

## Symposium 6 - Synthesis and Processing of Materials using SPS

Synthesis and processing of materials using electric fields/currents Electric fields and currents have been demonstrated to be effective in processing materials with unique properties and/or increasing processing efficiency. Of particular note is the wide spread application of currents for the consolidation of powders (often referred to as Spark Plasma Sintering (SPS), Field Assisted Sintering Technique (FAST), Current Activated Pressure Assisted Densification (CAPAD) among others). This symposium is in the spirit of previous symposia on SPS that were held in conjunction with past Pacrim meetings beginning in Pacrim7, Hawaii. The success of these symposia provided evidence of the continued worldwide growth of research and development activities in this field. The symposium is aimed at providing a forum for scientists and engineers to present and discuss results of various observations on a wide variety of topics related to current assisted processing and synthesis of materials. Experimental and modeling papers covering both fundamental as well as application-oriented studies are solicited.

### Proposed Session Topics

- Fundamental investigations on current activated densification of materials
- Modeling and simulation studies of current activated densification
- Consolidation of nanocrystalline materials
- Property evaluation of materials processed using electric currents
- Field activated synthesis

### ▪ Invited Speakers (Tentative)

**E. Olevsky** (San Diego State University, USA)

**Y. Sakka** (National Institute for Materials Science, Japan)

**M. Ohyanagi** (Ryukoku University, Japan)

**M. Tokita** (NJS Co., Ltd., Japan)

### ▪ Symposium Organizers

**Takashi Goto** (Institute for Materials Research, Tohoku University, Japan)

**Javier E. Garay** (University of California, Riverside, USA)

**Manshi Ohyanagi** (Ryukoku University, Japan)

**Sungjin Kim** (Kumoh National Institute of Technology, Korea)

**Yasuhiro Kodaera** (University of California, Riverside, USA)

**Byung-nam Kim** (National Institute for Materials Science, Japan)