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Modeling of Crystal Growth

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Deadline for manuscript submissions:
closed (31 January 2021)

Message from the Guest Editors

Dear Colleagues,

Modeling of crystal growth is an important tool to understand fundamental aspects, support experimental work, and contribute to optimization of industrial processes. The classical numerical methods listed below are being extended by the concept of big data and machine learning.

We invite all authors to contribute to this Special Issue by giving an overview of the current methods, limits, and challenges linked to modeling of crystal growth.

Articles are welcome applying calculations on:
Atomistic scale • Microscopic and mesoscopic scale • Macroscopic scale • Coupling scales and multiphysics.

Type of crystal growth might be:
Bulk crystal growth • Epitaxy • Growth of nanostructures • Industrial crystallization.

Subjects might include:
Growth conditions and polymorphism • Growth kinetics • Defect dynamics • Thermal and stress fields • Influence of convection • Optimization of growth process.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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