New Conjugated Fluorenyl-Porphyrin Dendrimers for Optics

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In 2004, we synthesised a porphyrin possessing four fluorenyl arms (TFP), with a remarkable high quantum yield (24%), compared to the reference TPP, demonstrating the capacity of the fluorenyl units to enhance quantum yields.\(^1\) Then, to exploit this efficiency, a series of porphyrin dendrimers based on TPP porphyrin core and bearing fluorenyl dendrons was prepared like OOFPP.\(^{2,3}\) Different applications were exploited: as the fabrication of red Organic Light Emitting Diodes (OLEDs),\(^{4-6}\) and supramolecular assemblies.\(^7\) Then a new family of conjugated porphyrin dendrimers, still based: based on TPP, is considered like TPP4,5,6.\(^{8}\) Luminescence and nonlinear optical properties will be discussed.

References:
