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Magnetic properties of *altan*-[n]annulenes

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The altanisation strategy is applied to [n]annulenes to give *altan*-[n]annulenes.[1] In particular, *altan*-[24]annulene and *altan*-[30]annulene were examined in this study. These macrocyclic systems show unique optical, electrochemical, and magnetic properties.[2] The structure of the studied molecules can be rationalized by means of an annulene-within-an-annulene model. The pseudo-π method for current density calculations was performed. In *altan*-[24]annulene, both annulene subunits sustain diatropic (aromatic) character in singlet and triplet states. On the other side, in *altan*-[30]annulene the outer ring sustain paratropic (antiaromatic) currents, but the inner ring sustain diatropic currents in the singlet state, but in the triplet state, both subunits sustain diatropic currents. Calculated *ef* values confirmed more intensive circulations in six-membered rings than in five-membered rings.

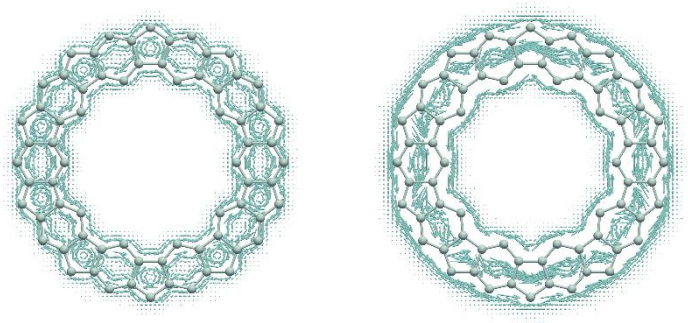

Figure 1. Maps of pseudo-π currents of altan-[30]annulene in singlet (left) and triplet state (right)

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