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Physical Chemistry of Aqueous Solutions and Glass Forming Systems

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Message from the Guest Editors

The thermodynamical behaviors of aqueous solutions resemble those of glass-forming systems and can be studied in the same theoretical framework, for example, that of the mode coupling theory. In fact, the hydrogen bonding ability of water, which is progressively enhanced by lowering the temperature, allows the formation of local clusters and dynamical heterogeneities, as in glass-forming systems. This holds also for aqueous solutions, such as hydrated proteins or water/alcohol mixtures. Thus, the importance of establishing a rigorous picture for these systems is at the borderline among physics, chemistry, biology, technology, and life science.

This Special Issue aims to cover recent advances in the experiments, theoretical modeling, and simulations within this area and toward nanotechnologies. Water, in fact, is the medium par excellence for the “development” of nanosystems, mainly polymers, with both hydrophobic and hydrophilic moieties showing competing properties.

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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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