

## Special Issue

# Halogen and Chalcogen Bonding in Crystal Design

### Message from the Guest Editors

Halogen (XB) and chalcogen bonds (ChB) are two subclasses of noncovalent interactions and they are studied in a diverse range of fields such as crystal engineering, molecular recognition, materials science, synthesis, catalysis, etc.

There are two main factors that make XBs and ChBs extremely useful tools in the design of 1D, 2D or 3D crystal structures – their high directionality and the possibility of modulating their strength through introducing an electron-withdrawing/releasing group at the core structure of molecules. Thus, the rational selection of substrates can result in the formation of supramolecular architectures, which in turn determine the properties of the obtained materials.

In this context, expanding the knowledge of XBs and ChBs is of fundamental importance. Thus, this Special Issue, “Halogen and Chalcogen Bonding in Crystal Design”, intends to gather scientific papers on recent advances in the construction of organic, inorganic or hybrid crystalline materials where XB and ChB are involved. All approaches will be considered, including original theoretical papers, experimental studies, and review reports.

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### Guest Editors

Dr. Teresa Olszewska

Prof. Dr. Jarosław Chojnacki

Dr. Jan Alfuth

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### Deadline for manuscript submissions

closed (30 November 2025)



## Materials

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### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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