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Special Issue on Porous Materials

Call for Papers

A porous medium (or a porous material) is a material containing pores. The skeletal portion of the material is often called the "matrix" or "frame". The pores are typically filled with a fluid. The skeletal material is usually a solid, but structures like foams are often also usefully analyzed using concept of porous media.

A porous medium is most often characterised by its porosity. Other properties of the medium can sometimes be derived from the respective properties of its constituents and the media porosity and pores structure, but such a derivation is usually complex. Even the concept of porosity is only straightforward for a poroelastic medium.

Often both the solid matrix and the pore network are continuous, so as to form two interpenetrating continua such as in a sponge. However, there is also a concept of closed porosity and effective porosity, i.e., the pore space accessible to flow. Many natural substances such as rocks and soil, zeolites, biological tissues, and manmade materials such as cements and ceramics can be considered as porous media. Many of their important properties can only be rationalized by considering them to be porous media.

The concept of porous media is used in many areas of applied science and engineering: filtration, mechanics, engineering, geosciences, biology and biophysics, material science, etc. Fluid flow through porous media is a subject of most common interest and has emerged a separate field of study. The study of more general behaviour of porous media involving deformation of the solid frame is called poromechanics.

In this special issue, we intend to invite front-line researchers and authors to submit original research and review articles on exploring **Porous Materials.**

Authors should read over the journal's <u>Authors' Guidelines</u> carefully before submission, Prospective authors should submit an electronic copy of their complete manuscript through the journal <u>Paper Submission System</u>.

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Publication Date	August 2013

Please kindly notice that the "**Special Issue**" under your manuscript title is supposed to be specified and the research field "**Special Issue** — **Porous Materials**" should be chosen during your submission.

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According to the following timetable:

