

Journal of Sol-Gel Science and Technology



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Volume 103, issue 1, July 2022

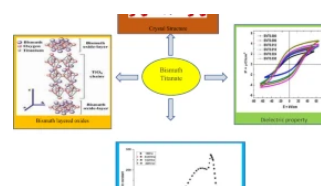
25 articles in this issue

Impact of bismuth titanate for microwave absorber application: a review

P. Harshapriya & Deepak Basandrai

Review Paper: Fundamentals of sol-gel and hybrid materials processing

Published: 27 April 2022 | Pages: 1 - 11

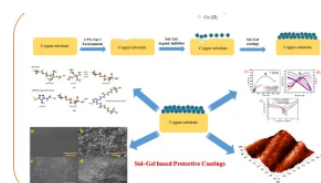


Recent studies on sol-gel based corrosion protection of Cu—A review

J. Balaji, P. Bothi Raja ... T. H. Oh

Review Paper: Sol-gel, hybrids and solution chemistries

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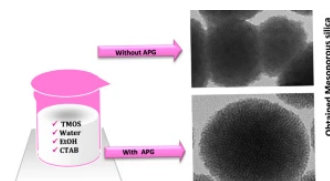


Synthesis and characterization of a new silica nanoparticles using APG/CTAB as modified agent

Sana Kachbouri, Elimame Elaloui & Clarence Charnay

Original Paper: Characterization methods of sol-gel and hybrid materials

Published: 21 April 2022 | Pages: 39 - 49

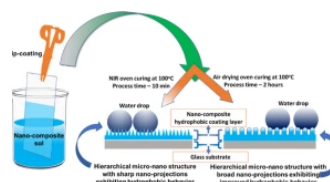


Effect of heating rate on asperities pattern formed in sol-gel derived nanocomposite hydrophobic coatings

Ramay Patra, K. R. C. Soma Raju ... R. Subasri

Original Paper: Functional coatings, thin films and membranes (including deposition techniques)

Published: 21 April 2022 | Pages: 50 - 61

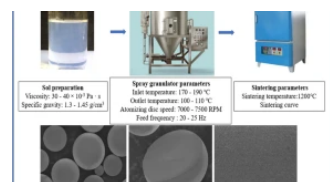


Novel process of preparation of Yttria stabilized ZrO₂ small sizes beads using sol-gel method combined with spray granulation technology

Dasong Peng, Xiaodong Wang ... Shanping hu

Original Paper: Industrial and technological applications of sol-gel and hybrid materials

Published: 15 April 2022 | Pages: 62 - 73

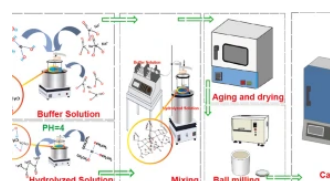


Orthogonal experimental study on vitrified bond prepared by sol-gel and verification

Shuaifei Kong, Yibo Liu & Liang Xu

Original Paper: Industrial and technological applications of sol-gel and hybrid materials

Published: 20 April 2022 | Pages: 74 - 86

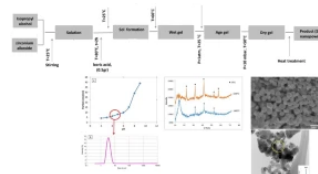


Improvement of ZrB₂ nanopowder synthesis by sol-gel method via zirconium alkoxide/boric acid precursors

Milad Rahmani-Azad, Abolhassan Najafi ... Gholamreza Khalaj

Original Paper: Nano- and macroporous materials (aerogels, xerogels, cryogels, etc.)

Published: 16 April 2022 | Pages: 87 - 96

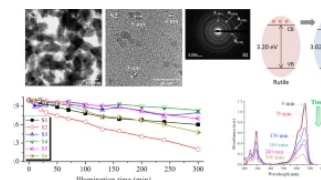


Structural and photocatalytic properties of sol-gel-derived TiO₂ samples prepared by conventional and hydrothermal methods using a low amount of water

Maira Marra, Marcello Dumont ... Eduardo H. M. Nunes

Original Paper: Nano-structured materials (particles, fibers, colloids, composites, etc.)

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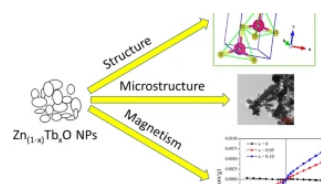


Magnetic metamorphosis of structurally enriched hexagonal Tb³⁺ modified ZnO nanoparticles

Nupur Aggarwal, Shilpi Jindal ... Naveen Kumar

Original Paper: Nano-structured materials (particles, fibers, colloids, composites, etc.)

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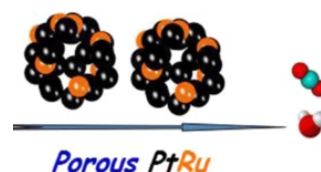


Facile synthesis of porous PtRu colloid for enhanced methanol and ethanol electrooxidation

Lei Bai

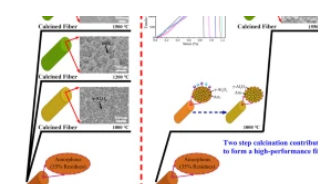
Original Paper: Nano-structured materials (particles, fibers, colloids, composites, etc.)

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Preparation of a dense alumina fiber with nanograins by a novel two-step calcination

Yunzhu Ma, Shaoheng Peng ... Juan Wang



Original Paper: Nano-structured materials (particles, fibers, colloids, composites, etc.)

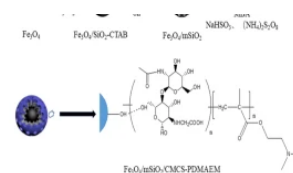
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Preparation and properties of pH-responsive magnetic mesoporous silica drug carrier

Shisheng Lai, Haoqing Wang ... Xuepeng Zhang

Original Paper: Nano-structured materials (particles, fibers, colloids, composites, etc.)

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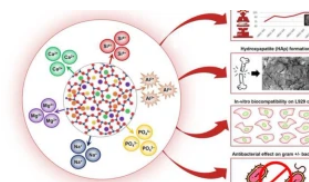


Bone formation with high bacterial inhibition and low toxicity behavior by melding of Al₂O₃ on nanobioactive glass ceramics via sol-gel process

M. S. Kairon Mubina, S. Shailajha ... M. Iyyadurai

Original Paper: Sol-gel and hybrid materials for biological and health (medical) applications

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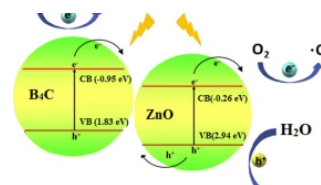


Preparation and activity evaluation of B₄C/ZnO composite photocatalyst

Ozcan Koysuren & Hafize Nagehan Koysuren

Original Paper: Sol-gel and hybrid materials for catalytic, photoelectrochemical and sensor applications

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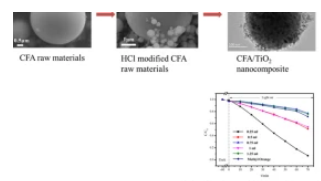


Acid-etched coal fly ash/TiO₂ nanocomposites with high photocatalytic degradation efficiency: a high value-added application of coal fly ash

Yu Liang, Song Chen ... Shu Li

Original Paper: Sol-gel and hybrid materials for catalytic, photoelectrochemical and sensor applications

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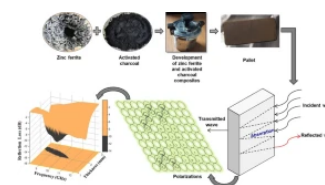


Development of zinc ferrite and activated charcoal based composites for microwave absorption analysis in X-band

Manju Bala, V. D. Shivling ... Sachin Tyagi

Original Paper: Sol-gel and hybrid materials for dielectric, electronic, magnetic and ferroelectric applications

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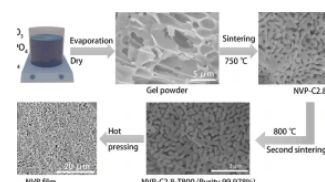


Facile synthesis of pure $\text{Na}_3\text{V}_2(\text{PO}_4)_3$ powder via a two-stage carbothermal reduction strategy

Qian Zhao, Wensheng Yang ... Yunjun Ruan

Original Paper: Sol-gel and hybrid materials for energy, environment and building applications

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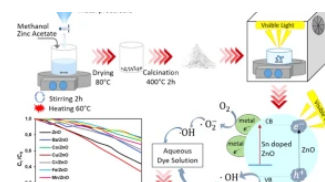


Photocatalytic degradation of organic dyes under visible light on sol-gel derived M/ZnO (M=Cr, Mn, Sn, Fe, Ni, Cu, Co, Ba) catalysts

Beyza Demir, Melek Tüter & Şeyma Özkara-Aydinoğlu

Original Paper: Sol-gel and hybrid materials for energy, environment and building applications

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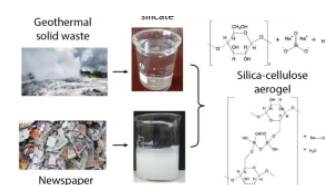


Optimizing the environmentally friendly silica-cellulose aerogel composite for acoustic insulation material derived from newspaper and geothermal solid waste using a central composite design

S. Silviana, Ferry Hermawan ... Febio Dalanta

Original Paper: Sol-gel and hybrid materials for energy, environment and building applications

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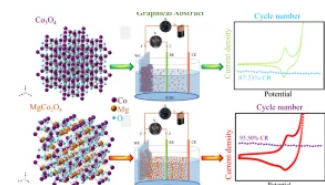


Effect of Mg substitution on the physical and electrochemical properties of Co_3O_4 thin films as electrode material with enhanced cycling stability for pseudocapacitors

M. Mahinzad Ghaziani, J. Mazloom & F. E. Ghodsi

Original Paper: Sol-gel and hybrid materials for energy, environment and building applications

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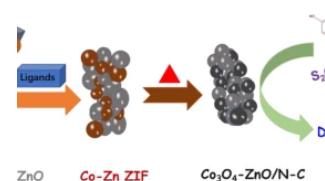


Transformation of $\text{Co}(\text{OH})_2/\text{ZnO}$ to $\text{Co}_3\text{O}_4\text{-ZnO/N-C}$ composite via MOFs for enhanced Bisphenol A degradation

Lei Bai, Wanli Zong ... Mengfan Wang

Original Paper: Sol-gel and hybrid materials for energy, environment and building applications

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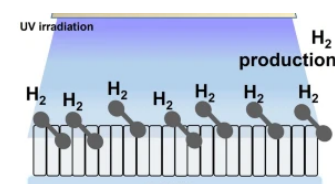


Analysis of the photocatalytic efficiency of ZnO-ZnO nanorods films deposited by two-step chemical methods in hydrogen generation

M. R. Alfaro Cruz, L. F. Garay-Rodríguez & Leticia M. Torres-Martínez

Original Paper: Sol-gel and hybrid materials for energy, environment and building applications

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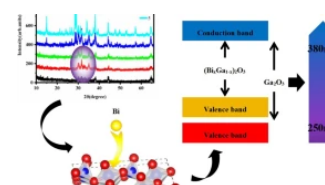


Study on the structure and properties of gallium bismuth oxide alloy thin films prepared by sol-gel method

Q. Zhang, J. X. Deng ... J. Y. Wang

Original Paper: Sol-gel and hybrid materials for optical, photonic and optoelectronic applications

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Removal of Pb^{2+} , Cr^{3+} and Hg^{2+} ions from aqueous solutions using SiO_2 and amino-functionalized SiO_2 particles

A. F. P. Allwin Mages Raj, Sara Krajnc ... Aljoša Košak

Original Paper: Sol-gel and hybrid materials with surface modification for applications

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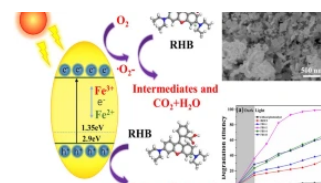


One-step synthesis via solution combustion of Fe(III)-doped BiOCl nanoparticles with high photocatalytic activity

Yong Yu, Zhichao Shang ... Peizhong Feng

Original Paper: Sol-gel, hybrids and solution chemistries

Published: 23 April 2022 | Pages: 309 - 318



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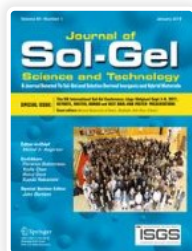
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