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Crystallization Process and Simulation Calculation

Guest Editors:

Dr. Mingyang Chen

State Key Laboratory of Chemical Engineering, School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China

Dr. Jinbo Ouyang

School of Chemistry, Biology and Materials Science, East China University of Technology, Nanchang 330013, China

Dr. Dandan Han

State Key Laboratory of Chemical Engineering, School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China

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Message from the Guest Editors

As an important unit operation, crystallization is a process in which nucleation, growth, agglomeration, and breakage are regulated to produce high-quality crystals and achieve efficient separation as well as purification. Since a crystallization process often presents the characteristics of strong coupling, nonlinearity, and large lagging, it is a challenge to rationally design a robust, well-characterized process to efficiently crystallize and prepare a high-quality crystalline product. The development of process analytical technology that can provide fast and accurate inline or online measurement is of great importance in the design and control of crystallization processes. Simulation technology, e.g., molecular dynamics simulation and hydrodynamics simulation, can provide a time- or location-dependent insight into the process on multiple scales. These experimental and simulation tools can greatly help to further investigate crystallization processes.

This Special Issue serves to provide a platform for researchers to report results and findings in crystallization process technologies, simulation and process analytical technologies, and relevant crystallization studies



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Special Issue



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Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, PI, Italy

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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Contact Us

Crystals Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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