



Preparation and Application of Silica Polymer-Based Composite Coatings

Guest Editors:

Dr. Suleiman Rami K.

Interdisciplinary Research Center
for Advanced Materials, King
Fahd University of Petroleum &
Minerals (KFUPM), Dhahran
31261, Saudi Arabia

Dr. Arumugam Madhan Kumar

Interdisciplinary Research Center
for Advanced Materials, King
Fahd University of Petroleum &
Minerals, Dhahran 31261, Saudi
Arabia

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Message from the Guest Editors

Hybrid silica sol-gel materials have attracted a great amount of interest in the area of functional materials and protective coatings. Their unique chemical and physical bonding allows for a strong adhesion at the coating/metal interfaces. Moreover, the good chemical stability in strongly corrosive media, abrasive resistance, transparency, and favorable electrochemical properties are additional interesting properties of these hybrid materials. They can also be functionalized with certain additives such as inhibitors, biocides, and fillers that can induce advantageous desired mechanical, anticorrosion, and antimicrobial properties to the base silica coating. This collection covers all topics related to the science and technology of silica composite coatings, including synthesis, characterization, functionalization, and final applications, among others. Research on various synthetic methodologies for hybrid sol-gel polymeric materials, as well as their (nano)composites, is considered in this topic collection with the aim of sharing knowledge related to the latest advances in hybrid silica-based materials.





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Editor-in-Chief

Prof. Dr. Alexander Böker

Fraunhofer-Institut für
Angewandte Polymerforschung,
Lehrstuhl für Polymermaterialien
und Polymertechnologie,
Universität Potsdam,
Geiselbergstraße 69, 14476
Potsdam-Golm, Germany

Message from the Editor-in-Chief

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Polymers Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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