Donor-Acceptor-Dyads with ^{15}N-labeled Triarylamine-Donor for Investigations of the Magnetic Field Dependent Spin Interconversion

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One main driving force behind spin interconversion in charge-separated states of organic bridged donor-acceptor compounds is the hyperfine interaction between radical electrons and the nuclei.[1, 2] Therefore, the ^{14}N isotope in the triarylamine donor was replaced by the ^{15}N isotope to study the resulting effects on spin interconversion. This was achieved by transient spectroscopy experiments in a tunable external magnetic field.

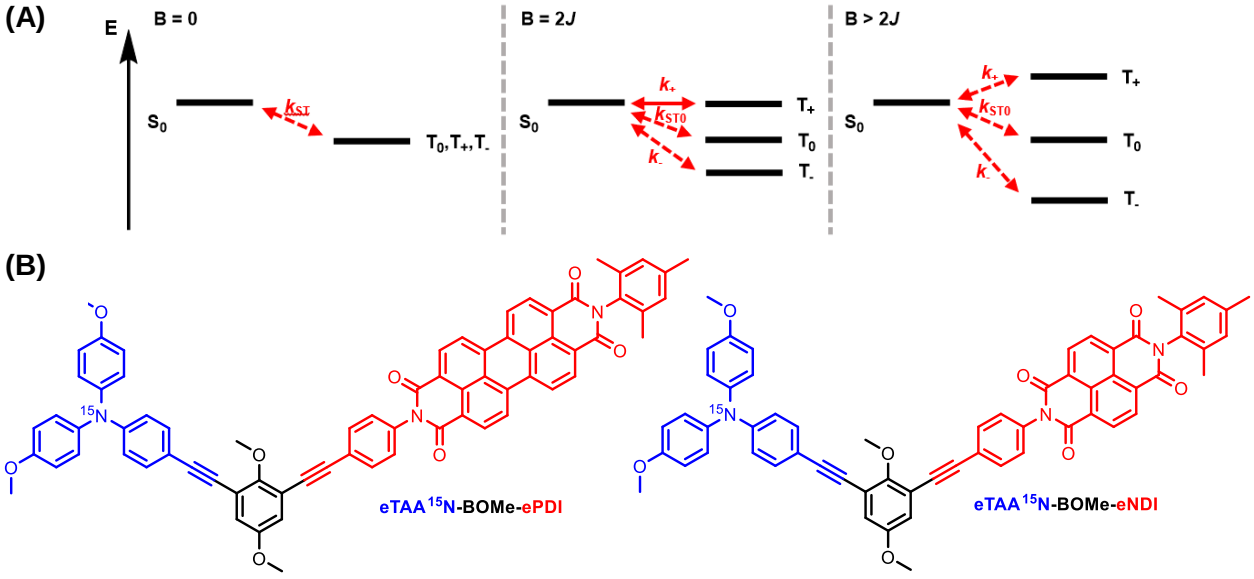

Figure 1: Magnetic field dependency of spin interconversion resulting from *Zeeman*-splitting in an external magnetic field **(A)** and investigated ^{15}N-labeled compounds **(B)**.

References:

[1] U. E. Steiner, T. Ulrich, Chem. Rev. 1989, 89, 51-147.
[2] B. Brocklehurst, Chem. Soc. Rev. 2002, 31, 301-311.