Supporting Information

On the role of polymeric hydrogels in the thermal response of gold nanorods under NIR laser irradiation

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Hydrogel characterization

Thermogravimetric analysis (TGA)

Figure S1. TGA analyses of Au NRs-loaded hydrogel samples (blue line) and control samples (black line).

Differential scanning calorimetry (DSC)

Figure S2. DSC analyses of Au NRs-loaded hydrogel samples (blue line) and control samples (black line).
Gelation time

<table>
<thead>
<tr>
<th>gelation time [min]</th>
<th>HGs</th>
<th>Au-HGs</th>
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<td>7’10”</td>
<td>7’20”</td>
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**Table S1.** Gelation time of Au NRs-loaded hydrogel samples (Au-HGs) and control samples (HG).s.

**Scanning electron microscopy (SEM)**

**Figure S3.** SEM analysis of AC hydrogels loaded with Au NRs (a, c) and neat AC hydrogels (b, d). Scale bars: 200 μm (a, b); 100 μm (c); 20 μm (d).