Supporting Information

Biginelli-based Organic Nanoprobe for Simultaneous Estimation of Tyramine and 1, 2-Diaminopropane: application in real samples.

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**Table S1:** Comparison of current sensor with existing literature.
$^1$H-NMR(DMSO, 400MHz)
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Figure S2. $^{13}$C NMR spectrum of compound 1.
Figure S3. ESI Mass spectrum of compound 1.

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**Determination of detection limit.**

The detection limit (DL) of nano-aggregates of 1 for Ag (I) was determined from the following equation:

\[ DL = \frac{KS_{b1}}{S} \]

Where \( K = 3 \); \( S_{b1} \) is the standard deviation of the blank solution; \( S \) is the slope of the calibration curve. The detection limits of biogenic amines were also determined in a similar fashion.
### Table S1: Comparison of current sensor with existing literature.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Mode of detection</th>
<th>Pretreatment</th>
<th>Application to real sample analysis</th>
<th>Detection limit</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UV</td>
<td>Pretreatment</td>
<td>Urine</td>
<td>0.06 µM</td>
<td><em>J. Sep. Sci.</em>, 2009, <strong>32</strong>, 4143–4147.</td>
</tr>
<tr>
<td>3</td>
<td>UHPLC-MS/MS</td>
<td>Pretreatment</td>
<td>Anchovy (fish)</td>
<td>Range: 10–750 µg/L</td>
<td><em>J. Agric. Food Chem.</em>, 2012, <strong>60</strong>, 5324–5329</td>
</tr>
<tr>
<td>4</td>
<td>RP-HPLC coupled with fluorimetry</td>
<td>precolumn dansylation</td>
<td>Wines</td>
<td>0.04 mg/l</td>
<td><em>Food Chem.</em>, 2008, <strong>106</strong>, 1218–1224</td>
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<tr>
<td>6</td>
<td>Cyclic voltammetry using SWCNT</td>
<td>Pretreatment</td>
<td>Fish products</td>
<td>0.62 µM</td>
<td><em>J. Food Eng.</em>, 2015, <strong>149</strong>, 1–8.</td>
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<tr>
<td>7</td>
<td>Absorption-based Chromogenic Sensing on filter paper</td>
<td>-</td>
<td>-</td>
<td>0.02 mM</td>
<td><em>Anal. Chem.</em>, 2010, <strong>82</strong>, 8402-8405</td>
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<tr>
<td>8</td>
<td>Chameleon dye based, microtitre plate using fluorescence spectroscopy</td>
<td>Pretreatment</td>
<td>Fish samples</td>
<td>3.4 µM</td>
<td><em>Analyst</em>, 2011, <strong>136</strong>, 4492–4499</td>
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<tr>
<td>10</td>
<td>Amperometry</td>
<td>Pretreatment</td>
<td>Sauerkraut</td>
<td>0.57 µM</td>
<td><em>Sens. Actuators B</em>, 2013, <strong>178</strong>, 40–46.</td>
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<tr>
<td>11</td>
<td>Fluorescence Spectroscopy—using easily-engineered nanomaterials</td>
<td>No</td>
<td>Milk and Wine</td>
<td>3.91 nM</td>
<td>Current study.</td>
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</table>