

SYLICA LECTURE:

Analysis of Effective Elastic Properties of Fibre Composites with the Variation of Fibre Shape

You are cordially invited to the lecture delivered by

Prof. Vijay K. Srivastava

Department of Mechanical Engineering, Indian Institute of Technology (BHU),
Varanasi, India

WHEN: 08/07/2013, 10 a.m.

**WHERE: meeting room Institute of Materials Chemistry, 4th Floor,
Faculty of Chemistry, Brno University of Technology, Purkyňova 118,
Brno**

Abstract:

The effective material properties are predicted for composites with different shape and size of inclusions such as cylindrical fibers, spherical and elliptical particles and cylindrical fibers with hemispherical ends. The analysis is based on a numerical homogenization technique using finite element method in connection with three-dimensional representative volume element models. Investigations are carried out to study the influence of various parameters like volume fraction, aspect ratio and particle distribution.