

S9-1 Crystal Science - Recent progress in crystal growth technologies and materials research -

SHORT DESCRIPTION:

Suitable crystal growth techniques enable us to develop and discover promising functions of materials. Thus, challenges to explore novel crystal growth techniques and conditions to realize high quality and high performance single- and poly- crystal materials are essential to develop future advanced materials. Against this background, this symposium will focus on the exploration of crystal growth techniques for single- and poly- crystal materials and the evaluation of quality and performance of the grown crystals. Various crystal growth techniques such as vapor, liquid, and solid phase growth are of interest. Examples include, but are not limited to chemical vapor deposition, flux growth, Bridgman–Stockbarger method and other solution or melt growth techniques. Moreover, analysis, calculation, machine learning and evaluation of growth behaviors or/and grown crystals are also in scope. The target materials cover electronic, optical, structural and other functional materials in forms of fine powder, bulk crystals, thin films and so on. In addition to the above mentioned, presentations from the viewpoint of practical applications are also welcome. The participants shall find “seeds” and “ideas” of novel research topics and techniques through participation in this symposium. Furthermore, this symposium plans to have oral and poster sessions with presentation award for young researchers to foster future leaders in this field.

SESSION TOPICS:

Crystal Growth, Single crystal, Search for the Functional Materials, Evaluation for the Crystal, Flux growth

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