Electronic Supplementary Information for

Rational Construction of Gel-based Supramolecular Logic Gates by Functional Gelator with Multiple-Stimuli Responsive Properties

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1. Minimum gelator concentration and gel-sol transition temperatures of 1 in different solvents.

Table S1. Minimum gelator concentration (MGC) at 25 °C of gelator 1 in different organic-water mixtures. Gel-sol transition temperatures (T_\text{gel}) of the gels containing 5 mM gelator are also listed.

<table>
<thead>
<tr>
<th>solvent</th>
<th>methanol/H_2O (v/v = 1:1)</th>
<th>ethanol/H_2O (v/v = 1:1)</th>
<th>DMSO/H_2O (v/v = 1:1)</th>
<th>DMF/H_2O (v/v = 1:1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGC/mM</td>
<td>3.0</td>
<td>3.1</td>
<td>2.7</td>
<td>2.9</td>
</tr>
<tr>
<td>T_\text{gel}/K</td>
<td>315</td>
<td>321</td>
<td>331</td>
<td>328</td>
</tr>
</tbody>
</table>
2. TEM images of the xerogel of 1.

**Fig. S1.** TEM images of a xerogel of 1 obtained from DMSO/H\(_2\)O (v/v = 1/1, A and B) and DMF/H\(_2\)O (v/v = 1/1, C and D).
3. XRD profile of the xerogel of 1 measured at room temperature

**Fig. S2.** XRD profile of the xerogel of 1 measured at room temperature. The xerogel was obtained from DMSO/H$_2$O (v/v = 1:1).