

## SUPPORTING INFORMATION

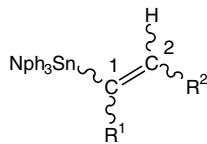
Full <sup>1</sup> H NMR spectra (Table 2)	Page S2
Full <sup>13</sup> C NMR spectra (Table 3)	Page S3
Mass and FT IR spectra (C=O) of compounds <b>10</b> , <b>13-17</b> , <b>21</b> , <b>23</b> , <b>24</b> , <b>26</b> , <b>27</b> , and <b>29</b>	Pages S4-S6

**Table 2.**  $^1\text{H}$  NMR characteristics of trineophylstannylvinyl ketones **10-17, 21-24, 26, 27** and **29**

Nº	Chemical shifts ( $\delta$ , in ppm) <sup>a</sup>
<b>10</b>	1.13 (s, 6H, $^2J(\text{Sn},\text{H})$ 54.5); 1.22 (s, 18H); 2.14 (s, 3H); 6.14 (d, 1H, $^3J(\text{H},\text{H})$ 12.8; $^2J(\text{Sn},\text{H})$ 65.6); 6.71 (d, 1H, $^3J(\text{H},\text{H})$ 12.8; $^3J(\text{Sn},\text{H})$ 119.9); 7.12-7.20 (m, 15H).
<b>11</b>	1.03 (s, 6H, $^2J(\text{Sn},\text{H})$ 49.7); 1.10 (s, 18H); 2.01 (s, 3H); 5.64 (d, 1H, $^2J(\text{H},\text{H})$ 1.2; $^3J(\text{Sn},\text{H})$ 59.6); 6.19 (d, 1H, $^2J(\text{H},\text{H})$ 1.2; $^3J(\text{Sn},\text{H})$ 124.0); 6.90-7.48 (m, 15H).
<b>12</b>	1.00 (s, 6H, $^2J(\text{Sn},\text{H})$ 48.0); 1.12 (s, 18H); 1.83 (s, 3H); 5.91 (d, 1H, $^3J(\text{H},\text{H})$ 19.1; $^3J(\text{Sn},\text{H})$ 82.6); 6.25 (d, 1H, $^3J(\text{H},\text{H})$ 19.1; $^2J(\text{Sn},\text{H})$ 42.8); 6.90-7.48 (m, 15H).
<b>13</b>	1.17 (s, 18H); 1.29 (s, 6H, $^2J(\text{Sn},\text{H})$ 50.3); 2.00 (s, 3H); 2.01 (d, 3H, $^4J(\text{H},\text{H})$ 1.9, $^3J(\text{Sn},\text{H})$ 42.8); 6.58 (c, 1H, $^4J(\text{H},\text{H})$ 1.9; $^3J(\text{Sn},\text{H})$ 112.3); 7.05-7.25 (m, 15H).
<b>14</b>	1.20 (s, 18H); 1.27 (s, 6H, $^2J(\text{Sn},\text{H})$ 51.9); 1.69 (d, 3H, $^3J(\text{H},\text{H})$ 7.2); 2.14 (s, 3H); 6.88 (c, 1H, $^3J(\text{H},\text{H})$ 7.2; $^2J(\text{Sn},\text{H})$ 112.2); 7.12-7.26 (m, 15H).
<b>15</b>	1.00 (s, 6H, $^2J(\text{Sn},\text{H})$ 50.0); 1.62 (d, 3H, $^3J(\text{H},\text{H})$ 7.2); 1.69 (s, 18H); 2.02 (s, 3H); 5.27 (c 1H, $^3J(\text{H},\text{H})$ 7.2; $^3J(\text{Sn},\text{H})$ 66.5); 7.10-7.20 (m, 15H).
<b>16</b>	0.98 (t, 3H, $^3J(\text{H},\text{H})$ 7.1) 1.18 (s, 18H); 1.21 (s, 6H, $^2J(\text{Sn},\text{H})$ nd); 1.42 (m, 4H); 2.15 (m, 2H); 2.18 (s, 3H), 6.87 (t, 1H, $^3J(\text{H},\text{H})$ 7.9; $^3J(\text{Sn},\text{H})$ 118.6); 7.08-7.35 (m, 15H).
<b>17</b>	0.93 (t, 3H, $^3J(\text{H},\text{H})$ 7.0); 1.02 (s, 6H, $^2J(\text{Sn},\text{H})$ 50.0); 1.19 (s, 18H); 1.35 (m, 4H); 2.00 (m, 2H); 2.12(s, 3H), 5.33 (t, 1H, $^3J(\text{H},\text{H})$ 7.2; $^3J(\text{Sn},\text{H})$ 65.2); 7.11-7.35 (m, 15H).
<b>21</b>	1.09 (s, 6H, $^2J(\text{Sn},\text{H})$ 50.5); 1.20 (s, 18H); 1.95 (s, 3H); 6.30 (s, 1H, $^3J(\text{Sn},\text{H})$ 64.1); 6.85-7.57 (m, 20H).
<b>22</b>	1.16 (s, 6H, $^2J(\text{Sn},\text{H})$ 49.2); 1.28(s, 18H); 1.83 (s, 3H); 6.28 (s, 1H, $^3J(\text{Sn},\text{H})$ 64.4); 7.00-7.74 (m, 20H).
<b>23</b>	1.08 (s, 6H, $^2J(\text{Sn},\text{H})$ 51.1); 1.16 (s, 18H); 5.69 (d, 1H, $^2J(\text{H},\text{H})$ 2.0; $^3J(\text{Sn},\text{H})$ 61.5); 5.94 (d, 1H, $^2J(\text{H},\text{H})$ 2.0; $^3J(\text{Sn},\text{H})$ 117.5); 7.00-8.00 (m, 20H).
<b>24</b>	1.26 (s, 6H, $^2J(\text{Sn},\text{H})$ 52.4); 1.32 (s, 18H); 6.52 (d, 1H, $^3J(\text{H},\text{H})$ 12.7; $^3J(\text{Sn},\text{H})$ 69.0); 7.15-7.55 (m, 20H); 7.58 (d, 1H, $^3J(\text{H},\text{H})$ 12.7).
<b>26</b>	0.76 (s, 6H, $^2J(\text{Sn},\text{H})$ 52.1); 0.90 (s, 18H); 1.32 (d, 3H, $^3J(\text{H},\text{H})$ 6.8); 5.38 (c, 1H, $^3J(\text{H},\text{H})$ 6.8, $^3J(\text{Sn},\text{H})$ 63.9); 6.71-7.81 (m, 20H).
<b>27</b>	0.61 (t, 3H, $^3J(\text{H},\text{H})$ 7.4); 0.76 (s, 6H, $^2J(\text{Sn},\text{H})$ 50.8); 0.91 (s, 18H); 1.02 (m, 4H); 1.67 (m, 2H); 5.42 (t, 1H, $^3J(\text{H},\text{H})$ 7.0; $^3J(\text{Sn},\text{H})$ 65.6); 6.79-7.84 (m, 20H).
<b>29</b>	0.95 (s, 6H, $^2J(\text{Sn},\text{H})$ 47.7); 1.05 (s, 18H); 6.43 (s, 1H, $^3J(\text{Sn},\text{H})$ 62.8); 6.89-7.82 (m, 25H).

<sup>a</sup> In  $\text{CDCl}_3$ ; multiplicity and  $J$  values in Hz (in parentheses).

**Table 3.**  $^{13}\text{C}$  NMR characteristics of trineophylstannylvinyl ketones **10-17, 21-24, 26, 27 and 29**<sup>a</sup>



N°	R <sup>1</sup>	R <sup>2</sup>	Config.	C(1) [ <sup>1</sup> J( <sup>119</sup> Sn, <sup>13</sup> C)]	C(2) [ <sup>2</sup> J( <sup>119</sup> Sn, <sup>13</sup> C)]	R <sup>1</sup> [ <sup>2</sup> J( <sup>119</sup> Sn, <sup>13</sup> C)]	R <sup>2</sup> [ <sup>3</sup> J( <sup>119</sup> Sn, <sup>13</sup> C)] <sup>b</sup>
<b>10</b>	H	COMe	Z ( )	157.76 (340.5)	139.54 (26.6)	--	197.40 (nd) <sup>c</sup>
<b>11</b>	COMe	H		158.73 (329.5)	136.73 (18.2)	203.67 (21.3)	-- <sup>d</sup>
<b>12</b>	H	COMe	E ( )	153.01 (316.1)	143.90 (nd)	--	197.25 (24.2) <sup>e</sup>
<b>13</b>	Me	COMe	Z ( )	151.61 (nd)	135.82 (10.7)	17.94 (47.6)	209.45 (29.1) <sup>f</sup>
<b>14</b>	COMe	Me	Z ( )	151.75 (nd)	148.90 (38.5)	204.38 (21.8)	20.39 (28.2) <sup>g</sup>
<b>15</b>	COMe	Me	E ( )	173.25 (nd)	136.98 (15.0)	196.41 (19.0)	27.50 (24.3) <sup>h</sup>
<b>16</b>	COMe	Bu	Z ( )	150.44 (334.9)	141.21 (33.8)	209.17 (27.9)	32.12 (46.8) <sup>i</sup>
<b>17</b>	COMe	Bu	E ( )	154.40 (344.0)	150.63 (nd)	204.63 (25.7)	33.77 (nd) <sup>j</sup>
<b>21</b>	COMe	Ph	E ( )	154.24 (317.4)	138.81 (28.0)	209.95 (17.8)	137.57 (21.8) <sup>k</sup>
<b>22</b>	Ph	COMe	E ( )	137.48 (365.0)	139.60 (27.6)	144.41 (20.3)	198.87 (nd) <sup>l</sup>
<b>23</b>	H	COPh	Z ( )	160.44 (339.3)	136.21 (11.5)	--	189.19 (23.9) <sup>m</sup>
<b>24</b>	COPh	H		157.57 (344.7)	133.78 (32.,8)	201.16 (29.0)	-- <sup>n</sup>
<b>26</b>	COPh	Me	E ( )	150.93 (nd)	137.94 (10.1)	202.25 (28.1)	18.80 (45.9) <sup>o</sup>
<b>27</b>	COPh	Bu	E ( )	147.94 (nd)	132.57 (25.9)	201.43 (27.6)	33.42 (nd) <sup>p</sup>
<b>29</b>	COPh	Ph	E ( )	151.81 (365.9)	129.05 (34.0)	201.50 (22.4)	136.10 (nd) <sup>q</sup>

<sup>a</sup> In CDCl<sub>3</sub>; chemical shifts,  $\delta$ , in ppm with respect to TMS; <sup>n</sup>J(Sn,C) coupling constants, in Hz (in parentheses); nd = not determined. <sup>b</sup> Other signals: <sup>c</sup> 25.44; 31.55 (341.3); 32.93 (37.1); 37.88 (nd); 125.15; 125.36; 127.81; 151.25 (18.2). <sup>d</sup> 30.42; 32.54 (361.7); 32.87 (35.2); 38.06 (19.7); 125.20; 125.38; 127.83; 151.66 (27.3). <sup>e</sup> 24.89; 31.38 (336.0); 33.05 (39.0); 38.01 (21.4); 125.22; 125.54; 127.78; 150.62 (18.1). <sup>f</sup> 30.16; 32.49 (30.2); 33.16 (345.32); 38.14 (19.2); 125.12; 125.39; 127.74; 152.21 (29.5). <sup>g</sup> 26.72 ; 32.60 (38.3); 32.78 (335.5); 38.10 (19.4); 125.20; 125.45; 127.79; 151.59 (25.4). <sup>h</sup> 31.17 (334.1); 31.53; 33.05 (40.7); 37.74 (18.8); 125.31; 125.37; 127.94; 151.84 (19.9). <sup>i</sup> 13.79; 22.21; 31.12(332.3); 31.20; 33.05 (38.3); 37.76 (19.6); 125.29; 125.37; 127.95; 128.31; 150.91 (27.9). <sup>j</sup> 14.01; 22.51; 31.19; 32.59 (34.3); 32.84 (332.5); 38.14 (19.6); 125.35; 125.44; 128.01; 151.71(27.9). <sup>k</sup> 30.65; 32.60 (326.8); 33.09 (39.9); 37.79 (19.1); 125.44; 125.57; 127.98; 128.14; 128.36; 150.94 (18.8). <sup>l</sup> 30.22; 30.82 (326.5); 33.09 (38.8); 37.71; 125.27; 125.47; 128.01; 128.19; 138.75; 150.68 (17.1). <sup>m</sup> 32.76 (350.8), 32.92 (39.0); 38.11 (19.7); 125.18; 127-83; 128.39; 132.54; 137.97; 151.73 (24.4). <sup>n</sup> 31.40 (339.5); 33.07 (40.2); 37.83 (19.0); 125.35; 127.95; 128.08; 129.76; 132.25, 137.00; 151.08 (19.6). <sup>o</sup> 31.09 (331.4); 33.07 (36.4); 37.73 (21.9), 125.32; 127.94; 128.43; 129.06; 137.39; 150.94 (19.3). <sup>p</sup> 13.71; 22.10; 31.08 (332.8); 33.07 (34.0); 37.73 (20.7); 125.30; 127.95; 128.34; 129.08; 137.48; 143.03; 151.01 (20.3). <sup>q</sup> 31.47 (331.4); 33.06 (41.1); 37.70 (20.7); 125.05; 125.40; 127.99; 128.24; 128.27; 132.55; 137.18; 136.10; 150.81 (18.5).

**Compound 10.** MS(m/z, relative intensity): 455 (100%,  $[M - Nph]^+$ , Sn-pattern); 323 (2%,  $[M - Nph_2]^+$ , Sn-pattern); 197 (15%, Sn-pattern); 189 (25%,  $[M - Nph_3]^+$ , Sn-pattern); 119 (9%,  $[Sn]^+$ ); 91 (79%,  $[C_7H_7]^+$ ); 55 (15%,  $[C_3H_3O]^+$ ). FT IR (neat)  $1688\text{ cm}^{-1}$ (C=O).

**Compound 13.** MS(m/z, relative intensity): 519 (3%,  $[SnNph_3]^+$ ); 469 (100%,  $[M - Nph]^+$ , Sn-pattern); 335 (2%,  $[M - Nph_2]^+$ , Sn-pattern); 203 (23%,  $[M - Nph_3]^+$ , Sn-pattern); 197 (11%, Sn-pattern); 133 (5%,  $[Nph]^+$ ); 91 (38%,  $[C_7H_7]^+$ ); 55 (8%,  $[C_3H_3O]^+$ ). FT IR (neat)  $1681\text{ cm}^{-1}$ (C=O).

**Compound 14.** MS(m/z, relative intensity): 519 (3%,  $[SnNph_3]^+$ ); 469 (100%,  $[M - Nph]^+$ , Sn-pattern); 385 (35%,  $[SnNph_2]^+$ ); 253 (7%,  $[SnNph]^+$ ); 203 (16%,  $[M - Nph_3]^+$ , Sn-pattern); 197 (17%, Sn-pattern); 133 (16%,  $[Nph]^+$ ); 119 (3%,  $[Sn]^+$ ); 91 (85%,  $[C_7H_7]^+$ ); 55 (16%,  $[C_3H_3O]^+$ ). FT IR (neat)  $1665\text{ cm}^{-1}$ (C=O).

**Compound 15.** MS(m/z, relative intensity): 519 (3%,  $[SnNph_3]^+$ ); 469 (100%,  $[M - Nph]^+$ , Sn-pattern); 385 (20%,  $[SnNph_2]^+$ ); 253 (5%,  $[SnNph]^+$ ); 203 (15%,  $[M - Nph_3]^+$ , Sn-pattern); 197 (14%, Sn-pattern); 133 (11%,  $[Nph]^+$ ); 119 (2%,  $[Sn]^+$ ); 91 (59%,  $[C_7H_7]^+$ ); 55 (11%,  $[C_3H_3O]^+$ ). FT IR (neat)  $1670\text{ cm}^{-1}$ (C=O).

**Compound 16.** MS(m/z, relative intensity): 511 (100%,  $[M - Nph]^+$ , Sn-pattern); 385 (20%,  $[SnNph_2]^+$ ); 253 (8%,  $[SnNph]^+$ ); 245 (18%,  $[M - Nph_3]^+$ , Sn-pattern); 197 (15%, Sn-pattern); 133 (8%,  $[Nph]^+$ ); 91 (74%,  $[C_7H_7]^+$ ); 55 (16%,  $[C_3H_3O]^+$ ). FT IR (neat)  $1665\text{ cm}^{-1}$ (C=O).

**Compound 17.** MS(m/z, relative intensity): 511 (100%,  $[M-Nph]^+$ , Sn-pattern); 385 (22%,  $[SnNph_2]^+$ ); 253 (7%,  $[SnNph]^+$ ); 245 (13%,  $[M - Nph_3]^+$ , Sn-pattern); 197 (18%, Sn-

pattern); 133 (13%, [Nph]<sup>+</sup>); 91 (69%, [C<sub>7</sub>H<sub>7</sub>]<sup>+</sup>); 55 (13%, [C<sub>3</sub>H<sub>3</sub>O]<sup>+</sup>). FT IR (neat) 1660 cm<sup>-1</sup>(C=O).

**Compound 21.** MS(m/z, relative intensity): 531 (44%, [M - Nph]<sup>+</sup>, Sn-pattern); 519 (59%, [SnNph<sub>3</sub>]<sup>+</sup>); 403 (45%, Sn-pattern); 385 (36%, [SnNph<sub>2</sub>]<sup>+</sup>); 253 (16%, [SnNph]<sup>+</sup>); 197 (21%, Sn-pattern); 133 (22%, [Nph]<sup>+</sup>); 117 (15%, [Sn]<sup>+</sup>); 105 (13%, [C<sub>8</sub>H<sub>9</sub>]<sup>+</sup>); 91 (100%, [C<sub>7</sub>H<sub>7</sub>]<sup>+</sup>). FT IR (neat) 1670 cm<sup>-1</sup>(C=O).

**Compound 23.** MS(m/z, relative intensity): 517 (100%, [M - Nph]<sup>+</sup>, Sn-pattern); 421 (47%, Sn-pattern); 385 (21%, [SnNph<sub>2</sub>]<sup>+</sup>); 253 (12%, [SnNph]<sup>+</sup>); 251 (15%, [M - Nph<sub>3</sub>]<sup>+</sup>, Sn-pattern); 197 (13%, Sn-pattern); 133 (31%, [Nph]<sup>+</sup>); 119 (8%, [Sn]<sup>+</sup>); 105 (41%, [C<sub>7</sub>H<sub>5</sub>O]<sup>+</sup>); 91 (99%, [C<sub>7</sub>H<sub>7</sub>]<sup>+</sup>). FT IR (neat) 1671 cm<sup>-1</sup>(C=O).

**Compound 24.** MS(m/z, relative intensity): 517 (100%, [M - Nph]<sup>+</sup>, Sn-pattern); 421 (7%, Sn-pattern); 385 (6%, [SnNph<sub>2</sub>]<sup>+</sup>); 253 (7%, [SnNph]<sup>+</sup>); 251 (15%, [M - Nph<sub>3</sub>]<sup>+</sup>, Sn-pattern); 197 (19%, Sn-pattern); 133 (12%, [Nph]<sup>+</sup>); 119 (15%, [Sn]<sup>+</sup>); 105 (21%, [C<sub>7</sub>H<sub>5</sub>O]<sup>+</sup>); 91 (86%, [C<sub>7</sub>H<sub>7</sub>]<sup>+</sup>). FT IR (neat) 1673 cm<sup>-1</sup>(C=O).

**Compound 26.** MS(m/z, relative intensity): 530 (44%, [M - Nph]<sup>+</sup>, Sn-pattern); 420 (11%, Sn-pattern); 384 (34%, [SnNph<sub>2</sub>]<sup>+</sup>); 264 (7%, [M - Nph<sub>3</sub>]<sup>+</sup>, Sn-pattern); 252 (11%, [SnNph]<sup>+</sup>); 197 (21%, Sn-pattern); 133 (24%, [Nph]<sup>+</sup>); 105 (22%, [C<sub>7</sub>H<sub>5</sub>O]<sup>+</sup>); 91 (100%, [C<sub>7</sub>H<sub>7</sub>]<sup>+</sup>). FT IR (neat) 1665 cm<sup>-1</sup>(C=O).

**Compound 27.** MS(m/z, relative intensity): 571 (7%, [M - Nph]<sup>+</sup>, Sn-pattern); 517 (8%, [SnNph<sub>3</sub>]<sup>+</sup>); 505 (21%, Sn-pattern); 384 (46%, [SnNph<sub>2</sub>]<sup>+</sup>); 252 (11%, [SnNph]<sup>+</sup>); 196 (19%, Sn-pattern); 133 (24%, [Nph]<sup>+</sup>); 105 (31%, [C<sub>7</sub>H<sub>5</sub>O]<sup>+</sup>); 91 (100%, [C<sub>7</sub>H<sub>7</sub>]<sup>+</sup>). FT IR (neat) 1671 cm<sup>-1</sup>(C=O).

**Compound 29.** MS(m/z, relative intensity): 592 (17%,  $[M - Nph]^+$ , Sn-pattern); 519 (41%,  $[SnNph_3]^+$ ); 507 (23%, Sn-pattern); 403 (8%, Sn-pattern); 385 (42%,  $[SnNph_2]^+$ ); 327 (8%,  $[M - Nph_3]^+$ , Sn-pattern); 253 (12%,  $[SnNph]^+$ ); 197 (25%, Sn-pattern); 133 (17%,  $[Nph]^+$ ); 105 (46%,  $[C_7H_5O]^+$ ); 91 (100%,  $[C_7H_7]^+$ ); 77 (19%,  $[C_6H_5]^+$ ). FT IR (neat)  $1665\text{ cm}^{-1}$ (C=O).