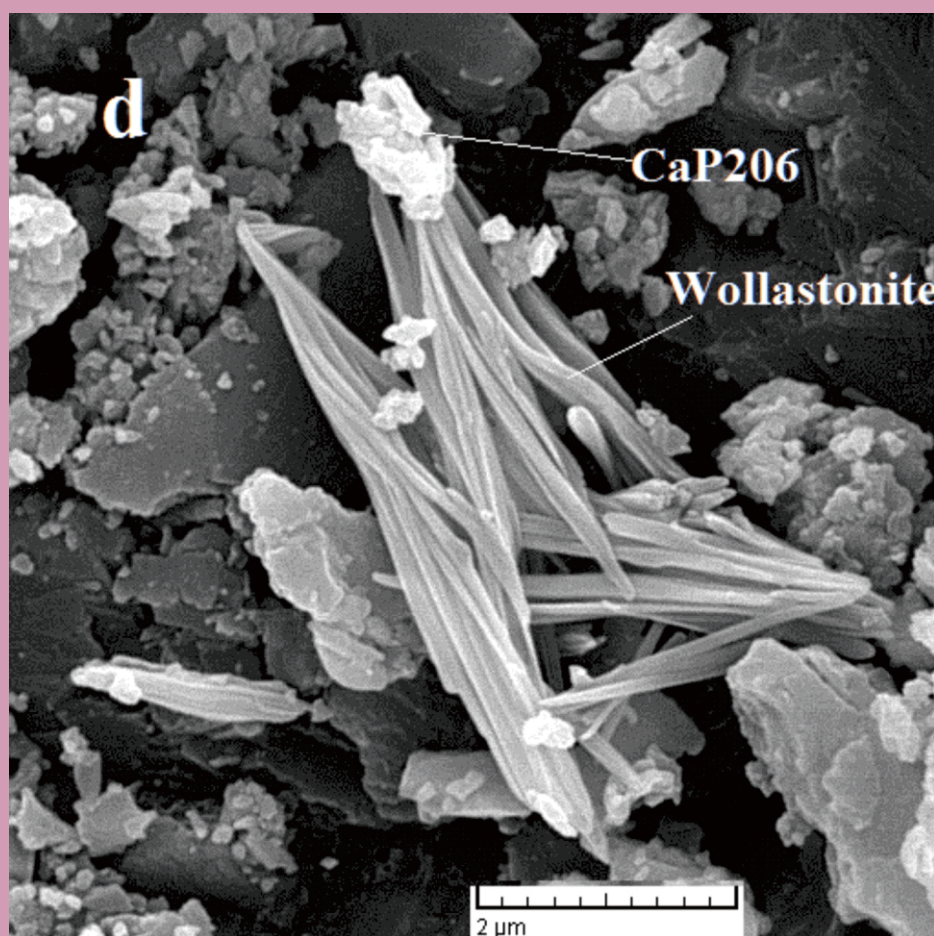


New Journal of Glass and Ceramics



Journal Editorial Board

ISSN Print: 2161-7554 ISSN Online: 2161-7562

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

Editor-in-Chief

Prof. Bouzid Menaa

Fluorotronics, Inc., USA

Editorial Board

Dr. Nikolai Bokov

Dr. Nikolaos Bouropoulos

Dr. Ahmed Brara

Institute of Silicate Chemistry of Russian Academy of Sciences, Russia

Department of Materials Science, University of Patras, Greece

National Center of Studies and Integrated Research on building Engineering (CNERIB),
Algeria

Dr. Andrew Burns

Dr. Deepika Chaudhary

Dr. Belviso Claudia

Dr. Maryanne M. Collinson

Prof. Zhen-Yan Deng

Prof. Emad Ewais

Department of Chemistry, Kent State University Stark Campus, USA

University of Rajasthan, India

CNR-IMAA, Italy

Kansas State University, USA

Department of Physics, College of Science, Shanghai University, China

Refractory and Ceramic Materials Division (RCMD), Central Metallurgical R & D
Institute (CMRDI), Egypt

Dr. Dusan Galusek

Prof. Aswini Ghosh

Dr. Mafalda Guedes

Institute of Inorganic Chemistry, Slovak

Department of Solid State Physics, Indian Association for the Cultivation of Science, India

Department of Mechanical Engineering, Escola Superior de Tecnologia de Setúbal,
Campus IPS, Portugal

Prof. Wusheng Guo

Prof. Michael Lanagan

Dr. Hong Li

Prof. Ji-Guang Li

Universitat Autònoma de Barcelona, Spain

Penn State University, USA

Glass Business and Discovery Center, PPG Industries, Inc., USA

Key Laboratory for Anisotropy and Texture of Materials, Northeastern University,
Shenyang, China

Prof. Igor Mikhailovskij

Dr. Nelcy Della Santina Mohallem

Prof. Faik Nuzhet Oktar

Dr. Mukul Chandra Paul

Prof. Zhijian Peng

Dr. Gary R. Pickrell

Dr. Luis Prado

National Science Center Kharkov Institute of Physics and Technology, Ukraine

Chemistry Department/ICEx/UFMG, Brazil

Marmara University, Turkey

Fiber Optics and Photonics Division, Central Glass & Ceramic Research Institute, India

China University of Geosciences, China

Virginia Polytechnic Institute and State University, Germany

Institut für Kunststoffe und Verbundwerkstoffe, Technische Universität Hamburg-Harburg,
Germany

Dr. Liudvikas Pranevicius

Prof. Giancarlo C. Righini

Prof. Sylwester J. Rzoska

Prof. Oleg Shevaleevskiy

Dr. Vandana Singh

Dr. Sklari Stella

Vytautas Magnus University, Kaunas, Lithuania

Nello Carrara Institute of Applied Physics, National Research Council, Italy

Institute of High Pressure Physics, Polish Academy of Sciences, Poland

Institute of Biochemical Physics, Russian Academy of Sciences (IBCP RAS), Russia

University of Allahabad, India

Chemical Process Engineering Research Institute, Centre for Research and Technology,
Greece

Prof. Boris Subotic

Laboratory for the Synthesis of New Material, Division of Materials Chemistry, Ruđer
Bosković Institute, Croatia

Prof. Maria Suszyska

Prof. Kulwant Singh Thind

Dr. Jiagang Wu

Prof. Spyros Yannopoulos

Prof. Shan-Tao Zhang

Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Poland

Department of Physics, Guru Nanak Dev University, India

Department of Materials Science and Engineering, Sichuan University, China

Foundation for Research and Technology Hellas, Greece

Department of Materials Science and Engineering, National Laboratory of Solid State
Microstructures, China

Prof. Xinhua Zhu

National Laboratory of Solid State Microstructures (NLSSMs) School of Physics,
Nanjing University, China

Editorial Assistant

Karen Zhang

Scientific Research Publishing, USA

Email: njgc@scirp.org

Guest reviewers

Yan-Feng Gao

Salvatore Grasso

Ji-Guang Li

A. M. Okasha

TABLE OF CONTENTS

Volume 2 Number 1

January 2012

Investigation of Crystallization and Microstructure of Na₂O-CaO-P₂O₅-SiO₂-Al₂O₃ Bio Glass Ceramic System	
B. Mirhadia, B. Mehdikhanib.....	1
Structural, Thermal and Electrical Property of Polycrystalline LaLiMo₂O₈	
S. Brahma, R. N. P. Choudhary, A. K. Thakur, S. A. Shivashankar.....	7
Growth and Electrical Properties of Doped ZnO by Electrochemical Deposition	
D. Chu, S. Li.....	13
Physical Properties of Nano-Composite Silica-Phosphate Thin Film Prepared by Sol Gel Technique	
I. Battisha, A. El Nahrawy.....	17
Kinetics of Phase Transformations and Thermal Stability of Se₅₈Ge_{42-x}Pb_x (x = 15, 18 & 20) Glasses	
Deepika, K. S. Rathore, N. S. Saxena.....	23
Electrical and Spectroscopic Studies of the CdO Substituted Lead Vanadate Glass System vs Crystalline Form	
P. T. Rao, K. V. Ramesh, D. L. Sastry.....	34
Effect of Ceramic Crucibles on Magneto-Optical PbO-Bi₂O₃-B₂O₃ Glasses Properties	
Q. P. Chen, Q. L. Chen, M. Ferraris.....	41
Electron Paramagnetic Resonance Studies of Cu²⁺ and VO²⁺ Spin Probes in RO-Li₂O-Na₂O-K₂O-B₂O₃ (R = Zn, Mg, Sr and Ba) Glass Systems	
A. Hameed, G. Ramadevudu, S. L. Rao, M. Shareefuddin, M. N. Chary.....	51
Crystal Structure and Electrical Properties of La_{0.45}Ce_{0.1}Li_{0.27}TiO₃ Synthesized by Sol-Gel Technique	
N. Fernández, P. Escribano, E. Cordoncillo, H. Beltrán, M. F. García-Sánchez, I. C. Romero-Ibarra, N. Masó.....	59

New Journal of Glass and Ceramics (NJGC)

Journal Information

SUBSCRIPTIONS

The *New Journal of Glass and Ceramics* (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$39 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©2012 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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: njgc@scirp.org



New Journal of Glass and Ceramics

ISSN Print: 2161-7554 ISSN Online: 2161-7562

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

New Journal of Glass and Ceramics (NJGC) is an international, specialized, English-language journal devoted to publication of original contributions concerning all branches of glass and ceramics, their properties and applications. It is an open-access, peer-reviewed journal describing scientific and technological advances that cover the basic sciences, engineering aspects and applied technology of glass and ceramics as bulk and films.

Editor-in-Chief

Prof. Bouzid Menaa

Fluorotronics, Inc., USA

Editorial Board

Dr. Nikolai Bokov
Dr. Nikolaos Bouropoulos
Dr. Ahmed Brara
Dr. Andrew Burns
Dr. Deepika Chaudhary
Dr. Belviso Claudia
Dr. Maryanne M. Collinson
Prof. Zhen-Yan Deng
Prof. Emad Ewais
Dr. Dusan Galusek

Prof. Aswini Ghosh
Dr. Mafalda Guedes
Prof. Wusheng Guo
Prof. Michael Lanagan
Dr. Hong Li
Prof. Ji-Guang Li
Prof. Igor Mikhailovskij
Dr. Nelcy Della Santina
Mohallem
Prof. Faik Nuzhet Oktar

Dr. Mukul Chandra Paul
Prof. Zhijian Peng
Dr. Gary R. Pickrell
Dr. Luis Prado
Dr. Liudvikas Pranevicius
Prof. Giancarlo C. Righini
Prof. Sylwester J. Rzoski
Prof. Oleg Shevarevskiy
Dr. Vandana Singh
Dr. Sklari Stella

Prof. Boris Subotic
Prof. Maria Suszynska
Prof. Kulwant Singh Thind
Dr. Jiagang Wu
Prof. Spyros Yannopoulos
Prof. Shan-Tao Zhang
Prof. Xinhua Zhu

Subject Coverage

The journal publishes the highest quality original full articles, communications, notes, reviews, special issues and books, covering both the experimental and theoretical aspects including but not limited to the following materials, techniques and studies:

- Aerogels
- Bioceramics
- Ceramic and Glass Powders
- Ceramic Composites
- Coatings Process
- Crystallization in Glass
- Glass Fibers
- Glasse Polymers
- Low-Softening Temperature Glasses
- New Inorganic Glasses
- Organic-Inorganic Glasses
- Powder Preparation and Colloidal Sciences
- Sol-Gel Glasses

With applications in: nanotechnology, optics, photonics, biomedical, biomaterials for implants and prosthesis, dentistry, environment, energy, thermal insulation, materials reinforcement, architectural restoration.

Contributions to fundamental and basic sciences of glass and ceramics research will be highlighted.

These concerns among others the properties and the characterization of glasses: glass structures studies, diffusion and kinetics in glasses, phase studies, thermodynamics, mechanical, thermal stability, salivation, surface properties, porosity, electrical, thermal, optical, magnetic and conductivity properties.

These concern also the theoretical aspect of the science of glass and ceramics with structure-properties relationship including modeling approaches, mechanisms. Manuscripts dealing with the technical aspect including the development of innovating tools for materials processes and productions as well as the characterization techniques of the materials are welcome.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. Authors are responsible for having their papers checked for style and grammar prior to submission to NJGC. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/njgc> Email: njgc@scirp.org