



Functional Coatings of Porous Materials

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Message from the Guest Editors

Dear Colleagues,

There is an increasing amount of interest in innovative products with special properties for which functional coatings of porous structures, typical for textile structures, and porous membranes are mainly being increasingly explored. The use of coatings, in addition to improving surface attachments of active particles and improving the durability of functional systems, also enables durable surface modifications of porous materials and minimizes the use of active particle-based materials. The topics of interest for this Special Issue, in particular, include (but are not restricted to):

Novel types of surface coatings (e.g., branched acids, crosslinkers, resins) to stabilize active particles on porous surfaces;

Coatings for extreme environmental conditions, e.g., for high/low temperatures, aggressive environments;

Nanocoatings using electrospinning/electrospraying;

Characterization of coating and functional effects durability under various operating conditions;

Special application of porous structures with functional coating.





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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

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