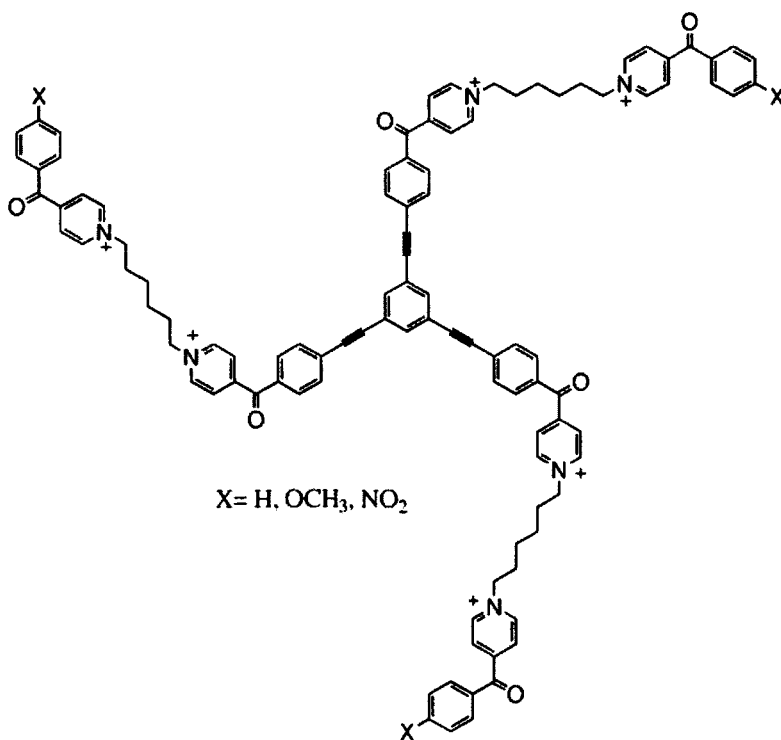


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Redox-active star molecules incorporating the 4-benzoylpyridinium cation: implications for the charge transfer efficiency along branches vs. across the perimeter in dendrimers

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We report the redox properties of four star systems incorporating the 4-benzoyl-N-alkylpyridinium cation; the redox potential varies along the branches, but remains constant at fixed radii. Voltammetric analysis (cyclic voltammetry and differential pulse voltammetry) shows that only two of the three redox-active centers in the perimeter are electrochemically accessible during potential sweeps as slow as 20 mV/s and as fast as 10 V/s. On the contrary, both redox centers of a branch are accessible electrochemically within the same time frame. These results are discussed in terms of slow through-space charge transfer and the globular 3-D folding of the molecules.



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