Organoboron complexes in edge-sharing macrocycles: the triphyrin(2.1.1)-tetraphyrin(1.1.1.1) hybrid.

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Streszczenie

The formation of a precisely designed environment predefined for stabilizing electron-deficient atoms, such as boron(III), is an important approach for optimizing the properties of a chromophore. A triphyrin(2.1.1) motif built on the extended π-system of a tetraphyrin(1.1.1.1) skeleton creates a new coordination environment, with a CNN set of donors confined in a limited space predefined for binding small cations. The entrapment of boron(III) in the triphyrin(2.1.1) sector, with formation of a direct B−C bond, significantly changes the optical response and the global aromatic character of the compound, leading to an extension of the π-delocalisation.

Słowa kluczowe

Aromaticity, boron, optical properties, tetraphyrin, Triphyrin

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