

Aromaticity switching in porphyrinoids.

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The aromaticity of porphyrinoids can be substantially altered by reversible modification of their original electronic structures. Well-defined modulators can be used as a means to initiate these modifications, including redox processes, acid-base chemistry, and conformational phenomena. This Focus Review emphasizes the situation for which a single macrocyclic frame alternatively adopts diatropic and paratropic features and both situations are readily and mutually exchangeable. Eventually, such a porphyrinoid transformation can be explored as a suitable element to construct switchable optoelectronic materials.

Słowa kluczowe

antiaromaticity, aromaticity, NMR spectroscopy, nuclear-independent chemical shift, porphyrinoids

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