Special Issue

Molecular Engineering and Applications of Protein Cages and Cavities

Message from the Guest Editor

The ability to encapsulate "guest" molecules such as drugs, biophysical probes, enzymes, and inorganic catalysts, among other entities, within the cavity of complex multisubunit proteins is an enabling strategy to fabricate novel bionanomaterials with unique functionality. Proteins such as ferritins, virus-like nanoparticles, vault proteins, encapsulins, as well as cavity containing large enzymes such as lumazine synthase and chaperonins, are being employed to expand the controlled incorporation of guest molecules within them. Furthermore, the bioconjugation of the outer surfaces of these cage proteins results in the potential to target these macromolecular structures to cells, microorganisms, tissues, and inorganic devices. This special issue on Molecular Engineering and Applications of Protein Cages and Cavities will serve to collect and present the current state-of-the-art in the design, fabrication, and applications of these exciting biosystems.

Guest Editor

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in Biomolecules so far. We would be delighted to welcome you as one of our authors.

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