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SUPPLEMENTARY MATERIAL TO

Aromatic polyesters with photosensitive side chains: Synthesis, characterization and properties

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ANALYTICAL AND SPECTRAL DATA FOR **1**, **2** AND **PE4b**

*2-Bromoethyl cinnamate (**1**)*.Yield: 69 %; FTIR (thin film on KBr, cm^{-1}): 3071 and 3029 (aromatic C–H stretching), 2952, 2887 and 730 (aliphatic C–H stretching), 1711 (C=O stretching), 1637 (vinylene C=C stretching), 1586, 1502 and 1453 (aromatic C=C in-plane stretching), 1301 and 1003 (aromatic ring modes), 1289 (CH_2–Br stretching), 1227 (asymmetrical C–O–C stretching), 1163 (symmetrical C–O–C stretching), 1097 (O–CH_2–C stretching), 986 (*trans*-vinylene =C–H deformation), 867, 779 and 704 (=C–H out-of-plane bending of the aromatic ring), 652 (C–Br stretching); ^{1}H-NMR (400 MHz, $CDCl_3$, δ / ppm): 7.73 (1H, *d*, *J* = 16.0 Hz, CH=C**H**–Ph), 7.55 (2H, *m*, H2 and H6), 7.38 (3H, *m*, H3, H4 and H5), 6.46 (1H, *d*, *J* = 16.0 Hz, –OC–C**H**=CH–), 4.51 (2H, *t*, *J* = 6.2 Hz, –O–CH_2–), 3.60 (2H, *t*, *J* = 6.2 Hz, Br–CH_2–); ^{13}C-NMR (100 MHz, $CDC1_3$, δ / ppm): 166.35 (C=O), 145.76 (Cβ), 134.17 (C1), 130.52 (C4), 128.96 (C3), 128.12 (C2), 117.24 (Cα), 63.84 (C–O), 28.78 (C–Br).

*2-(Cinnamoyloxy)ethyl-3,5-dihydroxybenzoate (**2**)*.Yield: 78 %; Anal. Calcd. for $C_{18}H_{16}O_6$: C, 65.85; H, 4.91; O, 29.24 %. Found: C, 65.96; H, 4.98; O, 29.06 %; FTIR (KBr, cm^{-1}): 3389 (–OH stretching), 3017–3098 (aromatic C–H stretching), 2849–2925 (aliphatic C–H stretching), 1727 (C=O stretching), 1635 (vinylene C=C stretching), 1581, 1497 and 1465 (aromatic C=C in-plane stretching), 1305 (aromatic ring mode), 1229 (asymmetrical C–O–C stretching), 1165 (symmetrical C–O–C stretching), 1097 (O–CH_2–C stretching), 1028 and 853 (aromatic trisubstituted), 860, 772 and 693 (aromatic =C–H out-of-plane bending), 980 cm^{-1} (*trans*-vinylene); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 8.89 (2H, *brs*, OH), 7.71 (1H, *d*, *J* = 15.9 Hz, CH=C**H**–Ph), 7.57 (2H, *m*, H2 and H6), 7.40 (3H, *m*, H3, H4 and H5), 7.06 (2H, *d*, *J* = 2.9 Hz, H2 and H6 of α-resorcylic

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acid), 6.68 (1H, *s*, *J* = 2.9 Hz, H4 of *α*-resorcylic acid), 6.45 (1H, *d*, *J* = 15.9 Hz, OC–C**H**=CH–), 4.52 (4H, *m*, 2×–CH_2–); ^{13}C-NMR (100 MHz, DMSO-d_6, *δ* / ppm): 166.75 (C=O, aliphatic), 165.90 (C=O, aromatic), 158.91 (C3, *α*-resorcylic acid), 145.21 (C*β*), 134.82 (C1), 131.08 (C1, *α*-resorcylic acid), 130.63 (C4), 129.04 (C3), 128.21 (C2), 116.94 (=C*α*), 109.06 (C2, *α*-resorcylic acid), 107.92 (C4, *α*-resorcylic acid), 63.86 (–C–O), 63.34 (–C–O).

PE4b. Yield 81 %; FTIR (KBr, cm^{-1}): 3350–3450 (stretching of unreacted OH groups), 3057 (aromatic C–H stretching), 2932 and 2858 (asymmetrical and symmetrical aliphatic CH_2 stretching), 1740 (C=O stretching), 1639 (vinylene C=C stretching), 1601, 1510, 1465 and 1408 (aromatic C=C stretching), 1290 (aromatic ring), 1208 (asymmetrical C–O–C stretching), 1161 (C–O–C symmetrical stretching), 1102 (O–CH_2–C stretching), 1025 and 851 (aromatic 1,3,5-trisubstituted), 978 (*trans*-vinylene C–H out-of-plane bending), 860, 772 and 693 (aromatic C–H out-of-plane bending), 730 (–CH_2– bending); ^{1}H-NMR (400 MHz, DMSO-d_6, *δ* / ppm): 8.21–8.23 (2H, *d*, aromatic), 7.72–7.76 (1H, *d*, *J* = 16.1 Hz, CH=C**H**–Ph), 7.47–7.61 (2H, *m*, Ar), 7.35–7.45 (6H, *m*, Ar), 7.16––7.19 (2H, *d*, Ar), 6.47–6.53 (1H, *d*, *J* = 16.1 Hz, OC–C**H**=CH–), 4.47–4.58 (4H, *m*, –CH_2–); ^{13}C-NMR (100 MHz, DMSO-d_6, *δ* / ppm): 166.58 (C=O, aliphatic), 165.37 (C=O, aromatic), 164.28 (C=O, aromatic), 161.79 (C4′), 152.14 (C3, *α*-resorcylic acid), 145.57 (C*β*), 134.69 (C1), 134.08 (C2′), 130.90 (C1, *α*-resorcylic acid), 130.44 (C4), 129.13 (C3), 128.26 (C2), 123.94 (C1′), 120.05 (C3′), 119.17 (C4, *α*-resorcylic acid), 118.26 (C2, *α*-resorcylic acid), 117.06 (=C*α*), 64.81 (–C–O), 63.27 (–C–O).