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Spark Plasma Synthesis under High Pressure for Advanced Materials

Guest Editors:

Dr. Alain Largeteau

1. University of Bordeaux, Bordeaux, France 2. ICMCB (UMR 5026) - CNRS, 33608 Pessac, France

Dr. Mythili Prakasam

ICMCB (UMR 5026) - CNRS, 33608 Pessac, France

Deadline for manuscript submissions: **closed (20 September 2023)**

Message from the Guest Editors

Spark plasma sintering is being increasingly employed in the field of sintering to increase the level of solid chemistry reaction that induces a decrease in the sintering temperature over a shorter duration by limiting grain growth. Spark plasma synthesis focuses on a new approach in advanced materials, such as the assembly of various materials (multimaterials), the densification of composites less than their melting temperatures, the welding of metal alloys, electromigration, etc.

The application of high pressure in SPS—instead of conventional pressure which is restricted to the use of graphite molds—with other types of molds allows a new high-pressure field in materials science for refractory compositions, high-pressure phases (diamond, cubic boron nitride, etc.), phase transitions, hydro(solvo)thermal, etc., for innovative fields of application.

Combination of the spark plasma process using highpressure tools for material synthesis will be addressed in this Special Issue.

To this end, we are pleased to invite you to submit a manuscript to this Special Issue. Full articles, papers and reviews are welcome.













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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Materials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials_Mdpi