

Nonlinear Optical Behavior of n-Tuple Decker Phthalocyanines at Nanosecond Regime: Investigation of Change in Mechanisms

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KEYWORDS: Coordination algorithm; n-tuple decker phthalocyanines; mechanisms; π -electron system; triplet population; cross sections.

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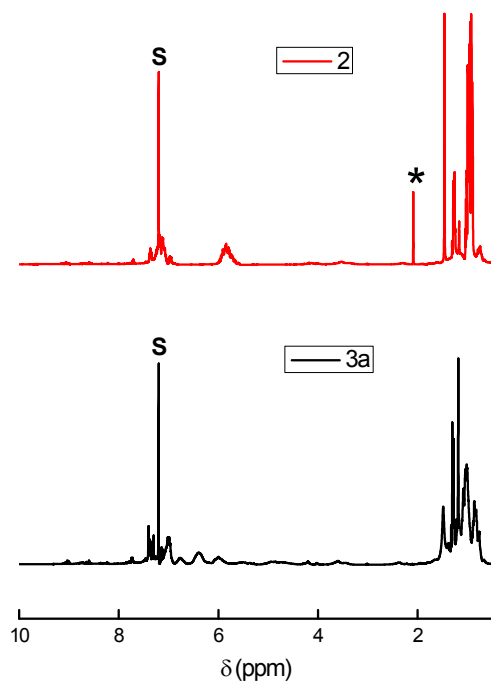


Figure S1: ^1H NMR spectra for complexes **2** and **3a** in CDCl_3 shown as examples. The solvent and water impurities are with "s" and an asterisk, respectively.

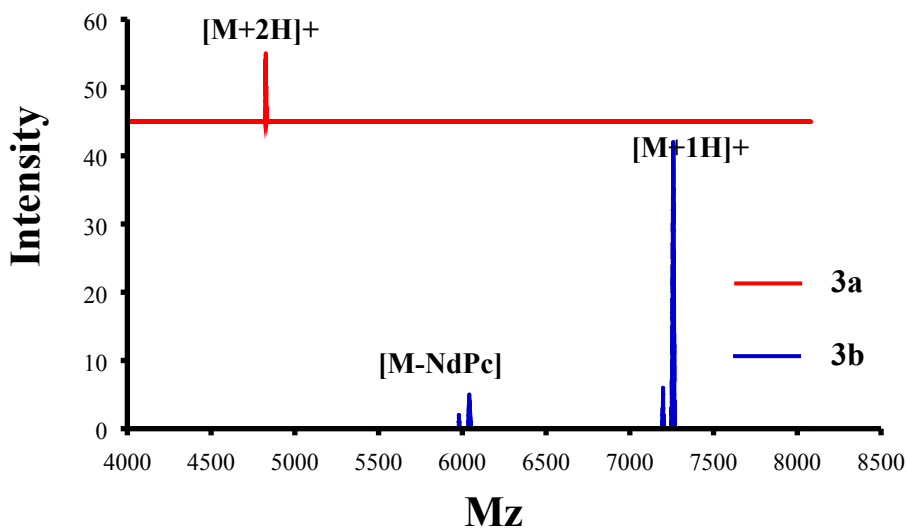


Figure S2: The mass spectral signatures for complexes **3a** and **3b** used as an example for the data presented in this manuscript. The cleaving off of NdPc from complex **3b** was detected.

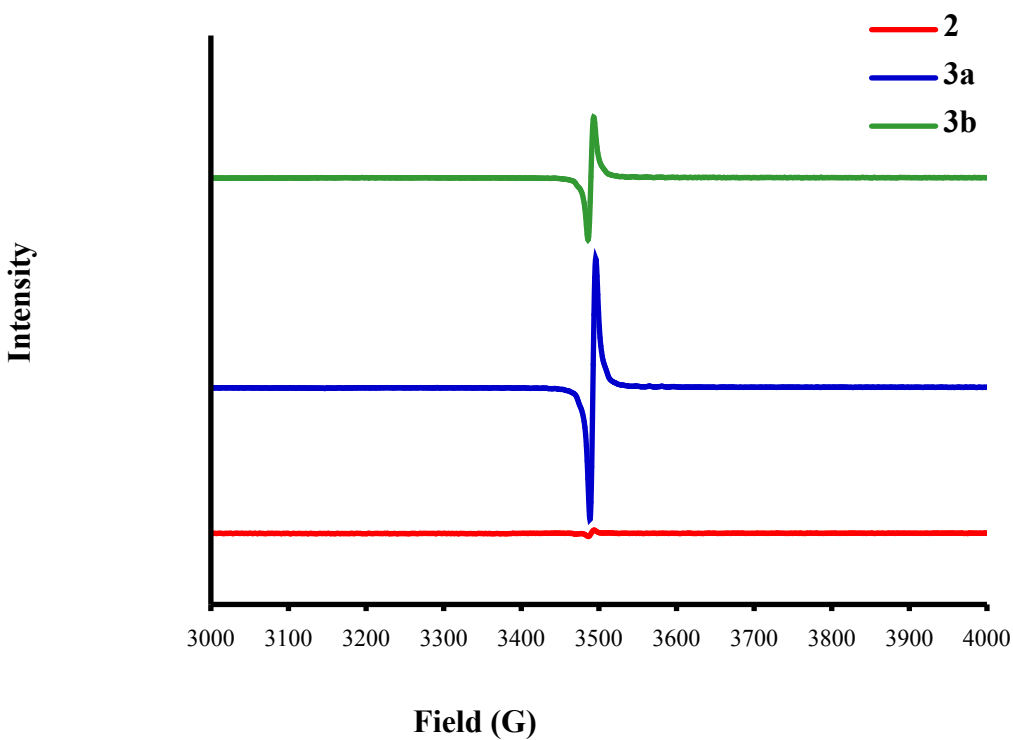


Figure S3: The ESR signals for complexes **2**, **3a** and **3b** in powder form. It can be observed that **3a** and **3b** are more paramagnetic than **2**.

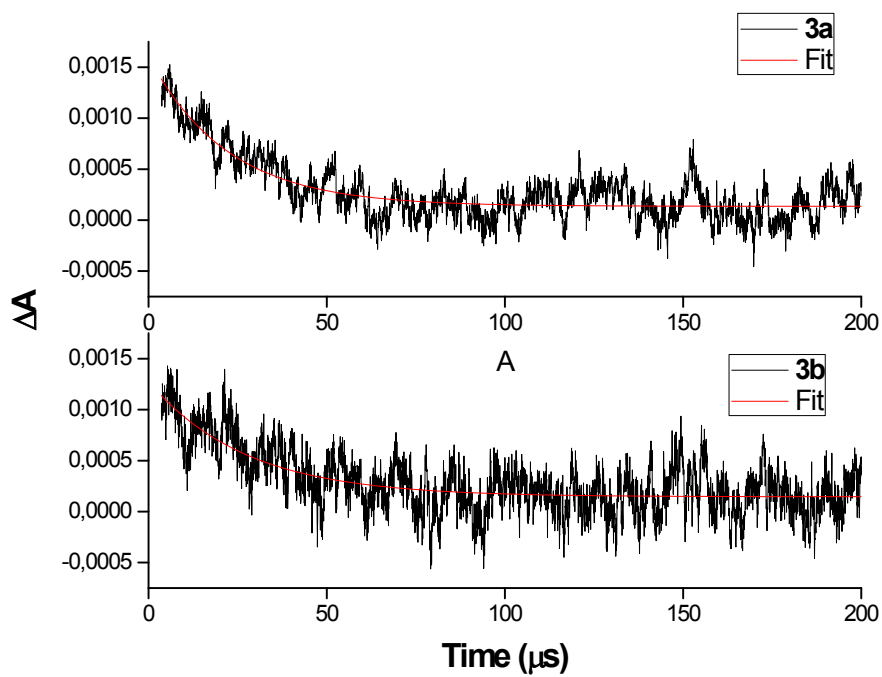


Figure S4: Triplet decay curves for complexes **3a** and **3b** obtained in tetrahydrofuran using laser flash photolysis. The triplet lifetimes for complexes **3a** and **3b** were 27 μs and 22 μs , respectively.

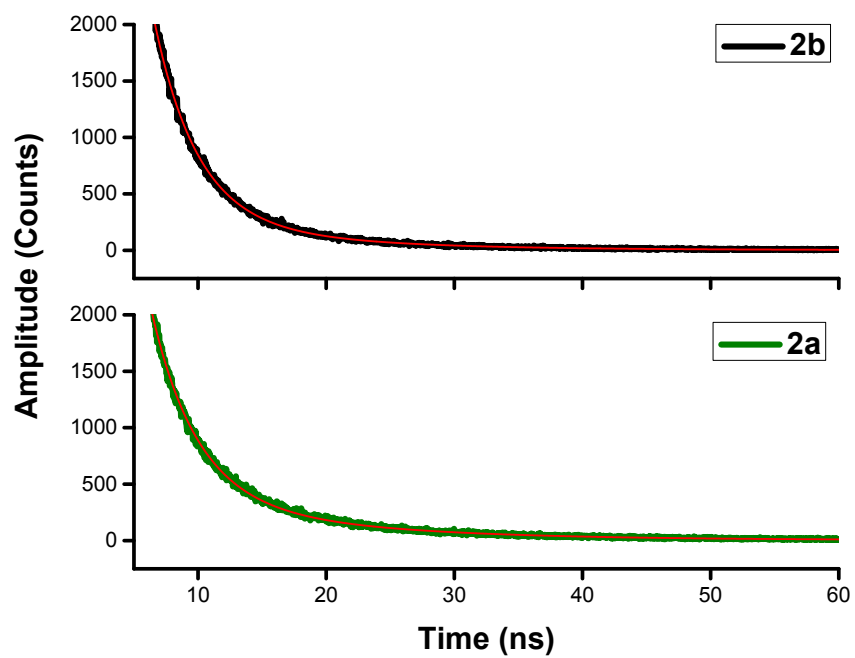


Figure S5: Luminescence decay curves for complexes **3a** and **3b** obtained in dichloromethane using TCSPC. The luminescence lifetimes for complexes **3a** and **3b** were 5.4 ns and 4.5 ns, respectively.

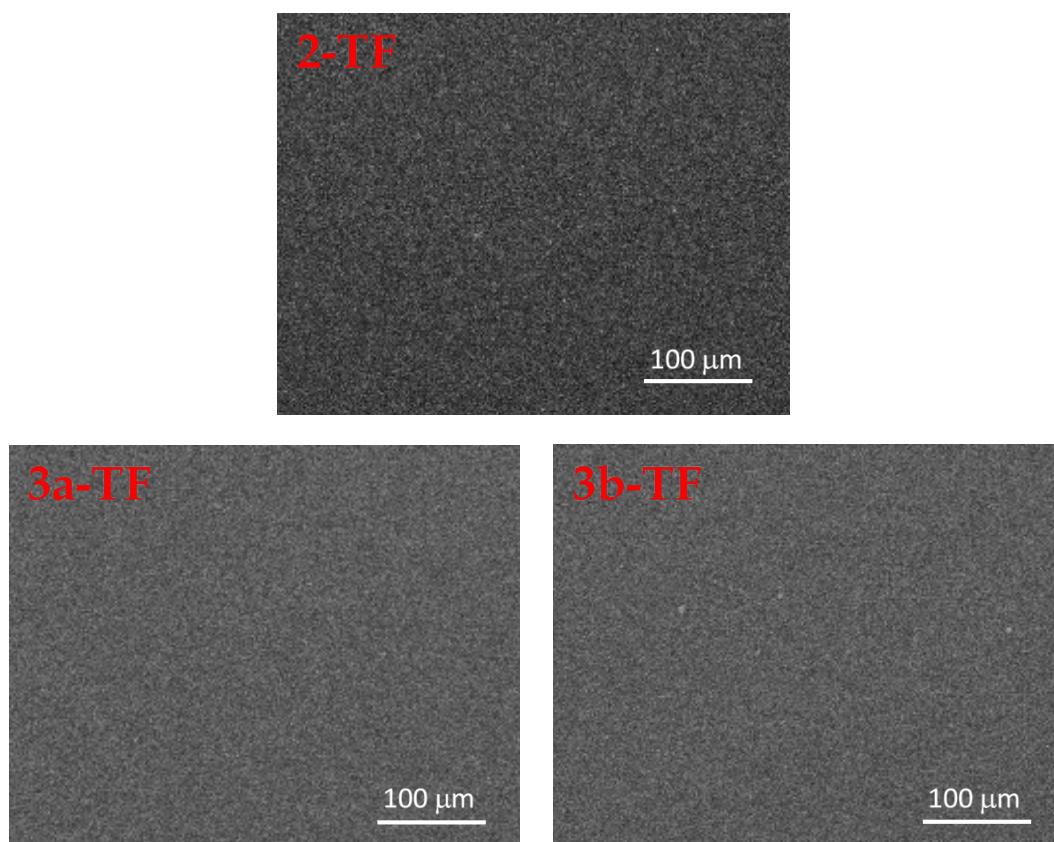


Figure S6: SEM images of **2-TF**, **3a-TF** and **3b-TF** indicating homogeneity and lack of damage on the laser-irradiated surfaces.