### List of symbols and abbreviations

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL</td>
<td>Photoluminescence</td>
</tr>
<tr>
<td>TNT</td>
<td>2, 4, 6-trinitrotoluene</td>
</tr>
<tr>
<td>PEG</td>
<td>Polyethylene glycol (Molecular weight-2000)</td>
</tr>
<tr>
<td>UV-vis</td>
<td>Ultraviolet visible</td>
</tr>
<tr>
<td>FTIR</td>
<td>Fourier transform infra red</td>
</tr>
<tr>
<td>XRD</td>
<td>X-ray diffraction</td>
</tr>
<tr>
<td>TEM</td>
<td>Transmission electron microscopy</td>
</tr>
<tr>
<td>NMR</td>
<td>Nuclear magnetic resonance</td>
</tr>
<tr>
<td>TA</td>
<td>Thioacetamide</td>
</tr>
<tr>
<td>PSA</td>
<td>Particle size analyser</td>
</tr>
<tr>
<td>ZnS</td>
<td>Zinc sulphide</td>
</tr>
<tr>
<td>CdS</td>
<td>Cadmium sulphide</td>
</tr>
<tr>
<td>$i_p$</td>
<td>Peak current</td>
</tr>
<tr>
<td>$v$</td>
<td>Scan rate</td>
</tr>
<tr>
<td>CV</td>
<td>Cyclic voltammograms</td>
</tr>
<tr>
<td>ZnS/Au electrode</td>
<td>Zinc sulphide modified gold electrode</td>
</tr>
<tr>
<td>CdS/Au electrode</td>
<td>Cadmium sulphide modified gold electrode</td>
</tr>
<tr>
<td>NB</td>
<td>Nitrobenzene</td>
</tr>
<tr>
<td>DNT</td>
<td>2,4-dinitrotoluene</td>
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<tr>
<td>NaCN</td>
<td>Sodium cyanide</td>
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<tr>
<td>Au</td>
<td>Gold</td>
</tr>
<tr>
<td>s</td>
<td>Seconds</td>
</tr>
<tr>
<td>PBS</td>
<td>Phosphate buffer solution</td>
</tr>
<tr>
<td>mV</td>
<td>Millivolt</td>
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</tbody>
</table>