Porphyrin-ryleneimide hybrids : low-bandgap acceptors in energy-transfer cassettes.

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Streszczenie

Energy transfer cassettes consisting of naphthaleneimide-fused metalloporphyrin acceptors (M = Zn and Pd) and BODIPY donors have been designed and synthesized. These systems have rigid pseudo-tetrahedral structures with a donor–acceptor separation of ca. 17.5 Å. Spectroscopic investigations, including femtosecond transient absorption measurements, showed efficient excitation energy transfer (EET) occurring according to the Förster mechanism. Strong fluorescence of the donor units and significant spectral overlap of the donor and acceptor subunits are prerequisites for the efficient EET in these systems.

Słowa kluczowe

porphyrins, BODIPYs, chromophores, energy transfer, femtosecond spectroscopy

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