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.

Guest Editors

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Inorganic chemistry remains a lynchpin of modern chemistry, not only embracing the function and reactivity of combinations of most elements of the periodic table, but also providing a footing for studies of materials, catalysts, drugs, fuels and industrial chemicals. Arguably, the role and reach of inorganics in society have never been as great as today. Adventurous research at the heart and at the extremes of inorganic chemistry is vital to further advances and Inorganics offers authors the opportunity to publish exciting new research in an open access format.

Editor-in-Chief

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