Special Issue

Properties and Application of Alloys Prepared by Mechanical Alloying and Spark Plasma Sintering

Message from the Guest Editor

Among the formation of solid solutions a tremendous increase in the lattice defects actively also contributes to the overall strengthening. Besides, the process itself might result in a formation of finely dispersed oxidic particles, further strengthening the material at laboratory and elevated temperatures. However, these positive characteristics are partially offset by undesirable contamination of the alloy with the material from milling elements and the jar itself. Due to this, an optimal mix between process conditions, e.g. duration, speed, ball-to-powder weight ratio, and the consequential compaction via SPS shall be established to produce materials with superior properties. This Special Issue focuses on the materials prepared by a combination of mechanical alloying and spark plasma sintering that retains the beneficial character of the microstructure. We kindly invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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