S6-3 Photoceramics - Synthesis, Functions and Applications of Optical and Colorful Ceramics

SHORT DESCRIPTION:

This symposium delves into the synthesis, characterization, properties, and applications of advanced functional ceramics, glasses, and glass-ceramics that interact with electromagnetic waves—including X-rays, ultraviolet, visible, and infrared light. We deal with critical materials essential for electronics, optics, medical devices, and exterior construction, such as fluorescent materials, optical sensors, nonlinear optical materials, wavelength converters, photocatalysts, and inorganic pigments. In addition, discussions will cover precise structural control, advanced processing and molding techniques, and photosensitization to enhance material properties. Furthermore, applications of these advancements in emerging technologies related to optics, electronics, and energy systems will be explored. Invited experts from various fields will present insights into the latest global research trends, fostering interdisciplinary discussions. We welcome contributions on phosphors (including transition-ion- and rare-earth-ion-doped, rare-earth-free, and plasmon-enhanced varieties), long-afterglow phosphorescent materials, quantum dot phosphors, photocatalysts, inorganic pigments, scintillators, dosimeters, and transparent functional thin films—such as transparent conductive films, anti-reflection coatings, and photocatalytic films—along with other related topics. By bringing together researchers and industry professionals, this symposium aims to foster collaboration and drive innovations in optical functional ceramics.

SESSION TOPICS:

Electronic, Optical and Magnetic Ceramics and Devices

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