Laser Stereolithography, Material Extrusion, Mechanical Properties, Microstructure, Modelling, Photopolymerisation, Polymers, Post-Processing, Powder Bed Fusion (PBF), Rapid Prototyping

Prices: Print: **US\$ 330.00/ EUR 330.00** Print: 978-3-0357-1504-0
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3504-8
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 514 pages, 2021

<https://www.scientific.net/978-3-0357-1504-0/book>

Materials Science and Technology of Additive Manufacturing



Selected, peer-reviewed papers from the conference Materials Science and Technology of Additive Manufacturing 2019 (MSTAM), December 10-11, 2019, Bremen, Germany

Edited by: Vasily Ploshikhin, Jan-Patrick Jürgens and Marvin Siewert

This book constitutes the proceedings of the conference Materials Science and Technology of Additive Manufacturing 2019 (MSTAM), which took place from 10th to 11th December 2019 in Bremen, Germany. MSTAM is a cutting-edge forum representing modern technological and material-specific trends and challenges in the field of additive manufacturing. The collected articles addressed powder bed fusion and direct energy deposition processes in metal additive manufacturing.

Conference Proceedings

Topics: Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Additive Manufacturing, Alloy Design, Direct Energy Deposition, Laser Powder Bed Fusion, Mechanical Properties, Microstructure, Process Monitoring, Simulation, Wire Arc Additive Manufacturing

Prices: Print: **US\$ 132.00/ EUR 132.00** Print: 978-3-0357-1663-4
 eBook Single-User: **US\$ 132.00/ EUR 132.00** eBook: 978-3-0357-3663-2
 eBook Multi-User: **US\$ 231.00/ EUR 231.00** 156 pages, 2021

<https://www.scientific.net/978-3-0357-1663-4/book>



Functional Materials: Fundamental Research and Industrial Application

Selected, peer-reviewed papers from the 5th International Conference on Functional Materials Science (5th ICFMS 2020), November 11-12, 2020, Bali, Indonesia

Edited by: Risdiana Risdiana, Budhy Kurniawan, Darminto and A.A. Nugroho

This volume presents papers collected by results of the 5th International Conference on Functional Materials Science 2020 (5th ICFMS 2020, November 11-12, 2020, Indonesia). This conference was held online and introduced the last research results in the field of functional materials and advanced processing technologies.

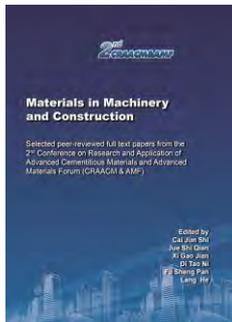
Conference Proceedings

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

Keywords: Alloy, Battery Cathode, Biomaterials, Carbon, Coating, Composites, Density Functional Theory, Ferrite, Functional Materials, Graphene, Graphene Oxide, Magnetic Properties, Nanocomposite, Nanoparticles, Photoelectrochemical Cell, Polymers, Process Technology, Semiconductor, Solar Cell, Steel, Supercapacitor, Superconductor, Thin Films

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 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 434 pages, 2021

<https://www.scientific.net/978-3-0357-1869-0/book>



Materials in Machinery and Construction

Selected, peer-reviewed papers from the 2nd Conference on Research and Application of Advanced Cementitious Materials and Advanced Materials Forum (CRAACM & AMF), October, 2020, Xi'an, China

Edited by: Cai Jun Shi, Jue Shi Qian, Xi Gao Jian, Di Tao Niu, Fu Sheng Pan and Lang He

This volume includes papers presented at the 2nd Conference on Research and Application of Advanced Cementitious Materials and Advanced Materials Forum (CRAACM & AMF) - one of the most important Chinese academic conferences held every two years. The second conference was successfully held in China Xi'an in October 2020. Collected articles represent the last scientific and engineering research results in materials in machinery and construction, technologies of the materials synthesis and processing, nanomaterials, materials, and technologies in optoelectronics and electronics.

Conference Proceedings

Topics: Building Materials, Civil Engineering, Electronics, Manufacturing, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Alloy, Anode Material, Casting, Cementitious Materials, Ceramics, Coating, Composite, Concrete, Conductive Film, Friction Stir Welding, Geopolymer, Graphene, Heat Treatment, Mechanical Properties, Microstructure, Nanomaterials, Pavement Materials, Photoelectric Properties, Steel, Zinc Oxide

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 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3811-7
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 490 pages, 2021

<https://www.scientific.net/978-3-0357-1811-9/book>



Building Materials, Materials Design and Applications II

Selected, peer-reviewed papers from the 6th International Conference on Building Materials and Construction (ICBMC 2021), Nanotechnology and Nanomaterials in Energy (ICNNE 2021), and Energy Engineering and Smart Materials (ICEESM 2021), April 28-30, 2021, Online

Edited by: Prof. Kiang Hwee Tan

The 6th International Conference on Building Materials and Construction (ICBMC 2021), Nanotechnology and Nanomaterials in Energy (ICNNE 2021), and Energy Engineering and Smart Materials (ICEESM 2021) were successfully held via the ZOOM platform. This set of conference proceedings includes selected papers from various universities, research institutes, and industries. It presents recent advances in building materials and construction, nanotechnology and nanomaterials, polymers and composites, functional materials and materials for energy conversion and energy storage, and others.

Conference Proceedings

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

Keywords: Adhesive, Building Materials, Carbon Nanotube, Composite, Concrete, Construction, Dye-Sensitized Solar Cell, Functional Materials, Graphene, Heterostructure Anode, Nanocomposite, Nanomaterials, Polymer

Prices: Print: **US\$ 176.00/ EUR 176.00** Print: 978-3-0357-1892-8
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 eBook Multi-User: **US\$ 308.00/ EUR 308.00** 186 pages, 2021

<https://www.scientific.net/978-3-0357-1892-8/book>



Material and Manufacturing Technology XII

Selected, peer-reviewed papers from the 12th International Conference on Materials and Manufacturing Technologies (ICMMT 2021), April 23-26, 2021, Singapore, Singapore

Edited by: Prof. Vladimir Khovaylo and Prof. Fu Ming Wang

This volume contains papers presented at the 12th International Conference on Materials and Manufacturing Technologies (ICMMT 2021) was held online during April 23-26, 2021, which is expected to be held annually. The topics covered in the collection are in the major areas of materials science and materials processing technologies: nanomaterials, polymers and composites, materials for energy storage and electrotechnical application, technologies and materials for waste treatment, technologies of structural metals processing, building materials.

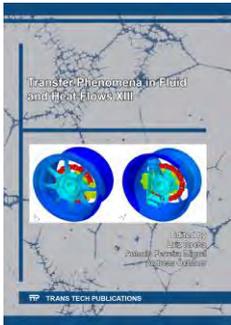
Conference Proceedings

Topics: Building Materials, Civil Engineering, Electronics, Environmental Engineering, Manufacturing, Materials Science, Mechanical Engineering, Mechanics, Nanoscience

Keywords: Alloy, Cement, Composite, Concrete, Electrocatalyst, Electrolyte, Electrospinning, Fluid Abrasive Machining, Graphene, Mechanical Properties, Nanoparticle, Photodegradation, Polymer, Steel, Superconductor, Surface Polishing, Waste Recycling

Prices: Print: **US\$ 170.00/ EUR 170.00** Print: 978-3-0357-1858-4
 eBook Single-User: **US\$ 176.00/ EUR 176.00** eBook: 978-3-0357-3858-2
 eBook Multi-User: **US\$ 308.00/ EUR 308.00** 170 pages, 2021

<https://www.scientific.net/978-3-0357-1858-4/book>



Transfer Phenomena in Fluid and Heat Flows XIII

Special topic volume with invited peer-reviewed papers only

Edited by: Luiz Rocha, Antonio F. Miguel and Prof. Andreas Öchsner

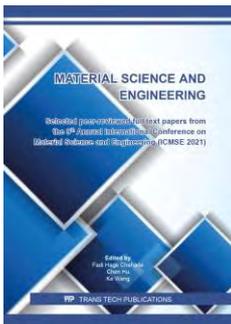
The special issue entitled “Transfer Phenomena in Fluid and Heat Flows XIII” of Defect and Diffusion Forum continues a series of themed volumes and presents a collection of works associated with heat transfer and fluid flow phenomena. These topics can be understood in a wider sense as classical diffusion-related topics. The continuous need for improved machines and higher efficiencies and more detailed and accurate theoretical modeling approaches makes it necessary to showcase the latest trends on a regular basis with small intervals between the different volumes in this topical series.

Special Topic

Topics: Building Materials, Civil Engineering, Environmental Engineering, General Engineering, Manufacturing, Materials Science, Mechanical Engineering, Mechanics

Keywords: Additive Manufacturing, Drying, Heat Dissipation, Heat Transfer, Mass Transfer, Numerical Simulation, Solar Energy, Water Treatment, Wave Energy

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 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 228 pages, 2021
<https://www.scientific.net/978-3-0357-2773-9/book>



Material Science and Engineering

Selected peer-reviewed full text papers from the 9th Annual International Conference on Material Science and Engineering (ICMSE 2021), July 23-25, 2021, Guiyang, China

Edited by: Fadi Hage Chehade, Chen Hu and Ke Wang

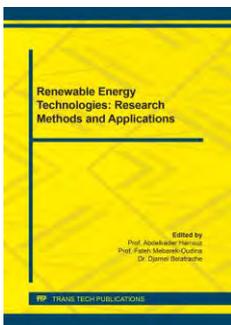
This volume includes papers presented at the 9th Annual International Conference on Material Science and Engineering (ICMSE 2021, 22-24 July 2021, China). Collected papers represent the last results of scientific research and engineering solutions in materials science, building materials, and environmental engineering.

Conference Proceedings

Topics: Building Materials, Manufacturing, Materials Science

Keywords: Adsorption, Alloy, Biomaterials, Cathode Material, Coating, Composite, Concrete, Electronics, Hardness, Laser Lithography, Mechanical Properties, Microstructure, Nanocomposite, Nanoparticle, Optoelectronics, Polymer, Steel, Supercapacitor, Superplasticizer, Thermocouple, Thin Film, Waste Disposal, Wastewater, Welding

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 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0357-3536-9
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 384 pages, 2022
<https://www.scientific.net/978-3-0357-1536-1/book>



Renewable Energy Technologies: Research Methods and Applications

Special topic volume with invited peer-reviewed papers only

Edited by: Prof. Abdelkader Harrouz, Prof. Fateh Mebarek-Oudina and Dr. Djamel Belatrache

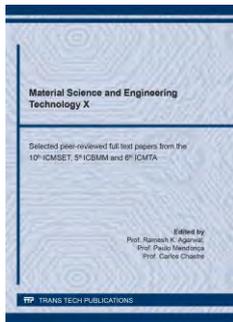
This special issue contains peer-reviewed papers. It describes the results of engineering solutions and research dealing with actual problems in using solar and wind energy and processes of heat and mass transfer in thermal systems.

Special Topic

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

Keywords: Chiller, Converter, Doubly Fed Induction Generator, Electrical Performance Degradation, Exergy Analysis, Granular Medium, Heat Transfer, Mass Transfer, Maximum Power Point Tracking, Optimal Power Control, Optimisation, Photovoltaic Array, Renewable Energy Source, Solar Energy, Thermophysical Properties, Wind Energy, Wind Turbine, Windfarm

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 eBook Multi-User: **US\$ 154.00/ EUR 154.00** 104 pages, 2022
<https://www.scientific.net/978-3-0357-1474-6/book>



Material Science and Engineering Technology X

Selected peer-reviewed full text papers from the 10th ICMSET (October 14-17, 2021, Kyoto, Japan), 5th ICBMM (September 24-26, 2021, Barcelona, Spain) and 6th ICMTA (October 30 - November 02, 2021, Fukuoka, Japan)

Edited by: Prof. Ramesh K. Agarwal, Prof. Paulo Mendonça and Prof. Carlos Chastre

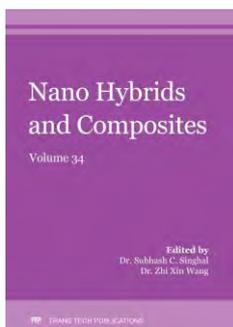
This volume contains papers presented at the 10th International Conference on Material Science and Engineering Technology (ICMSET 2021), the 5th International Conference on Building Materials and Materials Engineering (ICBMM 2021), and the 6th International Conference on Materials Technology and Applications (ICMTA 2021). Collected papers reflect the current level of scientific research and engineering solutions in materials science and materials processing technologies, including materials and structural elements in the construction and technologies for waste recycling and degradation.

Conference Proceedings

Topics: Bioscience and Medicine, Building Materials, Civil Engineering, Construction, Electronics, Environmental Engineering, Manufacturing, Materials Science, Mechanics, Nanoscience

Keywords: 3D Printing, Alloy, Biomaterials, Catalysis, Cement, Cladding, Composite, Computational Materials Science, Concrete, Conductive Polymer, Crack Propagation, Electrolyte, Esterification, Fly Ash, Functional Materials, Geopolymer Mixture, Mechanical Properties, Mortar, MOSFET, Nanocomposite, Nanomaterials, Photocatalytic Degradation, Polymer, Slag, Spark Plasma Sintering, Steel, Supercapacitor, Synthesis, Waste Recycling, Welding

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 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 446 pages, 2022
<https://www.scientific.net/978-3-0357-2684-8/book>



Nano Hybrids and Composites Vol. 34

Edited by: Dr. Subhash C. Singhal and Dr. Zhi Xin Wang

This volume represents research results and engineering solutions in area of Nanomaterials, Semiconductor, Thin Film, Nanocoating, Metal-Organic Framework, Composite, Microwave Absorber, Density Functional Theory, Alloy, Lithium, Solid Electrolyte, Polymer

Journal Volume

Topics: Materials Science, Nanoscience

Keywords: Alloy, Composite, Density Functional Theory, Lithium, Metal-Organic-Framework, Microwave Absorber, Nanocoating, Nanomaterials, Polymer, Semiconductor, Solid Electrolyte, Thin Film

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 eBook Multi-User: **US\$ 193.00/ EUR 193.00** 98 pages, 2022
<https://www.scientific.net/978-3-0357-1808-9/book>



Industrial Science and Technology III

Selected peer-reviewed full text papers from the 3rd Symposium on Industrial Science and Technology (SISTEC 2021), August 25-26, online, Malaysia

Edited by: Assoc. Prof. Dr. Agus Geter Edy Sutjipto, Dr. Nurjannah Salim, Dr. Nurul Huda Abu Bakar and Dr. Siti Maznah Kabeb

This volume presents papers from the 3rd Postgraduate Symposium on Industrial Science and Technology (SISTEC 2021, 25-26 August 2021, online, Malaysia). This collection contains engineering research results on materials science and materials processing technology.

Conference Proceedings

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

Keywords: Biotechnology, Building Materials, Composite, Membrane, Membrane Technology, Nanotube, Pharmacology, Polymer, Solar Cell, Waste Recycling, Wastewater Purification, Water Treatment

Prices: Print: **US\$ 198.00/ EUR 198.00** Print: 978-3-0357-1649-8
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 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 212 pages, 2022
<https://www.scientific.net/978-3-0357-1649-8/book>



Metallurgy Technology and Materials IX

Selected peer-reviewed full text papers from the 9th International Conference on Metallurgy Technology and Materials (ICMTM 2021), October 28-29, 2021, Zhengzhou, China

Edited by: Prof. Nor Sabirin Mohamed and Prof. Jinyang Xu

This volume comprises papers submitted at the 2021 9th International Conference on Metallurgy Technology and Materials (ICMTM 2021, October 28-29, 2021, Zhengzhou, China). The issue covers recent trends and progresses made in the field of metallurgy and materials science.

Conference Proceedings

Topics: Electronics, Manufacturing, Materials Science

Keywords: Alloy, Ceramics, Coating, Composite, Electrochemical Properties, Forming, Injection Molding, Laser Processing, Mechanical Properties, Multilayer Film, Photocatalysis, Polymer, Semi-Solid Casting, Solidification, Steel, Superalloy, Welding

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Print: 978-3-0357-1755-6

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188 pages, 2022

<https://www.scientific.net/978-3-0357-1755-6/book>



Innovative Materials Research

Special topic volume with invited peer-reviewed papers only

Edited by: Dr. Alokesh Pramanik, Dr. Anatoliy Surzhikov, Prof. Steven Y. Liang, Prof. Thanh Nam Nguyen and Dr. Anif Jamaluddin

Analysis of microstructure and properties of polymers, composites, structural metals, and functional ceramics are the main topics of this edition. Analysis of welding processes and electric arc surfacing and results of computational materials science studies are also presented. This book will be interesting for various categories of engineers and researchers from the area of applied materials science.

Special Topic

Topics: Materials Science, Nanoscience

Keywords: Alloy, Ceramics, Composite, Computational Materials Science, Electric Arc Surfacing, Mechanical Properties, Metal, Microstructure, Polymer, Welding

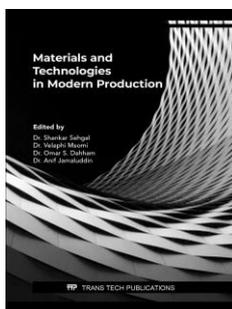
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 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

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eBook: 978-3-0364-1098-2

222 pages, 2022

<https://www.scientific.net/978-3-0364-0098-3/book>



Materials and Technologies in Modern Production

Special topic volume with invited peer-reviewed papers only

Edited by: Dr. Shankar Sehgal, Dr. Velaphi Msomi, Dr. Omar S. Dahham and Dr. Anif Jamaluddin

The current edition presents to readers the results of scientific research and engineering design in the area of engineering materials and technologies of their processing, including also technologies for water treatment and green building materials. It will be helpful to specialists and researchers in materials science in various manufacturing activities.

Special Topic

Topics: Building Materials, Materials Science, Nanoscience

Keywords: Alloy, Building Materials, Cathode, Cement, Ceramics, Coating, Concrete, Forging, Forming, Fuel Cell, Injection Molding, Mechanical Properties, Membrane, Metal Matrix Composite, Milling, Steel, Superalloy, Water Treatment

Prices: Print: **US\$ 231.00/ EUR 231.00**
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 eBook Multi-User: **US\$ 347.00/ EUR 347.00**

Print: 978-3-0364-0107-2

eBook: 978-3-0364-1107-1

284 pages, 2022

<https://www.scientific.net/978-3-0364-0107-2/book>



Materials and Production Technologies in Machinery

Special topic volume with invited peer-reviewed papers only

Edited by: Dr. Vinayak Adimule, Dr. Rajendrachari Shashanka, Prof. Mosbeh Kaloop, Dr. Spiridon (Spiros) Koutsonas, Prof. Giovanni Minafò, Prof. Peng Sheng Wei, Dr. Shankar Sehgal and Dr. Velaphi Msomi

This issue introduces readers to the results of scientific research and engineering projects in materials for sensors and energy storage devices, technologies for wastewater and water treatment, incremental metal sheet forming technology, and assessment of technological damages for concrete columns in construction.

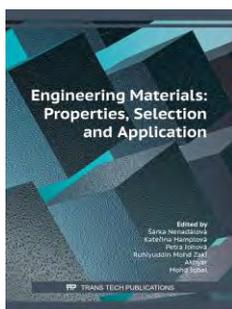
Special Topic

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

Keywords: Biosensor, Carbon Sorbent, Concrete Damage, Forming Tool, Graphene, Graphene Oxide, Image Processing, Nano Metal Oxide, Nanocomposite, Optical Properties, Photocatalytic Degradation, Single Point Incremental Forming, Supercapacitor, Technological Crack, Tool Wear, Waste Processing, Water Treatment

Prices: Print: **US\$ 132.00/ EUR 132.00** Print: 978-3-0364-0128-7
 eBook Single-User: **US\$ 132.00/ EUR 132.00** eBook: 978-3-0364-1128-6
 eBook Multi-User: **US\$ 231.00/ EUR 231.00** 188 pages, 2022

<https://www.scientific.net/978-3-0364-0128-7/book>



Engineering Materials: Properties, Selection and Application

Special topic volume with invited peer-reviewed papers only

Edited by: Šárka Nenadálová, Kateřina Hamplová, Petra Johová, Dr. Ruhuyuddin Mohd Zaki, Dr. Akhyar and Dr. Mohd Iqbal

This book introduces readers to the results of research and technical solutions in materials science and applied technologies for various industry branches, from mechanical engineering and electronics to chemical energy conversion devices and the construction sector. The book will be helpful to a wide range of specialists in the machinery production, chemical and construction industries.

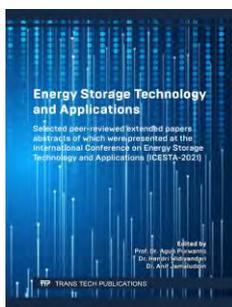
Special Topic

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

Keywords: Alloy, Antifouling, Biotechnology, Building Materials, Cementitious Material, Ceramics, Composite, Concrete, Conductive Ink, Corrosion Rate, Failure Analysis, Mechanical Properties, Membrane, Nanoparticle, Solar Cell, Solid Electrolyte, Steel, Structural Element, Technical Supervision, Water Remediation

Prices: Print: **US\$ 236.00/ EUR 236.00** Print: 978-3-0364-0159-1
 eBook Single-User: **US\$ 198.00/ EUR 198.00** eBook: 978-3-0364-1159-0
 eBook Multi-User: **US\$ 347.00/ EUR 347.00** 236 pages, 2022

<https://www.scientific.net/978-3-0364-0159-1/book>



Energy Storage Technology and Applications

Aggregated Book

Edited by: Agus Purwanto, Dr. Hendri Widiyandari and Dr. Anif Jamaluddin

This book collects papers from ICESTA-2021 organized by the Centre of Excellence for Electrical Energy Storage Technology, Universitas Sebelas Maret, Surakarta, Indonesia, held online on October 27, 2021. The conference focused on activities related to the development of advanced and state-of-the-art energy storage technologies to support electric vehicles and renewable energy. The collection of papers from ICESTA-2021 comprised in this book dedicates to research on materials used in energy storage and conversion devices including materials synthesizing, optimisation and characterization.

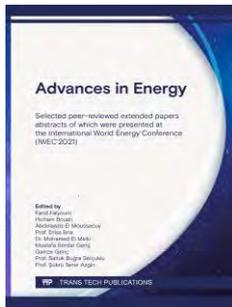
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Advances in Energy

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Edited by: Farid Falyouni, Hicham Bouali, Abdelaziz El Moussaouy, Prof. Driss Bria, Dr. Mohamed El Malki, Mustafa Serdar Genç, Gamze Genç, Prof. Saltuk Buğra Selçuklu and Prof. Şükrü Taner Azgin

This International World Energy Conference was held December 03-04, 2021, in Kayseri, Turkey and is a premier venue for engaging scholars and practitioners who are passionate and well driven to make a change in transitioning the world to a sustainable energy future. It reflects the last advances in semiconductor physics that define the modern trend in developing micro-, optoelectronics, photonic devices, and photovoltaics. Analysis of the possibility of the modified clay to absorb the industrial dye and numerical simulation of direct tensile test of reinforced concrete are also presented. This edition will be helpful to many specialists in their theoretical and experimental studies.

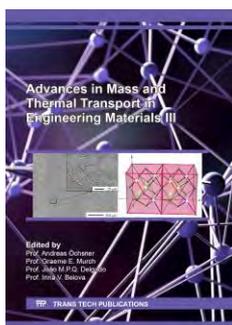
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Advances in Mass and Thermal Transport in Engineering Materials III

Edited by: Prof. Andreas Öchsner, Prof. Graeme E. Murch, Prof. João M.P.Q. Delgado and Prof. Irina V. Belova

The net movement or diffusion of atoms and heat transport (and their interactions) in solids and liquids must surely represent the most basic processes in all of Materials Science and Engineering. This diffusion directly affects the very fabrication and properties of materials. Research of atoms and heat diffusion will continue to provide ways in discovering new materials, their properties, and determining how long they would last in service. Research in this area has been extremely popular in the area of Materials Science and Engineering. The present volume is entitled: "Mass and Thermal Transport in Engineering Materials III" and follows directly on from the previous volume in 2021. This volume again covers atoms and heat diffusion from the atomistic scale up to the macro-scale and represents a cross-section of the wide range of topics in this area.

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