

Special Issue

Synthetic Receptor Molecules for and with Amino Acids and Peptides

Message from the Guest Editor

Since the Nobel Prize in 1987, supramolecular chemistry has considerably matured. However, the construction of functional supramolecular ligands for specific interference with biological systems is still in its infancy. Amino acids are the smallest building blocks for peptides and proteins. The design of artificial ligands with high affinity and selectivity for amino acids and peptides at physiological conditions is a challenging field, since these targets are small, highly polar and therefore well solvated. Peptides are in most cases highly flexible and dynamic; in addition, specific ligands must distinguish between a large number of possible sequences. On the other hand, advanced host molecules may be used for sensing applications and the elucidation of biological mechanisms as well as therapeutic agents. Powerful peptide recognition finally is a prerequisite for the recognition of proteins.

Guest Editor

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