

TMS2019 Proceedings Volumes and Papers Available for Purchase

TMS members receive a 40 percent discount on TMS proceedings published with Springer. Visit www.tms.org/Bookstore and log in to acquire the discount code.

The TMS 2019 Annual Meeting & Exhibition (TMS2019) registrants have free, online access to the meeting's proceedings publications as a benefit of attending. If you can't make it to the meeting, you can still purchase TMS2019 proceedings volumes, as well as individual papers, using the TMS Bookstore portal at www.tms.org/Bookstore. It is expected that all 13 publications will be available by the end of February 2019.

TMS members receive a 40 percent discount on TMS proceedings, and a 20 percent discount on TMS non-proceedings titles published with Springer. The discount codes that you need to enter during checkout are presented at www.tms.org/Bookstore when you are logged in to the TMS website. Read on to learn more about each of the TMS2019 titles.

10th International Symposium on High-Temperature Metallurgical Processing

This volume features thermal processing of minerals, metals, and materials that intends to promote physical and chemical transformations of materials to enable

the extraction and production of valuable materials such as metals, alloys, ceramics, and compounds. Additionally, it focuses on innovative high-temperature technologies including those based on nontraditional heating methods as well as their environmental aspects such as handling and treatment of emission gases and byproducts.

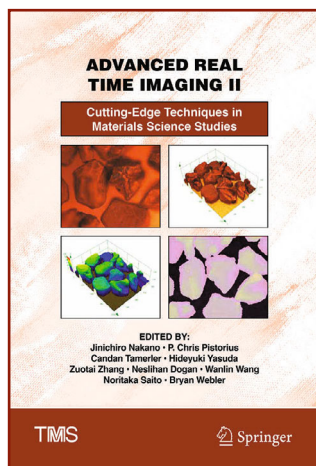
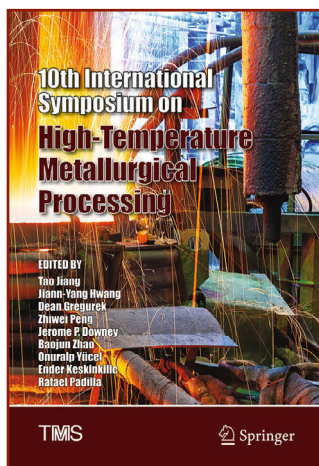
Advanced Real Time Imaging II: Cutting-Edge Techniques in Materials Science Studies

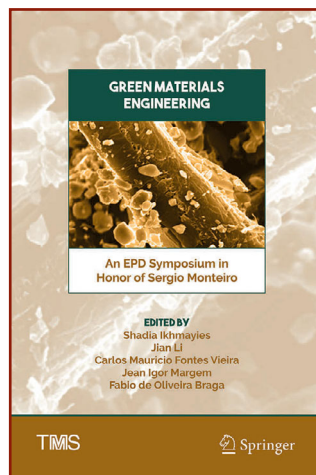
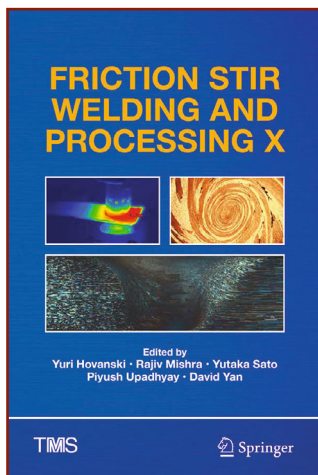
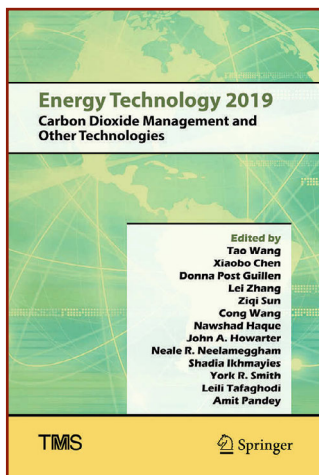
This book is an assembly of materials studies utilizing cutting-edge, real-time imaging techniques, emphasizing their significance and impact. These techniques have never before been collectively featured in a single volume. It features a wide range of materials science categories, including real-time imaging techniques especially under non-ambient conditions including elevated temperatures, controlled atmospheres, and mechanical stresses.

Characterization of Minerals, Metals, and Materials 2019

The topics of this collection cover a wide range of materials characterization, from

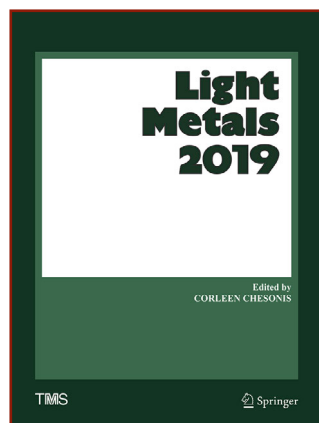
composition, structure, process, property, and performance, and their interrelations in the materials from bulk-scale down to microscale and nanoscale. The material sequence and related processes are wide covered, which include minerals, metals and alloys, ceramics, polymers and composites, semiconductors, energy, optical, electronic, magnetic, environmental materials, and concrete.





Green Materials Engineering: An EPD Symposium in Honor of Sergio Monteiro

Green engineering is the design, use of processes, and the development of products that conserve natural resources, reduce pollution, and exert the smallest possible impact on the environment. It is not actually an engineering discipline itself, but a comprehensive framework



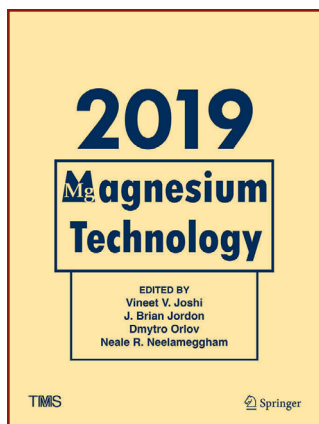
Energy Technology 2019: Carbon Dioxide Management and Other Technologies

The papers in this volume cover various technological aspects of sustainable energy ecosystems, processes that improve energy efficiency, reduce thermal emissions, and reduce carbon dioxide and other greenhouse emissions. Papers addressing renewable energy resources for metals and materials production, waste heat recovery and other industrial energy efficient technologies, new concepts or devices for energy generation and conversion, energy efficiency improvement in process engineering, sustainability and life cycle assessment of energy systems, as well as thermodynamics and modeling for sustainable metallurgical processes are included.

for all engineering disciplines. This book focuses on green materials including natural composites, bio-inspired armors, waste, clays added ceramics, lignocellulosic fibers, biodegradable polymers, and any type of natural material that could be related to engineering applications.

Light Metals 2019

Papers from the following Light Metals symposia are included in this volume: Alumina and Bauxite; Aluminum Alloys, Processing, and Characterization; Aluminum Reduction Technology; Cast Shop Technology; Cast Shop Technology: Energy Joint Session; Electrode Technology for Aluminum Production; REWAS 2019: Cast Shop Recycling Technologies; Scandium Extraction and Use in Aluminum Alloys; TMS-DGM Symposium on Lightweight Metals; and Ultrasonic Processing of Liquid and Solidifying Alloys.



Friction Stir Welding and Processing X

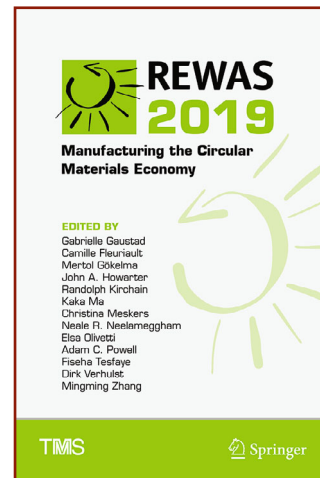
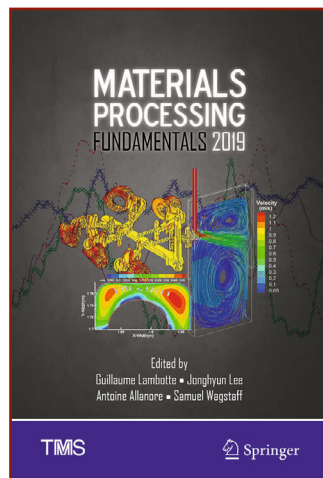
This collection covers all aspects of friction stir technologies, including friction stir welding (FSW) of high melting temperature materials; FSW of lightweight materials; FSW of dissimilar materials; simulation of friction stir welding and processing (FSW/P); controls and inspection of FSW/P; and derivative technologies like friction stir processing, friction stir spot welding, additive friction stir, and friction stir extrusion.

Magnesium Technology 2019

Papers included represent all aspects of the field, ranging from primary production to applications to recycling, and explore everything from basic research findings to industrialization. *Magnesium Technology 2019* covers a broad spectrum of current topics, including alloys and their properties; cast products and processing; wrought products and processing; forming, joining, and machining; corrosion and surface finishing; and structural applications. In addition, there is coverage of new and emerging applications.

Materials Processing Fundamentals 2019

Contributions to this volume include applications such as steel processing, modeling of steel and nonferrous alloys treatments for properties control, multi-physics and computational fluid dynamics modeling for molten metal processes and properties measurement. Extractive, recovery, and recycling process modeling is also presented, completing a broad view of the field and practices of modeling in materials processing.



Rare Metal Technology 2019

This volume covers extraction and processing techniques of platinum group metals and rare earth elements as well as other less common metals, such as lead, antimony, molybdenum, tungsten, chromium, titanium, and vanadium. It also includes electrochemical processing, aqueous processing, biological separation, microwave heating, and supercritical extraction.

REWAS 2019: Manufacturing the Circular Materials Economy

The focus of this year's REWAS 2019 conference is on manufacturing the circular materials economy, as unlocking the potential for circularity in the materials life-cycle can enable economic opportunities. REWAS 2019 is highlighted in four main thematic sessions, included in this publication: Disruptive Material Manufacturing: A Systems Perspective; Secondary and Byproduct Sources of Materials and Minerals; Rethinking

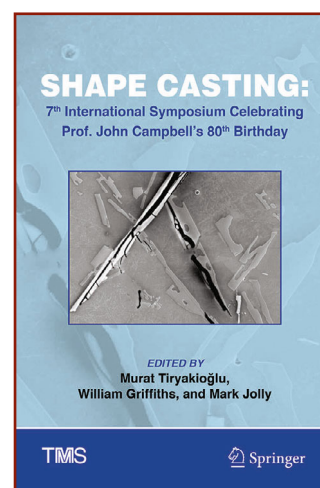
Production; and Education and Workforce Development. Works from a fifth session on Cast Shop Recycling Technologies are included in the *Light Metals 2019* publication.

Shape Casting: 7th International Symposium Celebrating Prof. John Campbell's 80th Birthday

This volume continues to explore the leading edge technologies and the latest innovations in casting process design and quality improvements relative to shape casting through presentations by researchers from around the world. This year, special emphasis has been given to the contributions of Professor John Campbell, especially bifilms in castings.

TMS 2019 148th Annual Meeting & Exhibition Supplemental Proceedings

This collection features papers presented at the 148th Annual Meeting & Exhibition of The Minerals, Metals & Materials Society. The contributions represent 41 symposia from the meeting.



Explore TMS Publications

In addition to the most current releases presented in this article, TMS also offers convenient, searchable access to more than 300 past titles at its expanded online bookstore. To take advantage of this important member benefit, go to www.tms.org/Bookstore and log in to the TMS website to access a 40 percent on TMS proceedings and free shipping.

Search by keyword, author, and year, with the option of purchasing individual papers, as well as hardcover, softcover, CD-ROM, and e-book formats. The resources available span TMS's publishing history, including important archival work that was previously difficult to find.

