Symposium 36:
Second Young Professional Forum (YPF) in PACRIM

The focus of this symposium will rest on recent societal challenges in the new millennium, including—but not limited to—energy, health, and environmental aspects. In addition, novel material design paradigms are needed to fabricate materials with multifunctional applications that can bring solutions to some of today's biggest problems. This symposium aims to bring together young researchers and scientists from around the globe to discuss new approaches and challenges in materials synthesis, characterization, modeling and simulation, and to provide a platform for intensive exchange of ideas, knowledge, and networking.

<PROPOSED SESSION TOPICS>

- Multifunctional, porous, and catalytic materials
- Sensing materials, including gas, pollutant, and drugs sensors
- Energy: New solar cell materials, fuel cells, batteries, water splitters, and hydrogen generation techniques
- Environment: Green composites, bioplastics, Sustainable materials, CO2 capture, conversion and sequestration, and membranes and filters for air treatment
- Health: Diagnostics (imaging, sensing, and assays) and therapies (drug release, light-based photodynamic, and hyperthermic) to theranostics; semiconductor quantum dots, inorganic nanomaterials, carbon-based, and polymers; composites; from synthesis to application approaching assemblies; and biosensors and lab-on-a-chip
- Alternative synthesis approaches for advanced functional materials, including green chemistry, low-temperature, hydrothermal processes, and sustainable use of resources and recycling (quantum dots, nanoparticles, thin films, and one-dimensional structures)
- Innovative manufacturing technologies, including green manufacturing and additive manufacturing
- Technology development and entrepreneurship, from laboratory to industrial scale
- Information and communication technologies, including RF devices, terahertz devices, and MEMS
- Computing, simulation, and theoretical approaches towards new functional materials
- Emerging data-centric approaches using data-analytics or machine learning to facilitate materials design and development
- Global Networking — Challenges and Chances for Young Scientists, Accomplished scientists and thinkers are invited to influence the career development of young professionals.
- Young Professional Forum Speaking Contest
- Poster Award

<ORGANIZERS>

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<INVITED LECTURES>

Tentative invited lecture information is posted in the following URL;
http://www.ceramic.or.jp/pacrim13/list_of_invited_speakers.html#36