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Equipment

Elemental analyses were obtained from Carlo Erba 1106 Instrument. Infrared spectra in KBr pellets were recorded on a Perkin Elmer 983 spectrophotometer. Electronic absorption spectra in UV-visible region were recorded with an Shimadzu 1650 UV Vis-NIR spectrophotometer and Varian 500 UV-Vis/NIR spectrophotometer. Fluorescence excitation and emission spectra were recorded on a Varian Eclipse spectrofluorometer using 1 cm pathlength cuvettes at room temperature.

Mass spectra were recorded on the Thermo LCQ DECA XP-Max. Calibration (m/z 100-4000) was achieved according to the standard calibration procedure. ^1H and ^{13}C NMR spectra were recorded in DMSO-d₆ and CDCl₃ solutions on a Bruker and Varian 500 MHz spectrometers.

Photo-irradiations were done using a General Electric Quartz line lamp (300W). A 600 nm

glass cut off filter (Schott) and a water filter were used to filter off ultraviolet and infrared radiations respectively. An interference filter (Intor, 670 nm with a band width of 40 nm) was additionally placed in the light path before the sample. Light intensities were measured with a POWER MAX5100 (Mol electron detector incorporated) power meter. Triplet absorption and decay kinetics were recorded on a laser flash photolysis system, the excitation pulses were produced by a Quanta-Ray Nd: YAG laser providing 400 mJ, 90 ns pulses of laser light at 10 Hz, pumping a Lambda-Physik FL3002 dye (Pyridin 1 dye in methanol). Single pulse energy was 2 mJ. The analyzing beam source was from a Thermo Oriel xenon arc lamp, and a photomultiplier tube was used as a detector. Signals were recorded with a two-channel digital real-time oscilloscope (Tektronix TDS 360); the kinetic curves were averaged over 256 laser pulses.