

Nanostructuration In Hydrogels And Electrospun Fibre Mats For Biomedical Applications

Professor Alexander M. Korsunsky

Department of Engineering Science and Trinity College, Oxford
Parks Road, Oxford OX1 3PJ, UK

Abstract- The ever increasing demand for technological devices for biomedical use relies crucially on the development and optimisation of materials with specific properties. Two routes considered in the present study concern hydrogel formulations for organ phantoms, and the use of electrospinning to obtain unwoven mats for scaffolding, filtering, etc. The use of advanced characterisation techniques such as electron microscopy and synchrotron X-ray scattering will be presented. Procedures for the assessment of the suitability of new material system for chosen applications will be discussed.