Special Issue

Exploration of Organometallic Materials and Beyond for Sustainable Energy Applications

Message from the Guest Editors

Organometallic materials hold great potential, possessing the advantages of both organic and metallic materials. Organic segments provide wide space for the adjustment of the molecular energy levels and bandgap, as well as solubility, crystallinity, and flexibility. Metallic segments involving cheap metal or heavy metal facilitate improvements in molecular stability, molecular packing, and the yield of triplet excitons and catalytic centers. Therefore, research on highly efficient organometallic materials and their optoelectronic application would attract considerable attention around the world. This Special Issue aims to synthesize recent developments and trends in novel green energy materials and their sustainable applications.

- Design of novel metal complexes;
- Design of triplet materials;
- Design of green energy materials
- Design of metallated photovoltaic small molecules and polymers;
- Design of metallated catalysis materials;
- Organic photovoltaics;
- Non-fullerene organic solar cells;
- Organic photodetectors;
- Organic memristors;
- Phosphorescent organic light-emitting diodes;
- Dynamics of triplet excitons in optoelectronic devices.

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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.

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