

Expanded carbaporphyrinoids

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The review outlines the progress in the field of synthetic expanded carbaporphyrinoid chemistry. The evolution of the topic is documented by demonstration of expanded porphyrin-inspired systems incorporating variety of entities that introduces carbon atom(s) into the macrocyclic cavity. The discussion starts with platyrins – the macrocycles that were identified as parent molecules not only for the expanded carbaporphyrinoids, but carbaporphyrinoids class in general. Following historic considerations, the plethora of expanded porphyrin-like macrocycles containing N-confused or neo-confused pyrrole motifs, and different carbocyclic subunits were presented. Special emphasis was given to applications of expanded carbaporphyrinoids in different areas including organometallic chemistry, switching systems or aromaticity, eventually concluding with demonstration of a covalent cage based on the expanded carbaporphyrinoid.

Słowa kluczowe

porphyrin, macrocycle, Aromaticity, carbaporphyrinoid,
supramolecular system

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