

Supplementary Material

Triplet States with Unusual Spin Polarization Resulting from
Radical Ion Pair Recombination at Short DistancesGary P. Wiederrecht,^a Walter A. Svec,^a and Michael R. Wasielewski^{a,b*}^aChemistry Division, Argonne National Laboratory,
Argonne Illinois, 60439-4831, USA
and^bDepartment of Chemistry, Northwestern University,
Evanston, Illinois 60208-3113, USA
andTamar Galili,^c and Haim Levanon,^{c*}^cDepartment of Physical Chemistry and The Farkas Center for Light-Induced Processes
The Hebrew University of Jerusalem, Jerusalem 91904, Israel

Proton NMR spectra were obtained on a Bruker AM-300 300 MHz spectrometer. Mass spectra were obtained with a Kratos MALDI spectrometer. UV-visible spectra were obtained with a Shimadzu UV-160 spectrometer. Merck silica gel 60 was used for column chromatography. All solvents were reagent grade and distilled before use.

D-A:

N-amino-4-(1-piperidinyl)naphthalene-1,8-dicarboximide⁸ (550 mg, 1.86 mmol) and *N*-(*n*-octyl)-naphthalene-1,8-dicarboxyanhydride-4,5-dicarboximide¹⁰ (1.06 g, 2.79 mmol) were refluxed in DMF (20 ml) under N₂ for 18 hrs. The DMF was removed on a rotary evaporator and the residue was taken up CH₂Cl₂ and chromatographed on silica gel using 4% acetone/ CH₂Cl₂ as the eluent to yield 947 mg of **D-A**, 77%. Mass spec: 656.2 (calc. 656.8); ¹H NMR (δ in CDCl₃): **D**: 8.61 (d, J=7.5 Hz, 1H, 7-naphthyl); 8.57 (d, J=8.1 Hz, 2-naphthyl); 8.49 (d, J = 8.4 Hz 1H, 5-naphthyl); 7.74 (d of d, 1H, J=7.5 Hz, J=8.4 Hz, 6-naphthyl); 7.24 (d, J=8.1 Hz, 1H, 3-naphthyl); 3.30 (m, 4H, piperidine); 1.92 (m, 4H, piperidine); 1.76 (m, 2H, piperidine); **A**: 8.83 (AB quartet, 4H, naphthalene ring), 4.22 (t, 4 H, N-methylene), 1.29 (broad singlet, 24 H, octyl chain), 0.89 (t, 6 H, 6.6 Hz, octyl chain methyl).