Organic/Inorganic Hybrid Materials—2002
Organic/Inorganic Hybrid Materials—2002

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CONTENTS

Preface ........................................................................................................................................... xiii

Materials Research Society Symposium Proceedings......................................................................... xiv

WELL-DEFINED NANOBUILDING BLOCKS—PRECURSORS FOR HYBRIDS I

Molecular Design of Organically-Modified ‘Smart’ Sol-Gel Materials ................................................... 3
   Mukti S. Rao and Bakul C. Dave

STRATEGIES TO FUNCTIONAL LAMELLAR HYBRIDS MATERIALS

* Random Lasers Based on Organic-Inorganic Hybrids ................................................................. 11

In Situ Polymerization vs. Direct Polymer Incorporation for the Nanocomposite PSS/LDH ...................... 21
   Fabrice Leroux, El Mostafa Moujahid, Joël Cellier, and Jean-Pierre Besse

In Situ Growth of Organically-Modified Magnesium Silicate Clays Within Poly(ethylene oxide) Matrices to Prepare Hybrid Nanocomposites ................................................................. 27
   Bénédicte Lebeau, Nicola T. Whilton, and Stephen Mann

Modelling the Structure and Properties of Aluminophosphonates ..................................................... 33
   Paramjit Grewal, Paul A. Wright, Mark Edgar, Julian D. Gale, and Paul A. Cox

CHEMICAL STRATEGIES FOR THE DESIGN OF NEW HYBRIDS

Organization and Connectivity in Silicon-Based Hybrid Materials by Sol-Gel Process ............................. 41
   Bruno Boury, F. Ben, and Robert J.P. Corriu

*Invited Paper
WELL-DEFINED NANOBUILDING
BLOCKS—PRECURSORS FOR HYBRIDS II

* Cluster-Crosslinked Inorganic-Organic Hybrid Polymers:
Influence of the Cluster Type on the Materials Properties
Silvia Gross, Vito Di Noto, Guido Kickelbick, and
Ulrich Schubert

Structure Characterization of Organic-Inorganic Nanocomposites
Formed by the Sol-Gel Polycondensation
Libor Matejka

BIOMATERIALS, BIOGELS, BIOMIMETIC
APPROACHES OF MATERIALS

* A Statistical Approach to the Effect of Sol-Gel Process
Variables on the Physical Properties of Polymer [PLLA]-Silica
Hybrid Materials for Use as Biomaterials
Carole C. Perry, David Eglin, Saad A.M. Ali, and Sandra Downes

A Novel Route to Collagen-Silica Biohybrids
Thibaud Coradin, Marie-Madeleine Giraud-Guille,
Christophe Helary, Jacques Livage, and Clément Sanchez

Control of Hierarchically Ordered Positive and Negative
Replicas of Wood Cellular Structures by Surfactant-Directed
Sol-Gel Mineralization
Yongsoon Shin, Jun Liu, Li-Qiong Wang, Jeong Ho Chang,
William D. Samuels, Larry R. Pederson, and Gregory J. Exarhos

Development of Porous Polymer-Ceramic Composites as Bone Grafts
Samar Kalita, John Finley, Susmita Bose, Howard Hosick,
and Amit Bandyopadhyay

HYBRID ORGANIC/
INORGANIC MATERIALS

Multifunctional Materials: 2D Constrained Electronically
Conductive Polymer Into LDH Matrix
El Mostafa Moujahid, Marc Dubois, Jean-Pierre Besse, and
Fabrice Leroux

*Invited Paper
Tin-Based Hybrid Materials as Precursors of Mesoporous Tin Oxide

Bernard Jousseaume, Hocine Riague, Thierry Toupance, and Mohamed Lahcini

Meso-Ordered Silica Films Formed by Sugar-Based Surfactants

Urska Lavrencic-Stangar, Michael Puchberger, and Nicola Häring

Helical Silica – Lipid Mesostructures

Annela M. Seddon and Stephen Mann

Synthesis and Characterization of Periodic Porous Benzene-Silica Hybrid Powders With Cubic and Hexagonal Symmetries

Valérie Goletto, Anne-Claire Bled, Gregor Trimmel, Michel Wong Chi Man, Hee-Gweon Woo, Dominique Durand, and Florence Babonneau

Investigation of Interactions Between a NLO-Dye and Metal Alkoxide Precursors of Hybrid Materials

Bénédicte Lebeau and Clément Sanchez

Preparation of a Silicon Oximide Gel Via a Non-Aqueous Sol-Gel Route

Fei Cheng and John S. Bradley

Magnetic Sol-Gel Derived Poly(oxyethylene)-Siloxane Nanohybrids


Van Nhan Nguyen, François Xavier Perrin, and Jean-Louis Vernet

Incorporation of Rare-Earth Complexes in α-Zirconium Phosphate Layered Matrices Via Pendant Amino Groups

Shanez Tlemsani, Anne-Christine Franville, Daniel Zambon, and Rachid Mahiou
Synthesis and Characterization of Organo Phyllosilicates Containing Both Si, Al, and Mg
Maguy Jaber, Jocelyne Miehe-Brendle, and Ronan Le Dred

A Generic Synthesis Route for Matrix Assisted Self-Assembly of Metal-Oxo Clusters in Organosilica Sol-Gels
Mukti S. Rao and Bakul C. Dave

Matrix-Assisted Formation of Metal Nanoparticles in Organosilica Sol-Gels
Sandie H. Cheung and Bakul C. Dave

Viscoelastic and Mechanical Properties of Polyimide-Clay Nanocomposites
Mohamed O. Abdalla, Derrick Dean, and Sandi Campbell

Metallic Nanoparticles From Single Polyelectrolyte Molecules
Ganna Gorodyska, Anton Kiriy, Sergiy Minko, and Manfred Stamm

Microencapsulation of Oil in Organically Modified Silicate Glass by Sol-Gel Process
Sang I. Seok, Bok Y. Ahn, Joo H. Kim, and Tae S. Suh

Luminescence Properties of Rare-Earth Ions in Organic-Inorganic Hybrid Mesostructured Thin Films
Anne-Christine Franville, Bruce Dunn, and Jeffrey I. Zink

Soluble, High Molecular Weight Polysilsesquioxanes With Carboxylate Functionalities
Kamyar Rahimian, Douglas A. Loy, and David R. Wheeler

Pyrene Fluorescence as a Molecular Probe of Miscibility in Organic/Inorganic Hybrid Nanocomposites Suitable for Microelectronic Applications
Q.R. Huang, David Mecerreyes, James L. Hedrick, Willi Volksen, Curtis W. Frank, and Robert D. Miller

Hybrid Organic-Inorganic Materials Designed to Clean Wash Water in Photographic Processing : Genesis of a Sol-Gel Industrial Product : The Kodak Water Saving Treatment System
Jean Guilment, Didier Martin, and Olivier Poncelet
TEMPLATED GROWTH TO NANO/MESO/MACRO-STRUCTURED HYBRIDS MATERIALS I

* Organic-Containing Mesoporous Silicas With a Variety of Mesophases and a Periodic Pore Wall Structure ................................................................. 225
  Shinji Inagaki and Shiyou Guan

* Self-Organized Hybrid Solids .............................................................................................................. 235
  Joël J.E. Moreau, Luc Vellutini, Michel Wong Chi Man,
  Catherine Bied, Jean-Louis Bantignies, Philippe Dieudonné,
  and Jean-Louis Sauvajol

Controlled Design of Mesostructured Titania Based Materials ....................................................... 243
  G.J. de A.A. Soler-Illia, D. Grosso, E.L. Crepaldi, F. Cagnol,
  and C. Sanchez

Formation of Hybrid Colloids by Suspension Polycondensation in the Presence of Hydrophilic Block Copolymers ................................................................. 249
  Corine Gerardin, Valérie Buissette, François Gaudenet,
  Olivier Anthony, Nicolas Sanson, Francesco DiRenzo, and
  François Fajula

Preparation of Mesoporous Si-M Imide Gels (M=B, Al) Via a Non-Aqueous Sol-Gel Route ............. 255
  Fei Cheng, Berangere Toury, Ralf Supplit, and John S. Bradley

TEMPLATED GROWTH TO NANO/MESO/MACRO-STRUCTURED HYBRIDS MATERIALS II

Periodic Mesoporous Organosilicas PMOs With Different Organic Bridging Groups: Synthesis and Characterization ......................................................... 263
  Vivian Rebbin, Olaf Muth, and Michael Fröba

ADVANCED PROCESSING FOR HYBRIDS MATERIALS

* Microstructural Evolution and Order-Disorder Transitions in Mesoporous Silica Films Studied by FTIR Spectroscopy .................................................. 271
  Plinio Innocenzi, Paolo Falcaro, David Grosso, and
  Florence Babonneau

*Invited Paper

ix
* DAM-1 Molecular Sieve Forms, Fibers and Films .................................................. 283

Phase Separation in Alkylene-Bridged Polysilsesquioxane
Sol-Gel Systems ................................................................. 291
  Kazuki Nakanishi, Takamitsu Yamato, and Kazuyuki Hirao

Gas Phase Deposition of Hybrid Coatings ......................................................... 297
  G.R. Alcott, J.L. Linden, and M.C.M. van de Sanden

Optimization of Radical Photopolymerization in Hybrid Sol-Gel Glasses: Advantages of Bicomponent Photoactive Systems ............................................. 303
  Olivier Soppera, Céline Croutxe-Barghorn, and Christiane Carré

ADVANCED PROCESSING FOR
HYBRID MATERIALS AND
CHARACTERIZATION METHODS

* Characterizing Porosity in Nanoporous Thin Films Using
  Positronium Annihilation Lifetime Spectroscopy ........................................... 311

Mass Spectrometry Analysis of Organic-Inorganic
Nanomaterials and Their Precursors ................................................................. 323
  Jean-Jacques Gaumet and Geoffrey Strouse

PROCESSING AND PROPERTIES
OF FUNCTIONAL HYBRIDS
(OPTICAL, ELECTRICAL, MECHANICAL)

* Active Hybrid Materials by Nanoscale Chemistry ........................................... 331
  Jean-Pierre Boilot, Sophie Besson, Valerie Buissette, Thierry Gacoin, Arnaud Huignard, and Christian Ricolleau

Optical Response of Dendrimer-Encapsulated CdS Quantum Dots—Regulation of Inter-Particle Electronic Coupling ........................................... 343
  Douglas D. Richardson, S. Ryland Ely, Meredith J. McMurdoo, and P. Gregory Van Patten

*Invited Paper
Inorganic-Organic Hybrid Polymers as Photo-Patternable Dielectrics for Multilayer Microwave Circuits

L. Fröhlich, R. Houbertz, S. Jacob, M. Popall, R. Mueller-Fiedler, J. Graf, M. Munk, and H. von Zychlinski

* From Conducting Polymers to Electroactive Hybrid Materials

Pedro Gómez-Romero and Monica Lira-Cantu

* Use of Sol-Gel Hybrids for Laser Optical Thin Films

Philippe Belleville, Philippe Prené, Claude Bonnin, and Yves Montouillout

Conductive Polymer/Transition Metal Oxide Hybrid Materials for Lithium Batteries

Chai-Won Kwon, Armel Poquet, Stéphane Mornet, Guy Campet, Josik Portier, A. Vadivel Murugan, B.B. Kale, K. Vijayamohan, and Jin-Ho Choy

Dissipative Forced Intrusion of Water in Hydrophobic Porous Silica: A New Field of Applications for MCM-41 Type Materials

Benoit Lefèvre, Pierre F. Gobin, Thierry Martin, Anne Galarneau, and Daniel Brunel

PROPERTIES OF HYBRIDS
(OPTICAL, ELECTRICAL, MECHANICAL, CATALYSIS)

Particle-Doped Organic-Inorganic Hybrid Coatings as Corrosion Inhibiting Surface Treatments for Aluminum Alloys

Tammy L. Metroke, Olga Kachurina, and Edward T. Knobbe

Polysilane-Based Thin Films With High Photosensitivity

K. Simmons-Potter, G.M. Jamison, B.G. Potter Jr., W.J. Thomas Jr., and C.C. Phifer

Cluster and Non-Cluster Based Open Framework Indium Chalcogenides

Pingyun Feng, Cheng Wang, Xianhui Bu, Nanteng Zheng, and Yuqi Li

Author Index

Subject Index

*Invited Paper
PREFACE

This volume contains papers presented at Symposium Q, "Hybrid Organic-Inorganic Materials," held April 1–5 at the 2002 MRS Spring Meeting in San Francisco, California. This is the fourth MRS volume in the area of hybrid materials in the past eight years. Interest in hybrid materials has grown substantially as more and more researchers recognize that the ability to tailor the organization of organic/inorganic composites at nanometer length scales provides access to materials that can have properties nonlinearly related to the bulk properties of the individual components. Thus, efforts to tailor nanostructure through the design, synthesis and processing of nanocomponents and the investigation of intermediate and final properties have intensified, driven in part by the roadmap that guides miniaturization in the electronics and photonics industries. In part, efforts in these areas are also driven by the scientific challenges involved in the creation of new forms of matter (nonlinear properties) and by the potential to discover and develop completely new scientific principles.

As previously, the symposium objective was to create a forum for researchers involved in the synthesis, characterization, processing and properties analysis of organic/inorganic hybrid materials to share views, learn about the leading edge science and engineering occurring around the world, and to develop new ideas/points of view for their own research efforts. The symposium was divided into seven focus areas as retained in this volume. These focus areas included: synthesis and characterization methods, functional hybrids, biomimetic and bioinspired materials, porous materials and materials with multiscale organization.

Initially, more than 160 abstracts were submitted for this symposium. Because of space and time constraints, we were limited to choosing 90 oral and 45 poster presentations. Fifty-five of these papers are contained in this volume. All of the papers were subject to peer review. After authors responded to the referees' comments and made corrections, all the papers were accepted without further review, although some minor editing was done.

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xiii
MATERIALS RESEARCH SOCIETY SYMPOSIUM PROCEEDINGS
