



## Polyborates: Applications, Synthesis, and Structural and Physical Properties

Guest Editor:

**Prof. Dr. Michael A. Beckett**

School of Natural Sciences,  
Bangor University, Bangor LL57  
2UW, UK

Deadline for manuscript  
submissions:

**closed (31 December 2019)**

### Message from the Guest Editor

Polyborates are a class of inorganic compound (salt) containing boron atoms within their anionic moieties. These boron atoms are bound solely to oxygen and can adopt either trigonal-planar or tetrahedral connectivity. The cations of these salts can be ‘naked’ metals (e.g. Na<sup>+</sup>), organic, or transition-metal complexes and furthermore, polyborates may also be anhydrous or hydrated. Consequentially, polyborates show immense solid-state structural diversity with ‘hydrogen-bonded insular systems’ and ‘supramolecular polymeric systems’ well represented within the class. Polyborates have unique properties and a few have been used in the production of a wide variety of bulk products such as insulation fiberglass, specialty glasses, enamels and glazes, fertilizers, biocides, fire retardants, detergents. The intent of this Special Issue is to focus on the most recent advances in polyborate chemistry ranging from fundamental aspects to current and potential applications. Full papers, communications, and reviews on these topics are welcome.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical  
Biology and Phytochemistry,  
University of Münster,  
Corrensstrasse 48, D-48149  
Münster, Germany

## Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th 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 multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (Chemistry, Multidisciplinary) / CiteScore - Q1 (Chemistry (miscellaneous))

## Contact Us

---

*Molecules* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/molecules](http://mdpi.com/journal/molecules)  
[molecules@mdpi.com](mailto:molecules@mdpi.com)  
[X@Molecules\\_MDPI](#)