



Synthesis of Silicon Carbide—from Nano- to Bulk Single Crystals

Guest Editor:

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Message from the Guest Editor

Silicon carbide (SiC) is an advanced functional ceramic offering a unique combination of chemical, physical, and mechanical properties. This makes it one of the best materials for a wide variety of applications, such as for transportation, nuclear, concentrated solar, and aerospace, as well as more generally for all applications where long-term reliability and lifetime performance are needed. SiC is also a wide bandgap semiconductor, which is currently driving a profound evolution of power electronics, by significantly improving the efficiency of electrical power conversion and distribution. More recently, SiC has also shown its strong potential for biotechnologies. This material is therefore ideal for many applications.

From a scientific point of view, SiC has always been, and still is, a fascinating compound facing extreme not so conciliatory thermodynamics and has a tendency to crystallize in different polytypes.

This Special Issue aims to be a platform for papers dealing with the synthesis of silicon carbide, whatever the method, characterizations of the materials, and the study and optimization of functional properties.





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Message from the Editor-in-Chief

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