Novel Approach to Synthesize Polymers for Potential Photodynamic Therapy: from Benzendinitrile to Phthalocyanine

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Supporting Information

Fig. S1 $^1$H-NMR spectrum of 4-(6-hydroxyhexyloxy) phthalonitrile (HHPN).

Fig. S2 $^1$H-NMR spectrum of 2-methyl-acrylic acid 6-(3,4-dicyano-phenoxy)-hexyl ester (MADCE).
**Fig. S3** $^1$H-NMR spectrum of 4-(octyloxy) phthalonitrile (OPN).

**Fig. S4** UV-Vis spectrum of polymer before (P1) and after modification (Pc1) in DMF.
**Fig. S5** Comparison of UV-Vis spectra of Pc-containing polymers and ZnPc in DMF.

**Fig. S6** FT-IR spectra of polymers before (P1) and after modification (Pc1).
Fig. S7 GPC traces of polymers before and after modification.

Fig. S8 Fluorescence spectra of polymers in DMF. (0.002mg/mL, λ<sub>ex</sub> = 620 nm)
Fig. S9 Absorption spectra for the determination of singlet oxygen quantum yield of Pc1 and Pc2 in aqueous media. (ADMA: 0.027 mg/ml, ZnPcS$_4$: 0.016 mg/ml, Pc1: 0.15 mg/ml, Pc2: 0.4 mg/ml)