

## S5-2 “Green Materials” and Green Processing for a Sustainable Society

### SHORT DESCRIPTION:

"This session delves into the critical role of ""Green Materials"" and ""Green Processing"" techniques in fostering a sustainable society. We'll explore ideas for designing "Green Materials"—sustainable, non-toxic, recyclable, and often renewable resource-based—to minimize ecological impact at each stage, from their materials to disposal. Concurrently, we will examine "Green Processing", focusing on manufacturing methods that conserve resources, reduce waste, and minimize energy consumption during material synthesis and product fabrication. These approaches are vital for lessening environmental footprints, promoting energy efficiency, and reducing waste.

Achieving these goals necessitates interdisciplinary collaboration among scientists, engineers, and policymakers. This session welcomes submissions and participation from experts, researchers, and industry stakeholders to exchange insights on innovative advancements in ""Green Materials"" and ""Green Processing"" for a sustainable society, particularly through the application of ""advanced ceramics"" and ""ceramic composites""."

### SESSION TOPICS:

- ☐ Functional and structural ceramics
- ☐ Advanced ceramic composites
- ☐ Miniaturization and nanomaterials
- ☐ Biocompatible materials and medical ceramics
- ☐ Recyclable ceramics and natural materials"
- ☐ Energy-efficient manufacturing
- ☐ Laser and plasma processing
- ☐ Green chemistry and catalysis
- ☐ Renewable energy applications
- ☐ Life cycle assessment for materials"

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