International Journal of Polymeric Materials and Polymeric Biomaterials ›
Volume 60, 2011 - Issue 12

Original Articles

Chitosan Aerogels Exhibiting High Surface Area for Biomedical Application: Preparation, Characterization, and Antibacterial Study

Kumari Rinki, Pradip K. Dutta, Andrew J. Hunt, Duncan J. Macquarrie & James H. Clark

Pages 988-999 | Received 08 Sep 2010, Accepted 08 Jan 2011, Published online: 08 Sep 2011

Cite this article https://doi.org/10.1080/00914037.2011.553849

Abstract

The objective of the present work is to improve the surface area of aerogel via supercritical carbon dioxide (sc · CO_2) treatment and thus to obtain the chitosan derivative. The resulting mesoporous material exhibits the typical characteristics of aerogels aracterized using FT porosities of aerogels re done using ch as bioco ble for biomedi

Acknowledgments

The authors thank Commonwealth Scholarship Commission-London for providing an Academic Staff Fellowship Award-2007 to PKD and KR is thankful to Director, MNNIT, Allahabad, for providing her institute fellowship. KR also acknowledges Ms. Richa Bhargava, Department of Physics, MNNIT, Allahabad, for her help in carrying out the antibacterial activity. We also express our gratefulness to Dr. Kotu, Sr. Scientist of BRI, Nagda, for the chemical analysis of the chitosan sample, and UGC, New Delhi for the research grant.