Electronic Supporting Information

Spectroscopic Investigation of Bio-mimetic Solvolysis of 6-(N,N-dimethylamino)-2,3-naphthalic Anhydride in Confined Nanocavities

Figure S1: Steady state fluorescence spectra of solvolysis of DMN-Anh in ethanol at 45 °C
Figure S2: Kinetics of DMN-Anh in ethanol at different temperatures monitoring the fluorescence intensity at 450 nm

Table S1: Temperature dependent rate constant values in case of MeOH and BuOH

<table>
<thead>
<tr>
<th>k (MeOH)</th>
<th>lnk (MeOH) (min⁻¹)</th>
<th>k (BuOH)</th>
<th>lnk (BuOH) (min⁻¹)</th>
<th>1/T (K⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>460000</td>
<td>13.03898</td>
<td>2680.3</td>
<td>7.89368</td>
<td>3.14000e-3</td>
</tr>
<tr>
<td>280000</td>
<td>12.54254</td>
<td>1641.8</td>
<td>7.40355</td>
<td>3.24700e-3</td>
</tr>
<tr>
<td>170000</td>
<td>12.04355</td>
<td>898.0</td>
<td>6.80017</td>
<td>3.36000e-3</td>
</tr>
<tr>
<td>67000</td>
<td>11.11245</td>
<td>647.0</td>
<td>6.47235</td>
<td>3.47000e-3</td>
</tr>
</tbody>
</table>
Figure S3: Steady state fluorescence spectra of solvolysis of DMN-Anh in propanol at 25 °C
**Figure S4:** Kinetics of DMN-Anh in propanol at different temperatures monitoring the fluorescence intensity at 450 nm
Figure S5: Steady state fluorescence spectra of solvolysis of DMN-Anh in n-butanol at 45 °C
Figure S6: Steady state fluorescence spectra of solvolysis of DMN-Anh in ethylene glycol at 15 °C
Figure S7: Steady state fluorescence spectra of solvolysis of DMN-Anh in tert-Butanol at 45 °C
Figure S8: Steady state fluorescence spectra of hydrolysis of DMN-Anh in water at 45 °C
Figure S9: Steady state fluorescence spectra of hydrolysis of DMN-Anh in water in presence of 20 mM SDS at 25 °C
Figure S10: Steady state fluorescence spectra of hydrolysis of DMN-Anh in water in presence of 4 mM CTAB at 25 °C
Figure S11: Steady state fluorescence spectra of hydrolysis of DMN-Anh in water in presence of 2 mM TX-100 at 25 °C

Mass Spectra of Methanolysis Product of DMN-Anh
Figure S12: Exact mass (M) calculated 273.1, mass obtained in negative mode 272.1 (M⁻ ion), and 273.0 (M)

Mass Spectra of Ethanolysis Product of DMN-Anh
Figure S13: Exact mass (M) calculated 287.1, mass obtained in negative mode 286.1 (M⁻ ion), and 287.0 (M)