

Optical properties of donor–acceptor phenylene-ethynylene systems containing the 6-methylpyran-2-one group as an acceptor

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Spectroscopic data for **2**: ¹H NMR (CDCl₃, 200 MHz), δ 7.33 (m, 2H), 6.57 (m, 2H), 6.13 (s, 1H), 5.95 (s, 1H), 2.96 (s, 6H), 2.16 (s, 3H). ¹³C{¹H} NMR (CDCl₃, 100 MHz), δ 162.6, 161.4, 151.2, 139.8, 133.7, 112.5, 111.6, 107.4, 105.6, 101.8, 84.9, 40.0, 19.8. IR ν(C≡C) 2181, ν(C=O) 1704 cm⁻¹; MS-EI (*m/z*): 253 (40), 224 (40), 182 (100), 166 (55). Anal. calc. for C₁₆H₁₅NO₂: C 75.87, H 5.97, N 5.53; found C 75.55, H 6.01, N 5.24. M.p. 153–155 °C.

For **3**: ¹H NMR (CDCl₃, 200 MHz), δ 7.45 (s, 4H), 7.35 (m, 2H), 6.55 (s, 2H), 6.27 (s, 1H), 6.05 (s, 1H), 3.25 (m, 4H), 2.25 (s, 3H), 1.55 (m, 4H), 1.30 (m, 12H), 0.88 (m, 6H). ¹³C{¹H} NMR (CDCl₃, 100 MHz), δ 162.2, 162.0, 148.3, 138.8, 133.0, 132.0, 131.2, 126.3, 119.6, 114.3, 111.2, 108.0, 105.3, 98.7, 94.5, 86.9, 86.7, 51.0, 31.7, 27.2, 26.8, 22.7, 19.9, 14.0. IR ν(C≡C) 2194, ν(C=O) 1727 cm⁻¹; MS-EI (*m/z*): 493 (94), 422 (100), 352 (56), 338 (25), 176 (13), 162 (16). Anal. calc. for C₃₄H₃₉NO₂: C 82.72, H 7.96, N 2.84; found C 82.11, H 7.94, N 2.55.