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# Advanced Technologies for Protein Crystal Optimization and Delivery of Protein Crystals

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# **Message from the Guest Editors**

Over the last years, the establishment and continuous development of Serial Femtosecond Crystallography (SFX) at X-Ray Free Electron Laser (XFEL) radiation sources and the establishment of Serial Crystallography (SX) at high brilliant synchrotron radiation (SR) sources indicate that the methods and procedures applied in modern protein crystallography to collect diffraction data have changed substantially and will continue to do so for the next decade. The latest serial diffraction data collection methods, including corresponding crystal delivery procedures via jets, tape drive or chips, emphasize the increasing efforts towards developing new and efficient procedures to produce protein micro- and nano-crystals, including the challenge of preparing and scoring crystalline suspensions to meet particular crystal delivery methods at SR and XFEL beamlines. This Special Issue aims to summarize and provide insight regarding the latest methods in crystallogenesis to produce micro- and nanosized crystals, besides conventional single crystal production, in vitro and in vivo. Further, particular methods to characterize crystalline suspensions will be included.











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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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