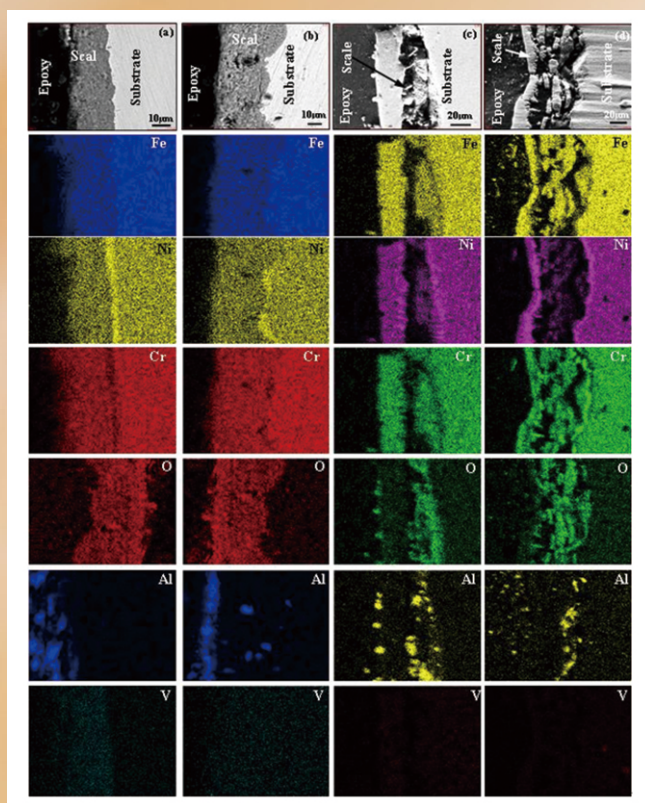


Journal of Minerals and Materials Characterization and Engineering



ISSN: 2327-4077



Journal Editorial Board

ISSN: 2327-4077 (Print) ISSN: 2327-4085 (Online)

<http://www.scirp.org/journal/jmmce>

Editor-in-Chief

Prof. Jiann-Yang (Jim) Hwang

Michigan Technological University, USA

Editorial Board

Prof. Chenguang Bai

Chongqing University, China

Prof. Jinxiang Chen

Southeast University, China

Dr. Mohan B. Dangi

California State University, USA

Dr. Govindhan Dhanaraj

Stony Brook University, USA

Prof. Wen-Feng Ding

Nanjing University of Aeronautics and Astronautics, China

Dr. Jaroslaw W. Drelich

Michigan Technological University, USA

Dr. Dolores Eliche Quesada

University of Jaén, Spain

Prof. Donato Firrao

Politecnico di Torino, Italy

Dr. Yi Huang

University of Southampton, UK

Dr. Bowen Li

Michigan Technological University, USA

Prof. Hsing K. Lin

University of Alaska Fairbanks, USA

Dr. Miguel Miranda

National Laboratory of Engineering and Geology, Portugal

Dr. Zhiwei Peng

Michigan Technological University, USA

Prof. Veena Sahajwalla

University of New South Wales, Australia

Prof. Gehad Mohamed Saleh

Nuclear Materials Authority (NMA), Egypt

Dr. Ramesh S. Sharma

Visvesvaraya Technological University, India

Table of Contents

Volume 3 Number 1

January 2015

Experimental Studies of Self Healing Behaviour of Under-Aged Al-Mg-Si Alloys and 60Sn-40Pb Alloy Reinforced Aluminium Metal-Metal Composites

K. K. Alaneme, O. I. Omosule.....1

Chemical Characterization of Auriferous Ores from the Brazilian State of Paraiba

M. R. do Nascimento, A. M. G. Lourenço.....9

Nucleation of Fe-Rich Intermetallic Phases on α -Al₂O₃ Oxide Films in Al-Si Alloys

P. Orozco-González, M. Castro-Román, S. Maldonado-Ruíz, S. Haro-Rodríguez, F. Equihua-Guillén, R. Muñoz-Valdez, S. Luna-Álvarez, M. Montoya-Dávila, A. Hernández-Rodríguez.....15

Hot Corrosion Behavior of Superalloy in Different Corrosive Environments

S. Kamal, K. V. Sharma, A. M. Abdul-Rani.....26

Daqing Oilfield Liquid Phase Underbalanced Drilling Improving Drilling Speed Evaluation Method

S. B. Li, P. H. Wang, L. G. Zhang.....37

Analysis on the Spinning Process and Properties of Tencel Yarn

Y. Wang, D. D. Gong, Y. Bai, Y. Q. Zhai.....41

Journal of Minerals and Materials Characterization and Engineering (JMMCE)

Journal Information

SUBSCRIPTIONS

The *Journal of Minerals and Materials Characterization and Engineering* (Online at Scientific Research Publishing, www.SciRP.org) is published bimonthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2015 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright © 2015 by author(s) and Scientific Research Publishing Inc.

REUSE RIGHTS FOR INDIVIDUAL PAPERS:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

DISCLAIMER OF LIABILITY

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: jmmce@scirp.org



Journal of Minerals and Materials Characterization and Engineering

ISSN: 2327-4077 (Print) ISSN: 2327-4085 (Online)

<http://www.scirp.org/journal/jmmce>

The Journal of Minerals and Materials Characterization and Engineering is an international peer-reviewed journal for the publication of original research in the fields of characterization of the minerals, metals and materials and its applications to the processing of them. Characterization has become the foundation for the discovery of new materials, the determination of their properties, understanding the occurrences and structures of materials, investigating on the performances, trouble shooting of feedstock, processes and products, and providing solutions for the industrial operations. The goal of this journal is to provide a platform for people to publish their findings in these subjects. In addition, the journal can be quite interdisciplinary for people researching in different fields being able to learn from each other and to broaden their perspectives and applications based on a common theme of characterization.

Subject Coverage

The journal publishes original research and review papers related to characterization in the areas of minerals, ceramics, metals, refractories, metallurgy, materials, energy, fillers, recycling and environmental issues. Specifics may include but not limited to the following fields:

- Aerosols
- Bio and Medical Minerals and Materials
- Ceramics
- Characterization Technologies
- Chemical and Physical Processing of Minerals, Energy and Resources
- Crystal Growth
- Electrochemical Processing
- Electromagnetic Field Interactions with Materials
- Emission Particulate Matters
- Environment
- Fillers and Polymers
- Fine Particulates
- Hydrometallurgical Processing
- Light and Wave Interactions with Materials
- Materials
- Metals
- Microscopic Investigations
- Microwave and Infrared Interactions with Materials
- Minerals, Energy and Natural Resources
- Mining
- Nanostructures
- Pyrometallurgical Processing
- Recycling
- Refractories
- Salt and Brines
- Separation and Extractive Processes
- Slag
- Sound Interactions with Materials
- Spectrometry
- Synthesis of Materials
- Thermal Characterizations
- Waste Processing

All manuscripts must be prepared in English, and are subject to a rigorous peer-review process. Accepted papers will immediately appear online followed by printed in hard copy.

Website and E-Mail

<http://www.scirp.org/journal/jmmce>

E-mail: jmmce@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific
Research
Publishing**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org