Polymer-Inorganic Nanostructured Composites Based on Amorphous Silica, Layered Silicates, and Polyionenes

Part of the Advances in Chemical and Materials Engineering Book Series

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Description:

Global trends suggest that 21st-century science and technology will be nanoscale, as traditional technologies have exhausted the potential for miniaturizing individual elements, prompting the search for alternative pathways. Nanophase materials science differs from the traditional one not only by the creation of fundamentally new materials, but also by processes that take place at the atomic and molecular levels, monolayers, and nano volumes.

Polymer-Inorganic Nanostructured Composites Based on Amorphous Silica, Layered Silicates, and Polyionenes is devoted to the development of physical and chemical principles of technology for polymer-inorganic nanostructured composites based on amorphous silica, layered silicates, and polyionenes to use the creation of composites for technical purposes. Covering topics such as fractal structure, phosphoric-organic compounds, and proton conductance, this premier reference source is an essential resource for chemists, engineers, students, and educators of higher education, researchers, and academicians.

Topics Covered:

Fractal Structure
Gel Formation
Heat Storage Media
Nanostructured Composites
Organic-Inorganic Nanocomposites
Phosphoric-Organic Compounds

Physical-Mechanical Properties Polymeric Nanocomposites Proton Conductance Rheology Sol Gel Processes

Subject: Science and Engineering Classification: Authored Reference

Readership Level: Advanced-Academic Level Research Suitable for: Advanced Undergraduate

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