

Special Issue

Recent Advances in Protein-Graphene Supramolecular Assemblies

Message from the Guest Editor

The interactions occurring between biomolecules and 2D nanomaterials rely on dynamic molecular forces that must be controlled to achieve geometrical assemblies. The flexible molecular surfaces of biomolecules allow them to combine with different surfaces leading to several nanometric architectures which may exhibit new or improved physical, chemical as well as biochemical properties. This Issue is addressed to report on both fundamental and applied studies with examples of bio-tailored materials and their applications. Due to the growing interest towards bio-based materials addressed to next-generation sequencing, molecular detection and sensing. The issue welcomes the following themes:

- biochemical and computational analysis of proteins-2D nanomaterials interactions;
- assembly of novel nanostructures including protein, protein-nucleic acids complexes and 2D nanomaterials such as graphene, molybdenum disulfide and others;
- applications in bionanotechnology
- artificial intelligence to build new hybrid materials

Guest Editor

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