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Design, Synthesis and Characterization of Novel Porous Materials

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

For decades, scientists and industry have been fascinated by the properties of porous metals and metal foams. The diverse porous structure, with pores ranging from the nanoscale to the macroscale, is possible due to a variety of manufacturing techniques based on foaming, sintering and casting, resulting in unique structural properties such as light weight, energy absorption and structural damping. Although mainly structural properties are investigated, over the past decade, functional properties (arising from the open porosity) have been emerging. Advanced manufacturing techniques and usage of high-added-value metallic materials make porous material even more attractive and promising materials.

This Special Issue welcomes novel contributions including:

- Innovations in processing methods and synthesis of porous metal;
- Production of advanced porous metals;
- Coatings and surface treatments for porous metals and foams;
- Developments in characterization and properties of porous metals and metal foams.

Dr. Fani Stergioudi

Guest Editor



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Special Issue



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Message from the Editor-in-Chief

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