

Special Issue

Luminescence and Magnetism in Lanthanide-Based Coordination Polymers

Message from the Guest Editors

Lanthanide-based coordination polymers (Ln-CPs) have attracted an increasing amount of interest in the last two decades. The unique magnetic and optical properties of lanthanide(III) ions have attracted research on the preparation of Ln(III)-based molecular materials such as single-molecule magnets or luminescent materials. Among them, efforts have been devoted to the integration of these properties in Ln-CPs. Indeed, the organization of Ln(III) ions in CPs is of substantial importance for the processability of the functional material, a key feature for many applications. Through a careful choice of the organic linker, Ln-CPs have been developed and shown promising applications as sensors, light-emitting materials, layered magnets, and triboluminescent materials in optics.

This Special Issue aims to outline recent efforts on the synthesis and structural characterization of Ln-CPs, with an emphasis on their unique magnetic and photophysical properties, processability, but also on the influence of crystal growth parameters that will allow us to identify and develop the future design and applications of Ln-CPs.

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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.

Editor-in-Chief

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