Special Issue

Multifunctional High Spin Molecules and Singlet Biradicals

Message from the Guest Editor

Multispin organic compounds are promising for organic magnets, spintronics, sensors, memory devices, spin transport, spin filters and as semiconductor materials. While for organic magnets, air-stable spin compounds with a large energy gap between the high-spin ground state and low-spin excited state are desired for other applications, a thermally excited high-spin state can also be of interest where the low-spin ground state can be switched by temperature or magnetic field into the high spin state. Such magnetic field-induced triplet excitation can even lead to higher ordered magnetic states in the case of 3D described as Bose–Einstein condensates of triplon excitations. Redox reactions of functionalized stable mono or diradicals, on the other hand, can be applied as spin switches towards a higher spin state. Singlet biradicals of polycyclic aromatics have gained tremendous interest in recent years and are foreseen for many applications which further develop.

Guest Editor

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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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