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Rubber nanocomposite foams from natural rubber and soybean oil medium internal phase water- in -oil emulsions

Susamma A. Paulose Department of Chemistry, Maharaja's College Ernakulam, India

Medium Internal Phase Emulsion (MIPE) templates can be synthesized from natural rubber latex and soybean oil and micro porous polymer foams can be developed. Interconnected microporous polymer foams can be made by vulcanisation of the rubber latex followed by polymerisation of emulsion templates. The chemical nature of the foam is obtained from the FTIR data. Density and porosity studies were done and SEM micrograph of the foam is also taken. Thermal characteristics were analysed by taking the TGA and DSC. Mechanical properties like compression tests were also studied. From the above studies it is confirmed that purely green rubber foam can be thus prepared by using NR Latex and Soybean oil.

Biography

SUSAMMA.A.P. has completed her Ph.D. from Cochin University of Science and Technology, Kerala, India in the year 2003. She has got more 29 years of teaching experience under the Directorate of Collegiate Education Kerala, India. She was awarded Commonwealth Academic Staff Fellowship in the Year 2009 and did Postdoctoral research in the Department of Chemical Engineering, Imperial College London under the supervision of Prof. Alexander Bismark. Now working as Associate Professor, Maharaja's College Ernakulam, Kerala, India. She has published 8 papers in peer reviewed journals and a reviewer in 3 reputed journals.

susanjose60@gmail.com