Schème-1: Outline for extraction of compound.

Table-1: Determination of the inhibition zone of the *D. adscendens* leaves extract.

<table>
<thead>
<tr>
<th>M.O.</th>
<th>Inhibition Zone (ø mm) (<em>D. adscendens</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E₁</td>
</tr>
<tr>
<td></td>
<td>We</td>
</tr>
<tr>
<td>E.c</td>
<td>9±1</td>
</tr>
<tr>
<td>C.a</td>
<td>na</td>
</tr>
<tr>
<td>A.n</td>
<td>na</td>
</tr>
<tr>
<td>P.a</td>
<td>7±1</td>
</tr>
<tr>
<td>B.s</td>
<td>8±1</td>
</tr>
<tr>
<td>S.a</td>
<td>11±2</td>
</tr>
</tbody>
</table>

- Values are mean ± SD of three determinations.
- *S.a:* *Staphylococcus aureus*; *B.s:* *Bacillus subtilis*; *E.c.:* *Escherichia coli*; *P.a.*: *Pseudomonas aeruginos*; *A.n.:* *Aspergillus niger*; *C.a.:* *Candida albicans*.
- water extract, MWE: methanol-water extract.
- W (-): distillate water negative control, MW (-): methanol - water (50/50 v/v) negative control.
### Table-2: Determination of Concentration Minimal of Inhibition (CMI).

<table>
<thead>
<tr>
<th>M.O</th>
<th>CMI (mg/ml) (D. adscendens)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$E_{f}$</td>
</tr>
<tr>
<td></td>
<td>CN(+) µg/ml</td>
</tr>
<tr>
<td></td>
<td>We</td>
</tr>
<tr>
<td>E.c.</td>
<td>150</td>
</tr>
<tr>
<td>C.a.</td>
<td>nd</td>
</tr>
<tr>
<td>A.n.</td>
<td>nd</td>
</tr>
<tr>
<td>P.a.</td>
<td>&gt;150</td>
</tr>
<tr>
<td>B.s.</td>
<td>&gt;150</td>
</tr>
<tr>
<td>S.a.</td>
<td>&gt;150</td>
</tr>
</tbody>
</table>

- nd: not determined. We : water extract, MWE : methanol water extract.
- CN(-): negative control, CN(+): positive control.

### Table-3: Qualitative and quantitative analyses of essential oils of D. adscendens leaves.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Rt (min)</th>
<th>Compounds</th>
<th>% (v/v ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.08</td>
<td>2-pentyl furan</td>
<td>2.71</td>
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<tr>
<td>2</td>
<td>3.16</td>
<td>1-methyl silabenzène</td>
<td>1.97</td>
</tr>
<tr>
<td>3</td>
<td>3.32</td>
<td>azido-4 heptane</td>
<td>2.02</td>
</tr>
<tr>
<td>4</td>
<td>3.65</td>
<td>2-(N-methyl pyrrolidine) methanamine</td>
<td>0.57</td>
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<tr>
<td>5</td>
<td>3.92</td>
<td>ol-1, 3-hexene</td>
<td>1.92</td>
</tr>
<tr>
<td>6</td>
<td>6.90</td>
<td>2,2- dimethyl-hexanale</td>
<td>3.37</td>
</tr>
<tr>
<td>7</td>
<td>6.97</td>
<td>3-octenol</td>
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<tr>
<td>8</td>
<td>10.40</td>
<td>geraniol</td>
<td>5.42</td>
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<tr>
<td>9</td>
<td>10.54</td>
<td>pelargonaldehyde</td>
<td>3.26</td>
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<tr>
<td>10</td>
<td>13.14</td>
<td>methyl benzoate</td>
<td>0.51</td>
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<tr>
<td>11</td>
<td>13.34</td>
<td>perillardehyde</td>
<td>0.57</td>
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<td>19.40</td>
<td>$\alpha$-terpinolene</td>
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<td>20.04</td>
<td>linalool</td>
<td>2.64</td>
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<td>14</td>
<td>20.24</td>
<td>$\alpha$-caryophyllene</td>
<td>4.67</td>
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<td>15</td>
<td>20.45</td>
<td>mandelique acid</td>
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<td>16</td>
<td>20.84</td>
<td>$\beta$-ionone</td>
<td>3.47</td>
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<tr>
<td>17</td>
<td>20.92</td>
<td>ol-13 8-cedrene,</td>
<td>0.62</td>
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<td>21.15</td>
<td>eudesma</td>
<td>7.41</td>
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<td>21.78</td>
<td>$\alpha$-terpinene</td>
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<td>21.81</td>
<td>3-(2-pentyl) 1, 2,4- cyclopentanetrione</td>
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<td>22.85</td>
<td>oleic acid</td>
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<td>22</td>
<td>23.38</td>
<td>caryophyllene oxide</td>
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<td>23</td>
<td>24.04</td>
<td>epoxide II humulene</td>
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<td>24</td>
<td>29.05</td>
<td>phytone</td>
<td>14.72</td>
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<td>29.37</td>
<td>scytalolone</td>
<td>3.83</td>
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<td>26</td>
<td>30.44</td>
<td>hyperforine</td>
<td>3.07</td>
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<td>31.47</td>
<td>palmitic acid</td>
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<td>31.68</td>
<td>margaric acid</td>
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<td>32.15</td>
<td>$\alpha$-isomethyl ionone</td>
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<td>33.91</td>
<td>linoleic</td>
<td>1.42</td>
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<tr>
<td>31</td>
<td>34.02</td>
<td>4, 6,9- nonadecatriene</td>
<td>0.83</td>
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<td>32</td>
<td>34.78</td>
<td>cetanole</td>
<td>1.22</td>
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</table>

- Ref = Reference; Rt = Retention time

### Table-4: Identifies phenolic compounds.

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<tr>
<th>Ref.</th>
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<th>Identified compounds</th>
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<tbody>
<tr>
<td>1</td>
<td>34.47 ± 0.03</td>
<td>$p$-coumaric acid</td>
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<tr>
<td>2</td>
<td>29.32 ± 0.06</td>
<td>caffeic acid</td>
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<tr>
<td>3</td>
<td>36.72 ± 0.08</td>
<td>rutin</td>
</tr>
<tr>
<td>4</td>
<td>31.95 ± 0.04</td>
<td>epicatechin</td>
</tr>
<tr>
<td>5</td>
<td>42.65 ± 0.09</td>
<td>quercetin</td>
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</table>
Table 5: Structural NMR analyses of compound X₁.

<table>
<thead>
<tr>
<th>Atom</th>
<th>H δ (ppm)</th>
<th>J (Hz)</th>
<th>C δ (ppm)</th>
<th>HMQC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>171.03</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>162.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7.63-7.57 (d)</td>
<td>15</td>
<td>146.66</td>
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<tr>
<td>4.5</td>
<td>7.46-7.43 (m)</td>
<td>131.09</td>
<td>(H-4/C-4)</td>
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<td>6</td>
<td>127.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.8</td>
<td>6.82-6.81 (m)</td>
<td>116.80</td>
<td>(H-7/C-7)</td>
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<td>9</td>
<td>6.31-6.25 (d)</td>
<td>15</td>
<td>115.59</td>
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Table 6: Structural NMR analyses of compound X₂.

<table>
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<tr>
<th>Atom</th>
<th>H δ (ppm)</th>
<th>J (Hz)</th>
<th>C δ (ppm)</th>
<th>HMQC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>171.03</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>149.47</td>
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<td>3</td>
<td>147.03</td>
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<td></td>
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<td>4</td>
<td>7.53-7.50 (d)</td>
<td>17</td>
<td>146.81</td>
<td>H-4/C-4</td>
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<td>5</td>
<td>127.78</td>
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<td>6</td>
<td>6.79-6.75 (m)</td>
<td>122.84</td>
<td>H-6/C-6</td>
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<td>6.95-6.91 (m)</td>
<td>116.47</td>
<td>H-7/C-7</td>
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<td>6.24-6.18 (d)</td>
<td>17</td>
<td>115.51</td>
<td>H-8/C-8</td>
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<tr>
<td>9</td>
<td>7.04-7.03 (m)</td>
<td>115.05</td>
<td>H-9/C-9</td>
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</table>

Table 7: Structural NMR analyses of compound X₃.

<table>
<thead>
<tr>
<th>Atom (X₃)</th>
<th>H δ (ppm)</th>
<th>J (Hz)</th>
<th>C δ (ppm)</th>
<th>HMQC</th>
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<tbody>
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<td>1</td>
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<td>170.53</td>
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<td>3</td>
<td>166.38</td>
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</tr>
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<td>4</td>
<td>162.94</td>
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</tr>
<tr>
<td>5</td>
<td>159.31</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>158.35</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>149.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>145.94</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>135.62</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>7.67-7.62 (m)</td>
<td>123.59</td>
<td>H-10/C-10</td>
<td></td>
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<tr>
<td>11</td>
<td>7.67-7.62 (m)</td>
<td>123.11</td>
<td>H-11/C-11</td>
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<tr>
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<td>6.89-6.85 (d)</td>
<td>10</td>
<td>117.67</td>
<td>H-12/C-12</td>
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<tr>
<td>13</td>
<td>115.95</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>3.83-3.79 (d)</td>
<td>10</td>
<td>105.44</td>
<td>H-14/C-14</td>
</tr>
<tr>
<td>15</td>
<td>6.40 (s)</td>
<td>104.68</td>
<td>H-15/C-15</td>
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<td>16</td>
<td>6.21-6.20 (d)</td>
<td>1.3</td>
<td>102.39</td>
<td>H-16/C-16</td>
</tr>
<tr>
<td>17</td>
<td>5.12-5.09 (d)</td>
<td>7.5</td>
<td>100.09</td>
<td>H-17/C-17</td>
</tr>
<tr>
<td>18</td>
<td>3.83-3.79 (m)</td>
<td>94.94</td>
<td>H-18/C-18</td>
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<tr>
<td>19</td>
<td>3.63-3.06 (m)</td>
<td>78.13</td>
<td>H-19/C-19</td>
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<td>20</td>
<td>3.63-3.06 (m)</td>
<td>77.17</td>
<td>H-20/C-20</td>
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<td>75.64</td>
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<td>73.92</td>
<td>H-22/C-22</td>
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<td>3.63-3.06 (m)</td>
<td>72.20</td>
<td>H-23/C-23</td>
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<td>3.63-3.06 (m)</td>
<td>72.09</td>
<td>H-24/C-24</td>
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<td>3.63-3.06 (m)</td>
<td>69.70</td>
<td>H-25/C-25</td>
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<td>27</td>
<td>1.28-1.25 (d)</td>
<td>7</td>
<td>17.88</td>
<td>3H-27/C-27</td>
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</tbody>
</table>
### Table 8: Structural NMR analyses of compound X₄.

<table>
<thead>
<tr>
<th>Atome</th>
<th>$^1$H δ (ppm)</th>
<th>J(Hz)</th>
<th>$^{13}$C δ (ppm)</th>
<th>HMQC</th>
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<td>6.82-6.74(m)</td>
<td>119.38</td>
<td>H-7/C-7</td>
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<td>6.98-6.97(d)</td>
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<td>H-9/C-9</td>
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<td>100.05</td>
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<td>5.94-5.90(m)</td>
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<td>H-11/C-11</td>
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<td>H-12/C-12</td>
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<td>5.94-5.90(s)</td>
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<td>4.81-4.16(m)</td>
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<td>2.92-2.69(m)</td>
<td>29.27</td>
<td>2H-15/C-15</td>
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</table>

### Table 9: NMR structural characteristics of compound X₅.

<table>
<thead>
<tr>
<th>Atome (X₁₃)</th>
<th>$^1$H δ (ppm)</th>
<th>J(Hz)</th>
<th>$^{13}$C δ (ppm)</th>
<th>HMQC</th>
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<tbody>
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<td>7.74-7.73 (m)</td>
<td>121.65</td>
<td>H-10/C-10</td>
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<td>11</td>
<td>7.65-7.64 (m)</td>
<td>116.20</td>
<td>H-11/C-11</td>
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<tr>
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<td>6.89-6.86 (m)</td>
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<td>104.00</td>
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</tr>
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<td>6.18-6.17 (d)</td>
<td>2.5</td>
<td>94.38</td>
<td>H-15/C-15</td>
</tr>
</tbody>
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