



Host laboratory :

Ceramics Synthesis and Functionalization Lab ([LSFC](#)), Cavaillon, France.

The lab is a joint laboratory between CNRS and Saint-Gobain: as such, our mission is to build expertise in the field of ceramic materials, progress in the understanding of related phenomena and explore emerging technologies, in domains related to Saint-Gobain's applications.

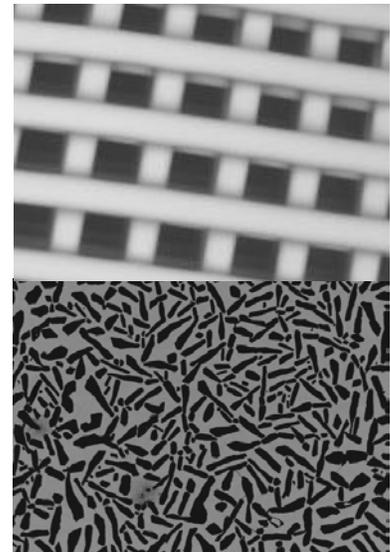
Our scientific objectives focus on functional ceramics, from synthesis to application testing. Investigating material textures at various length scales is the central research focus in LSFC : Both for porous materials (where we look for hierarchical porosity) and for dense materials (where we seek preferential orientations), we focus more on material structure (and associated processing method) than on material formulation.

Project description :

The researcher will investigate new methods for material texturation in bulk ceramics, in order to develop materials with local phase or orientation gradients (including composites). He/she will investigate the behavior and properties of these structures, which may open many opportunities in the field of ceramic materials. The researcher will apply high-end characterization methods in order to describe the obtained structure and understand the phenomena.

To build up structures with controlled texture, the researcher will rely on recently developed shaping techniques, among which additive manufacturing and ice-templating. Assessment of structure and functional properties (including mechanical properties) will be performed in the lab or through collaborations.

The researcher will be in charge of developing his/her research project and publishing the results, of obtaining funding from internal sources or by applying to calls, of managing students, of building a network of external contacts through collaborations and projects.



Position :

Permanent position (tenure staff) in CNRS section 15.

Competitive admission process (see [CNRS webpage](#)).

No teaching activity required.

Background and profile of the candidate :

The present position is open to a candidate with a previous experience in the field of materials science (an experience on ceramic materials would be a plus).

The candidate needs to have outstanding international experience. A PhD diploma and at least one post-doctoral experience are required, several publications in scientific journals are required.

Proficiency in English is required. Fluent French would be a plus.

Good interpersonal skills, ability to evolve in a multicultural team.

Taste for academic research and ability to interact with applied industrial R&D.

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