

† RSC'S Electronic Supplementary Information:

4-*n*-Hexyloxyphenyl-4-benzyloxybenzoate, a (*n*=6)

A mixture of 4-*n*-hexyloxyphenol, **i** (*n*=6) (3.88g, 20.0mmol), 4-benzyloxybenzoic acid, **ii** (4.56g, 20.0mmol), cat. amount of 4 (N, N-dimethylamino) pyridine (DMAP) and dry chloroform (50ml) were stirred for ten min. To this N, N'-dicyclohexylcarbodiimide (DCC, 2.04g, 22.0mmol) was added and stirred overnight at room temperature. The precipitated N, N'-dicyclohexylurea was filtered off and washed with chloroform (50ml). The filtrate was washed successively with 5% acetic acid (2 × 30ml), 5% ice-cold sodium hydroxide solution (2 × 30ml) and water (3 × 50ml) and then dried over anhydrous sodium sulphate. Removal of solvent gave a product, which was chromatographed on silica gel using chloroform as an eluant. Removal of solvent from the eluate afforded a white product, which was recrystallized from a mixture of chloroform and acetonitrile. Yield, 7.0g (87%); m.p.127-128°C; ν_{\max} (nujol): 3064, 2926, 2855, 1726, 1724, 1685, 1605, 1510, 1280, 1078 cm^{-1} ; δ_{H} : 8.16-8.14 (d, 2H, $^3\text{J}_{8.76\text{Hz}}$, Ar-H), 7.46-7.35 (m, 5H, Ar-H), 7.11-7.09 (d, 2H, $^3\text{J}_{8.92\text{Hz}}$, Ar-H), 7.06-7.04 (d, 2H, $^3\text{J}_{8.76\text{Hz}}$, Ar-H), 6.93-6.91 (d, 2H, $^3\text{J}_{8.96\text{Hz}}$, Ar-H), 5.16 (s, 2H, -O-CH₂-Ar), 3.97-3.94 (t, 2H, $^3\text{J}_{6.56\text{Hz}}$, Ar-O-CH₂-), 1.82-1.75 (quin, 2H, $^3\text{J}_{7.0\text{Hz}}$, Ar-O-CH₂-CH₂-), 1.49-1.35 (m, 6H, 3 × -CH₂-), 0.94-0.91 (t, 3H, $^3\text{J}_{6.8\text{Hz}}$, -CH₃). Elemental analysis: C₂₆H₂₈O₄ requires C, 77.20; H, 6.98%; found C, 77.63; H, 6.83%.

4-*n*-Hexyloxyphenyl-4-hydroxybenzoate, b (*n*=6)

Compound **a** (*n*=6), (6.8g, 16.8mmol) was dissolved in 1, 4-dioxane (100 ml), and 5% Pd-C catalyst (1.2g) was added and stirred at 50°C in an hydrogen atmosphere until the required quantity of hydrogen was absorbed. The solution was filtered and removal of solvent gave a white product, which was recrystallized, from a mixture of 1, 4-dioxane and petroleum-ether (b.p.80-100°C). Yield, 4.7g (89%); m.p. 159.5-160.5°C; ν_{\max} (nujol): 3393, 2926, 2855, 1703, 1609, 1514 cm^{-1} ; δ_{H} (CD₃COCD₃): 9.26 (s, 1H, Ar-OH, exchangeable with D₂O), 8.05-8.03 (d, 2H, $^3\text{J}_{8.68\text{Hz}}$, Ar-H), 7.15-7.12 (d, 2H, $^3\text{J}_{9.04\text{Hz}}$, Ar-H), 7.00-6.96 (m, 4H, Ar-H), 4.03-4.0 (t, 2H, $^3\text{J}_{6.48\text{Hz}}$, Ar-O-CH₂-), 1.82-1.75 (quin, 2H, $^3\text{J}_{6.96\text{Hz}}$, Ar-O-CH₂-CH₂-), 1.50-1.35 (m, 6H, 3 × -CH₂-), 0.93-0.89 (t, 3H, $^3\text{J}_{7.0\text{Hz}}$, -CH₃). Elemental analysis: C₁₉H₂₂O₄ requires C, 72.59; H, 7.05%; found C, 72.19; H, 6.91%.

4-*n*-Hexyloxyphenyl-4-(3-benzyloxybenzoyloxy)benzoate, c (*n*=6)

This was synthesized following a procedure described for the preparation of compound **a** (*n*=6). Quantities: compound **b** (*n*=6), (4.6g, 14mmol), 3-benzyloxybenzoic acid, **iii** (3.34g, 14mmol), cat.amount of DMAP, DCC (3.17g, 15.4mmol), dry CHCl₃ (40ml). Yield, 6.0g (78%); m.p. 100-101°C; ν_{\max} (nujol): 2924, 2855, 1728, 1604, 1508, 1292, 1074 cm⁻¹; δ_{H} : 8.29-8.27 (d, 2H, ³J8.76Hz, Ar-H), 7.85-7.83 (m, 2H, Ar-H), 7.48-7.26 (m, 9H, Ar-H), 7.14-7.11 (d, 2H, ³J9.0Hz, Ar-H), 6.95-6.93 (d, 2H, ³J9.04Hz, Ar-H), 5.16 (s, 2H, -O-CH₂-Ar), 3.99-3.96 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 1.83-1.76 (quin, 2H, ³J7.04Hz, Ar-O-CH₂-CH₂-), 1.49-1.35 (m, 6H, 3 × -CH₂-), 0.94-0.90 (t, 3H, ³J6.8Hz, -CH₃). Elemental analysis: C₃₃H₃₂O₆ requires C, 75.55; H, 6.15%; found C, 75.12; H, 6.02%.

4-*n*-Hexyloxyphenyl-4-(3-hydroxybenzoyloxy)benzoate, 8.d (*n*=6)

This was synthesized following a procedure described for the preparation of compound **b** (*n*=6). Quantities: compound **c** (*n*=6), (5.7g, 10.9mmol), 5% Pd-C catalyst (1.0g), 1, 4-dioxane (75ml). Yield, 3.8g (81%); m.p. 175.5-176.0°C; ν_{\max} (nujol): 3445, 2924, 2855, 1728, 1720, 1607, 1506 cm⁻¹; δ_{H} (CD₃COCD₃): 9.0 (s, 1H, Ar-OH, exchangeable with D₂O), 8.29-8.27 (d, 2H, ³J8.72Hz, Ar-H), 7.71-7.66 (m, 2H, Ar-H), 7.53-7.51 (d, 2H, ³J8.72Hz, Ar-H), 7.46-7.42 (t, 1H, ³J7.92Hz, Ar-H), 7.23-7.21 (m, 3H, Ar-H), 7.02-7.00 (d, 2H, ³J9.0Hz, Ar-H), 4.04-4.02 (t, 2H, ³J6.48Hz, Ar-O-CH₂-), 1.83-1.76 (quin, 2H, ³J7.04Hz, Ar-O-CH₂-CH₂-), 1.50-1.35 (m, 6H, 3 × -CH₂-), 0.93-0.90 (t, 3H, ³J6.96Hz, -CH₃). Elemental analysis: C₂₆H₂₆O₆ requires C, 71.87; H, 6.03%; found C, 71.45; H, 5.98%.

4-*n*-Hexyloxyphenyl-4-[3-(4-benzyloxybenzoyloxy)benzoyloxy]benzoate, 8.e (*n*=6)

This was synthesized following a procedure described for the preparation of compound **a** (*n*=6). Quantities: compound **d** (*n*=6), (2.25g, 5.18mmol), 4-benzyloxybenzoic acid, **ii** (1.18g, 5.18mmol), cat.amount of DMAP, DCC (1.18g, 5.7mmol), dry CHCl₃ (35ml). Yield, 2.6g (78%); m.p. 128.0-128.5°C; ν_{\max} (nujol): 2924, 2855, 1746, 1720, 1605, 1508, 1250, 1074 cm⁻¹; δ_{H} : 8.29-8.27 (d, 2H, ³J8.6Hz, Ar-H), 8.19-8.17 (d, 2H, ³J8.76Hz, Ar-H), 8.14-8.12 (d, 1H, ³J7.64Hz, Ar-H), 8.06 (s,

1H, Ar-H), 7.62-7.58 (t, 1H, $^3J_{7.92\text{Hz}}$, Ar-H), 7.54-7.52 (m, 1H, Ar-H), 7.47-7.37 (m, 7H, Ar-H), 7.14-7.12 (d, 2H, $^3J_{8.92\text{Hz}}$, Ar-H), 7.10-7.08 (d, 2H, $^3J_{8.8\text{Hz}}$, Ar-H), 6.95-6.92 (d, 2H, $^3J_{8.96\text{Hz}}$, Ar-H), 5.18 (s, 2H, -O-CH₂-Ar), 3.99-3.96 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 1.83-1.76 (quin, 2H, $^3J_{6.96\text{Hz}}$, Ar-O-CH₂-CH₂-), 1.48-1.30 (m, 6H, 3 × -CH₂-), 0.94-0.91 (t, 3H, $^3J_{6.8\text{Hz}}$, -CH₃). Elemental analysis: C₄₀H₃₆O₈ requires C, 74.52; H, 5.63%; found C, 74.13; H, 5.56%.

4-*n*-Hexyloxyphenyl-4-[3-(4-hydroxybenzoyloxy)benzoyloxy]benzoate, f (n=6)

This was synthesized following a procedure described for the preparation of compound **b** (*n*=6). Quantities: compound **e** (*n*=6), (2.5g, 3.88mmol), 5% Pd-C catalyst (0.5g), 1, 4-dioxane (40ml). Yield, 1.7g (79%); m.p. 174.0-175.0°C; ν_{max} (nujol): 3356, 3277, 2924, 2855, 1732, 1696, 1510 cm⁻¹; δ_{H} (CD₃COCD₃): 9.39 (s, 1H, Ar-OH, exchangeable with D₂O), 8.30-8.28 (d, 2H, $^3J_{8.96\text{Hz}}$, Ar-H), 8.15-8.09 (m, 4H, Ar-H), 7.75-7.71 (t, 1H, $^3J_{8.04\text{Hz}}$, Ar-H), 7.68-7.66 (m, 1H, Ar-H), 7.59-7.56 (d, 2H, $^3J_{8.78\text{Hz}}$, Ar-H), 7.23-7.21 (d, 2H, $^3J_{9.04\text{Hz}}$, Ar-H), 7.04-7.02 (m, 4H, Ar-H), 4.04-4.01 (t, 2H, $^3J_{6.56\text{Hz}}$, Ar-O-CH₂-), 1.83-1.76 (quin, 2H, $^3J_{7.04\text{Hz}}$, Ar-O-CH₂-CH₂-), 1.50-1.32 (m, 6H, 3 × -CH₂-), 0.93-0.90 (t, 3H, $^3J_{6.88\text{Hz}}$, -CH₃). Elemental analysis: C₃₃H₃₀O₈ requires C, 71.47; H, 5.45%; found C, 71.20; H, 5.45%.

4-*n*-Hexyloxyphenyl-4-[3-{4-(4-*n*-hexyloxybenzoyloxy)benzoyloxy}benzoyloxy]benzoate, 1

This was synthesized following a procedure described for the preparation of compound **a** (*n*=6). Quantities: compound **f**, (*n*=6), (0.20g, 0.36mmol), 4-*n*-hexyloxybenzoic acid **v** (0.08g 0.36mmol), cat.amount of DMAP, DCC (0.082g, 0.4mmol), dry CHCl₃ (10ml). Yield, 75%; m.p. 142.0°C; ν_{max} : 3072, 2922, 2857, 1736, 1730, 1612, 1508, 1259, 1161, 1069 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.17-8.14 (m, 3H, Ar-H), 8.094-8.085 (t, 1H, $^4J_{1.92\text{Hz}}$, Ar-H), 7.64-7.60 (t, 1H, $^3J_{7.88\text{Hz}}$, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, $^3J_{8.96\text{Hz}}$, Ar-H), 7.0-6.98 (d, 2H, $^3J_{8.88\text{Hz}}$, Ar-H), 6.95-6.92 (d, 2H, $^3J_{9.0\text{Hz}}$, Ar-H), 4.08-4.05 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 1.87-1.76 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.51-1.26 (m, 12H, 6 × -CH₂-), 0.94-0.91 (m, 6H, 2 × -CH₃). Elemental analysis: C₄₆H₄₆O₁₀ requires C, 72.81; H, 6.11%; found C, 72.83; H, 6.18%.

**4-*n*-Octyloxyphenyl-4-[3-{4-(4-*n*-octyloxybenzoyloxy)benzoyloxy}benzoyloxy]
benzoate, 2**

Yield, 73%; m.p. 124.0°C; ν_{\max} : 3069, 2928, 2855, 1736, 1728, 1605, 1510, 1259, 1161, 1078 cm^{-1} ; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.17-8.14 (m, 3H, Ar-H), 8.096-8.086 (t, 1H, $^4\text{J}1.92\text{Hz}$, Ar-H), 7.64-7.60 (t, 1H, $^3\text{J}8.0\text{Hz}$, Ar-H), 7.57-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.13-7.11 (dd, 2H, $^3\text{J}8.96\text{Hz}$, $^4\text{J}2.2\text{Hz}$, Ar-H), 7.0-6.98 (dd, 2H, $^3\text{J}8.88\text{Hz}$, $^4\text{J}1.84\text{Hz}$, Ar-H), 6.95-6.92 (dd, 2H, $^3\text{J}9.04\text{Hz}$, $^4\text{J}2.2\text{Hz}$, Ar-H), 4.08-4.05 (t, 2H, $^3\text{J}6.56\text{Hz}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3\text{J}6.56\text{Hz}$, Ar-O-CH₂-), 1.87-1.76(m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.51-1.26 (m, 20H, 10 × -CH₂-), 0.91-0.88 (m, 6H, 2 × -CH₃). Elemental analysis: C₅₀H₅₄O₁₀ requires C, 73.69; H, 6.68%; found C, 73.37; H, 6.53%.

**4-*n*-Decyloxyphenyl-4-[3-{4-(4-*n*-decyloxybenzoyloxy)benzoyloxy}benzoyloxy]
benzoate, 3**

Yield, 71%; m.p. 102.0°C; ν_{\max} : 3069, 2928, 2855, 1736, 1728, 1605, 1510, 1259, 1161, 1078 cm^{-1} ; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.17-8.14 (m, 3H, Ar-H), 8.095-8.086 (t, 1H, $^4\text{J}1.96\text{Hz}$, Ar-H), 7.64-7.60 (t, 1H, $^3\text{J}8.04\text{Hz}$, Ar-H), 7.57-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.13-7.11 (dd, 2H, $^3\text{J}9.0\text{Hz}$, $^4\text{J}2.16\text{Hz}$, Ar-H), 7.0-6.98 (dd, 2H, $^3\text{J}8.92\text{Hz}$, $^4\text{J}1.88\text{Hz}$, Ar-H), 6.95-6.92 (dd, 2H, $^3\text{J}9.04\text{Hz}$, $^4\text{J}2.16\text{Hz}$, Ar-H), 4.08-4.05 (t, 2H, $^3\text{J}6.52\text{Hz}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3\text{J}6.56\text{Hz}$, Ar-O-CH₂-), 1.87-1.76(m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.51-1.26 (m, 28H, 14 × -CH₂-), 0.91-0.87 (m, 6H, 2 × -CH₃). Elemental analysis: C₅₄H₆₂O₁₀ requires C, 74.46; H, 7.17%; found C, 74.79; H, 7.20%.

**4-*n*-Dodecyloxyphenyl-4-[3-{4-(4-*n*-dodecyloxybenzoyloxy)benzoyloxy}
benzoyloxy]benzoate, 4**

Yield, 75%; m.p. 107.0°C; ν_{\max} : 3069, 2920, 2851, 1736, 1728, 1605, 1510, 1259, 1161, 1078 cm^{-1} ; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.17-8.15 (m, 3H, Ar-H), 8.095-8.086 (t, 1H, $^4\text{J}1.92\text{Hz}$, Ar-H), 7.64-7.60 (t, 1H, $^3\text{J}8.0\text{Hz}$, Ar-H), 7.57-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.14-7.12 (dd, 2H, $^3\text{J}8.96\text{Hz}$, $^4\text{J}2.12\text{Hz}$, Ar-H), 7.0-6.98 (dd, 2H, $^3\text{J}8.84\text{Hz}$, $^4\text{J}1.88\text{Hz}$, Ar-H), 6.95-6.92 (dd, 2H, $^3\text{J}8.96\text{Hz}$, $^4\text{J}2.08\text{Hz}$, Ar-H), 4.08-4.05 (t, 2H, $^3\text{J}6.52\text{Hz}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3\text{J}6.52\text{Hz}$, Ar-O-CH₂-), 1.87-1.76(m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.52-1.28 (m, 36H, 18 × -CH₂-), 0.91-0.87

(m, 6H, 2 × -CH₃). Elemental analysis: C₅₈H₇₀O₁₀ requires C, 75.13; H, 7.61%; found C, 75.29; H, 7.35%.

4-*n*-Tetradecyloxyphenyl-4-[3-{4-(4-*n*-tetradecyloxybenzoyloxy)benzoyloxy} benzoyloxy] benzoate, 5

Yield, 71%; m.p. 111.0°C; ν_{\max} : 3082, 2916, 2849, 1748, 1740, 1605, 1512, 1259, 1161, 1076 cm⁻¹; δ_{H} : 8.32-8.27 (m, 4H, Ar-H), 8.17-8.14 (m, 3H, Ar-H), 8.092-8.083 (t, 1H, ⁴J2.0Hz, Ar-H), 7.64-7.60 (t, 1H, ³J 8.0Hz, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.13-7.11 (dd, 2H, ³J9.04Hz, ⁴J2.2Hz, Ar-H), 7.0-6.98 (dd, 2H, ³J8.96Hz, ⁴J1.96Hz, Ar-H), 6.95-6.92 (dd, 2H, ³J9.08Hz, ⁴J2.24Hz, Ar-H), 4.08-4.05 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 1.86-1.75(m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.49-1.26 (m, 44H, 22 × -CH₂-), 0.90-0.87 (m, 6H, 2 × -CH₃). Elemental analysis: C₆₂H₇₈O₁₀ requires C, 75.73; H, 8.0%; found C, 75.30; H, 7.93%.

4-*n*-Hexadecyloxyphenyl-4-[3-{4-(4-*n*-hexadecyloxybenzoyloxy)benzoyloxy} benzoyloxy]benzoate, 6

Yield, 76 %; m.p. 114.0°C; ν_{\max} : 3082, 2916, 2849, 1747, 1740, 1605, 1512, 1259, 1163, 1074 cm⁻¹; δ_{H} : 8.32-8.27 (m, 4H, Ar-H), 8.17-8.14 (m, 3H, Ar-H), 8.092-8.083 (t, 1H, ⁴J1.88Hz, Ar-H), 7.65-7.61 (t, 1H, ³J 8.0Hz, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.13-7.11 (dd, 2H, ³J9.04Hz, ⁴J2.2Hz, Ar-H), 7.0-6.98 (dd, 2H, ³J8.96Hz, ⁴J1.92Hz, Ar-H), 6.94-6.92 (dd, 2H, ³J9.08Hz, ⁴J2.2Hz, Ar-H), 4.08-4.05 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 1.86-1.75(m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.49-1.26 (m, 52H, 26 × -CH₂-), 0.89-0.85 (m, 6H, 2 × -CH₃). Elemental analysis: C₆₆H₈₆O₁₀ requires C, 76.27; H, 8.34%; found C, 76.11; H, 8.38%.

4-*n*-Octadecyloxyphenyl-4-[3-{4-(4-*n*-octadecyloxybenzoyloxy) benzoyloxy} benzoyloxy] benzoate, 7

Yield, 74%; m.p. 115.5°C; ν_{\max} : 3082, 2916, 2849, 1747, 1740, 1605, 1510, 1258, 1163, 1076 cm⁻¹; δ_{H} : 8.32-8.27 (m, 4H, Ar-H), 8.17-8.14 (m, 3H, Ar-H), 8.092-8.083 (t, 1H, ⁴J1.88Hz, Ar-H), 7.65-7.61 (t, 1H, ³J 8.0Hz, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.41-7.37 (m, 4H, Ar-H), 7.13-7.11 (dd, 2H, ³J8.96Hz, ⁴J2.0Hz, Ar-H), 7.0-

6.98 (dd, 2H, $^3J_{8.8\text{Hz}}$, $^4J_{1.92\text{Hz}}$, Ar-H), 6.94-6.92 (dd, 2H, $^3J_{8.96\text{Hz}}$, $^4J_{2.12\text{Hz}}$, Ar-H), 4.08-4.05 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 1.86-1.75(m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.49-1.26 (m, 60H, 30 × -CH₂-), 0.89-0.85 (m, 6H, 2 × -CH₃). Elemental analysis: C₇₀H₉₄O₁₀ requires C, 76.75; H, 8.65%; found C, 76.56; H, 8.68%.

4-*n*-Hexyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-hexyloxybenzoyloxy)benzoyloxy}benzoyloxy] benzoate, 8

Yield, 73%; m.p. 131.0°C; ν_{max} : 3080, 2934, 2860, 1738, 1622, 1508, 1252, 1163, 1069 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, $^3J_{8.0\text{Hz}}$, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, $^3J_{8.96\text{Hz}}$, Ar-H), 6.95-6.92 (d, 2H, $^3J_{9.04\text{Hz}}$, Ar-H), 6.81-6.78 (dd, 1H, $^3J_{8.84\text{Hz}}$, $^4J_{2.24\text{Hz}}$, Ar-H), 6.73-6.69 (dd, 1H, $^3J_{12.76\text{Hz}}$, $^4J_{2.28\text{Hz}}$, Ar-H), 4.06-4.02 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3J_{6.56\text{Hz}}$, Ar-O-CH₂-), 1.86-1.76 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.52-1.26 (m, 12H, 6 × -CH₂-), 0.94-0.90 (m, 6H, 2 × -CH₃).

4-*n*-Octyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-octyloxybenzoyloxy)benzoyloxy}benzoyloxy] benzoate, 9

Yield, 70%; m.p. 123.0°C; ν_{max} : 3080, 2922, 2855, 1740, 1730, 1622, 1508, 1280, 1165, 1074 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, $^3J_{8.0\text{Hz}}$, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, $^3J_{8.96\text{Hz}}$, Ar-H), 6.94-6.92 (d, 2H, $^3J_{9.0\text{Hz}}$, Ar-H), 6.81-6.78 (dd, 1H, $^3J_{8.88\text{Hz}}$, $^4J_{2.16\text{Hz}}$, Ar-H), 6.73-6.69 (dd, 1H, $^3J_{12.72\text{Hz}}$, $^4J_{2.2\text{Hz}}$, Ar-H), 4.06-4.02 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 3.98-3.95 (t, 2H, $^3J_{6.52\text{Hz}}$, Ar-O-CH₂-), 1.86-1.76 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.47-1.26 (m, 20H, 10 × -CH₂-), 0.90-0.88 (m, 6H, 2 × -CH₃).

4-*n*-Decyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-decyloxybenzoyloxy)benzoyloxy}benzoyloxy] benzoate, 10

Yield, 71%; m.p. 116.0°C; ν_{max} : 3074, 2920, 2853, 1740, 1730, 1622, 1508, 1280, 1165, 1074 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, $^3J_{8.0\text{Hz}}$, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, $^3J_{9.0\text{Hz}}$, Ar-H), 6.94-6.92 (d, 2H, $^3J_{9.04\text{Hz}}$, Ar-H), 6.81-6.78 (dd, 1H,

³J8.88Hz, ⁴J2.24Hz, Ar-H), 6.73-6.69 (dd, 1H, ³J12.72Hz, ⁴J2.28Hz, Ar-H), 4.06-4.02 (t, 2H, ³J6.52Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 1.86-1.75 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.47-1.26 (m, 28H, 14 × -CH₂-), 0.90-0.87 (m, 6H, 2 × -CH₃).

4-*n*-Dodecyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-dodecyloxybenzoyloxy)benzoyloxy}benzoyloxy] benzoate, 11

Yield, 69%; m.p. 112.5°C; ν_{\max} : 3072, 2916, 2853, 1740, 1732, 1624, 1510, 1281, 1165, 1074 cm⁻¹; δ_{H} : 8.31-8.28 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, ³J 8.0Hz, Ar-H), 7.57-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.14-7.11 (d, 2H, ³J8.96Hz, Ar-H), 6.94-6.92 (d, 2H, ³J8.96Hz, Ar-H), 6.81-6.78 (dd, 1H, ³J8.88Hz, ⁴J2.08Hz, Ar-H), 6.73-6.69 (dd, 1H, ³J12.68Hz, ⁴J2.12Hz, Ar-H), 4.06-4.02 (t, 2H, ³J6.52Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.52Hz, Ar-O-CH₂-), 1.86-1.75 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.47-1.27 (m, 36H, 18 × -CH₂-), 0.90-0.87 (m, 6H, 2 × -CH₃).

4-*n*-Tetradecyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-tetradecyloxybenzoyloxy)benzoyloxy}benzoyloxy] benzoate, 12

Yield, 71%; m.p. 112.0°C; ν_{\max} : 3074, 2916, 2851, 1740, 1730, 1719, 1624, 1508, 1280, 1165, 1074 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, ³J7.96Hz, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, ³J8.84Hz, Ar-H), 6.94-6.92 (d, 2H, ³J8.88Hz, Ar-H), 6.81-6.78 (dd, 1H, ³J8.88Hz, ⁴J2.24Hz, Ar-H), 6.73-6.69 (dd, 1H, ³J12.68Hz, ⁴J2.2Hz, Ar-H), 4.06-4.02 (t, 2H, ³J6.48Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.48Hz, Ar-O-CH₂-), 1.84-1.75 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.46-1.26 (m, 44H, 22 × -CH₂-), 0.90-0.87 (m, 6H, 2 × -CH₃).

4-*n*-Hexadecyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-hexadecyloxybenzoyloxy)benzoyloxy}benzoyloxy]benzoate, 13

Yield, 68%; m.p. 109.0°C; ν_{\max} : 3072, 2916, 2851, 1740, 1734, 1730, 1624, 1510, 1281, 1167, 1074 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, ³J8.0Hz, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, ³J8.96Hz, Ar-H), 6.94-6.92 (d, 2H, ³J9.0Hz, Ar-H), 6.81-6.78 (dd,

1H, ³J8.96Hz, ⁴J2.24Hz, Ar-H), 6.73-6.69 (dd, 1H, ³J12.72Hz, ⁴J2.24Hz, Ar-H), 4.06-4.02 (t, 2H, ³J6.48Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.52Hz, Ar-O-CH₂-), 1.84-1.75 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.46-1.26 (m, 52H, 26 × -CH₂-), 0.90-0.87 (m, 6H, 2 × -CH₃).

4-*n*-Octadecyloxyphenyl-4-[3-{4-(2-fluoro-4-*n*-octadecyloxybenzoyloxy) benzoyloxy} benzoyloxy]benzoate, 14

Yield, 70%; m.p. 108.0°C; ν_{\max} : 3072, 2916, 2851, 1740, 1738, 1730, 1624, 1510, 1277, 1167, 1074 cm⁻¹; δ_{H} : 8.31-8.27 (m, 4H, Ar-H), 8.16-8.04 (m, 3H, Ar-H), 7.64-7.60 (t, 1H, ³J8.0Hz, Ar-H), 7.56-7.54 (m, 1H, Ar-H), 7.42-7.37 (m, 4H, Ar-H), 7.13-7.11 (d, 2H, ³J9.0Hz, Ar-H), 6.94-6.92 (d, 2H, ³J9.04Hz, Ar-H), 6.81-6.78 (dd, 1H, ³J8.96Hz, ⁴J2.24Hz, Ar-H), 6.73-6.69 (dd, 1H, ³J12.76Hz, ⁴J2.24Hz, Ar-H), 4.06-4.02 (t, 2H, ³J6.48Hz, Ar-O-CH₂-), 3.98-3.95 (t, 2H, ³J6.56Hz, Ar-O-CH₂-), 1.84-1.75 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.46-1.26 (m, 60H, 30 × -CH₂-), 0.90-0.86 (m, 6H, 2 × -CH₃).

4-*n*-Hexadecyloxyphenyl-4-[3-{4-(4-*n*-dodecyloxybiphenyl-4-carbonyloxy) benzoyloxy} benzoyloxy]benzoate, 15

Yield, 70%; m.p. 141.0°C; ν_{\max} : 3082, 2916, 2849, 1747, 1740, 1605, 1510, 1282, 1161, 1076 cm⁻¹; δ_{H} : 8.34-8.32 (dd, 2H, ³J8.8Hz, ⁴J2.0Hz, Ar-H), 8.30-8.28 (dd, 2H, ³J8.84Hz, ⁴J2.0Hz, Ar-H), 8.27-8.24 (d, 2H, ³J8.56Hz, Ar-H), 8.17-8.09 (m, 2H, Ar-H), 7.73-7.71 (d, 2H, ³J 8.56Hz, Ar-H), 7.64-7.55 (m, 4H, Ar-H), 7.44-7.41 (dd, 2H, ³J8.8Hz, ⁴J2.0Hz, Ar-H), 7.39-7.37 (dd, 2H, ³J8.8Hz, ⁴J2.0Hz, Ar-H), 7.13-7.11 (dd, 2H, ³J9.04Hz, ⁴J2.24Hz, Ar-H), 7.02-7.0 (dd, 2H, ³J8.84Hz, ⁴J1.92Hz, Ar-H), 6.95-6.92 (dd, 2H, ³J9.08Hz, ⁴J2.24Hz, Ar-H), 4.04-4.0(t, 2H, ³J6.56Hz, Ar-O-CH₂-), 3.98-3.94 (t, 2H, ³J6.52Hz, Ar-O-CH₂-), 1.85-1.75 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.50-1.26 (m, 44H, 22 × -CH₂-), 0.89-0.86 (m, 6H, 2 × -CH₃). Elemental analysis: C₆₈H₈₂O₁₀ requires C, 77.10%; H, 7.80%; found C, 76.67%; H, 7.83%.

4-*n*-Octdecyloxyphenyl-4-[3-{4-(4-*n*-dodecyloxybiphenyl-4-carbonyloxy) benzoyloxy} benzoyloxy] benzoate, 16

Yield, 68%; m.p. 140°C; ν_{\max} : 3082, 2918, 2849, 1748, 1741, 1603, 1512, 1285, 1161, 1076 cm⁻¹; δ_{H} : 8.34-8.32 (dd, 2H, ³J8.76Hz, ⁴J2.0Hz, Ar-H), 8.30-8.28

(dd, 2H, $^3J_{8.84\text{Hz}}$, $^4J_{2.0\text{Hz}}$, Ar-H), 8.27-8.24 (d, 2H, $^3J_{8.52\text{Hz}}$, Ar-H), 8.17-8.09 (m, 2H, Ar-H), 7.73-7.71 (d, 2H, $^3J_{8.56\text{Hz}}$, Ar-H), 7.63-7.54 (m, 4H, Ar-H), 7.44-7.41 (dd, 2H, $^3J_{8.76\text{Hz}}$, $^4J_{2.0\text{Hz}}$, Ar-H), 7.39-7.37 (dd, 2H, $^3J_{8.76\text{Hz}}$, $^4J_{2.0\text{Hz}}$, Ar-H), 7.13-7.11 (dd, 2H, $^3J_{9.04\text{Hz}}$, $^4J_{2.24\text{Hz}}$, Ar-H), 7.02-7.0 (dd, 2H, $^3J_{8.84\text{Hz}}$, $^4J_{1.92\text{Hz}}$, Ar-H), 6.95-6.92 (dd, 2H, $^3J_{9.04\text{Hz}}$, $^4J_{2.24\text{Hz}}$, Ar-H), 4.04-4.0 (t, 2H, $^3J_{6.6\text{Hz}}$, Ar-O-CH₂-), 3.98-3.94 (t, 2H, $^3J_{6.56\text{Hz}}$, Ar-O-CH₂-), 1.84-1.72 (m, 4H, 2 × Ar-O-CH₂-CH₂-), 1.50-1.26 (m, 48H, 24 × -CH₂-), 0.89-0.86 (m, 6H, 2 × -CH₃). Elemental analysis: C₇₀H₈₆O₁₀ requires C, 77.32; H, 7.97%; found C, 77.44; H, 8.09%.