

Special Issue

☒ and π Holes: A New Class of Non-Covalent Interactions

Message from the Guest Editor

For many years, the research field of the non-covalent interactions has been largely dominated by electrostatic interactions and especially hydrogen bonding interactions. Recently, the study of new non-covalent interactions, based on the existence of the denominated sigma or pi hole, has grown enormously from a theoretical and experimental point of view. Without any doubt, halogen bonding interactions have become in the most promising interactions and numerous examples have been reported. Motivated by the relevance of the results obtained for halogen atoms, many researchers have focused their research on the study of other groups: aerogen, chalcogen, pnictogen, tetrel and icosagen atoms. This Special Issue aims to highlight the role of this brand new form of noncovalent interaction that has recently appeared in several research fields, including catalysis, crystal engineering, molecular recognition, materials science, as well as theoretical aspects.

Guest Editor

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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