

Table 2. Analytical data of the compounds 3–5

Cp	Name	Structure	GP	Analytical data
3	(3 <i>E</i> ,4 <i>aS</i> ,5 <i>S</i>)-3-butylidene-4,4 <i>a</i> ,5,6,7,8-hexahydro-5-hydroxy-1,4 <i>a</i> -dimethylnaphthalene-2(3 <i>H</i>)-one		1 2 4	<p>Yield: 68 %</p> <p>$[\alpha]_D^{20} = +54^\circ$ (c = 1.07, CHCl₃)</p> <p>¹H-NMR (400 MHz, CDCl₃): δ 0.87 (t, <i>J</i> = 6.9 Hz, 3H), 1.14 (s, 3H), 1.11-2.19 (m, 12H), 1.77 (s, 3H), 3.24-3.29 (m, 1H), 6.59 (t, <i>J</i> = 6.1 Hz, 1H).</p> <p>¹³C-NMR (100.6 MHz, CDCl₃): δ 12.3, 14.1, 20.9, 23.0, 23.8, 27.0, 28.3, 29.4, 31.9, 41.4, 85.4, 129.1, 137.8, 152.7, 166.5, 187.4.</p> <p>HRMS (FAB): calc. for C₁₆H₂₄O₂: 248.1776, found: 248.1789.</p>
4	(3 <i>E</i> ,4 <i>aS</i> ,5 <i>S</i>)-3-(4-fluoro-benzylidene)-4,4 <i>a</i> ,5,6,7,8-hexahydro-5-hydroxy-1,4 <i>a</i> -dimethylnaphthalene-2(3 <i>H</i>)-one		1 2 4	<p>Yield: 73 %</p> <p>$[\alpha]_D^{20} = +77^\circ$ (c = 1.04, CHCl₃)</p> <p>¹H-NMR (400 MHz, CDCl₃): δ 1.24 (s, 3H), 1.23-2.12 (m, 8H), 1.96 (s, 3H), 3.23 (t, <i>J</i> = 7.3 Hz, 1H), 6.91 (d, <i>J</i> = 8.4 Hz, 2H), 7.28 (d, <i>J</i> = 8.5 Hz, 2H), 7.54 (s, 1H).</p> <p>¹³C-NMR (100.6 MHz, CDCl₃): δ 11.4, 20.7, 23.0, 26.7, 28.2, 31.6, 41.1, 85.3, 114.8 (2C), 128.1 (2C), 131.0, 131.8, 139.3, 147.4, 151.5, 164.2, 189.6.</p> <p>HRMS (FAB): calc. for C₁₉H₂₁FO₂: 300.1526, found: 300.1546 [M]⁺.</p>
5	(1 <i>S</i> ,7 <i>E</i> ,8 <i>aS</i>)-7-benzylidene-1,2,3,4,6,7,8,8 <i>a</i> -octahydro-5,8 <i>a</i> -dimethyl-6-methylene-naphthalene-1-ol		1 2 3 4	<p>Yield: 39 %</p> <p>$[\alpha]_D^{20} = +29^\circ$ (c = 1.01, CHCl₃)</p> <p>¹H-NMR (400 MHz, CDCl₃): δ 1.20 (s, 3H), 1.16-2.16 (m, 8H), 1.68 (s, 3H), 2.78 (brs, 1H), 3.28-3.35 (m, 1H), 5.09 (s, 1H), 5.34 (s, 1H), 6.31 (s, 1H), 7.06-7.38 (m, 5H).</p> <p>HRMS (FAB): calc. for C₂₀H₂₄O: 280.1827, found: 281.1891 [M+H]⁺.</p>