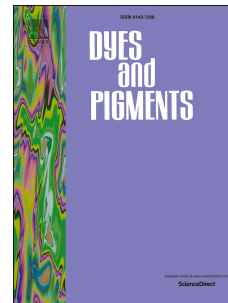


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β -substituted donor-acceptor porphyrins: Synthesis, energy transfer and electrochemical redox properties

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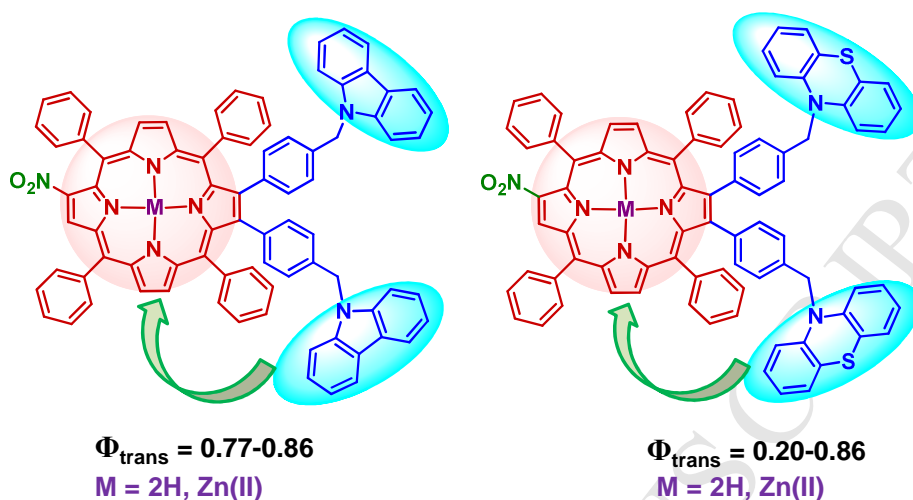
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Graphical Abstract



A series of β -functionalized D-A porphyrins have been synthesized *via* Suzuki coupling reaction. Synthesized free base porphyrins exhibited very high protonation constants ($\log\beta_2 = 9.59-10.45$). An efficient Förster resonance through bond energy transfer (78-88%) from β -substituents to macrocyclic core was supported by steady state and time resolved fluorescence measurements. Free base β -trisubstituted porphyrins exhibited highest protonation constants so far known in the literature.

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