

1 **Electronic Supporting Information**

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3 **Gelation and Luminescence of Lanthanide Hydrogels**
4 **Formed with Deuterium Oxide**

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19 **Figure S1** Excitation spectra of D₂O-Tb1 monitored at 545 nm and D₂O-Eu1 at 616 nm.

20 **Figure S2** Luminescence spectrum of H₂O-Eu1.

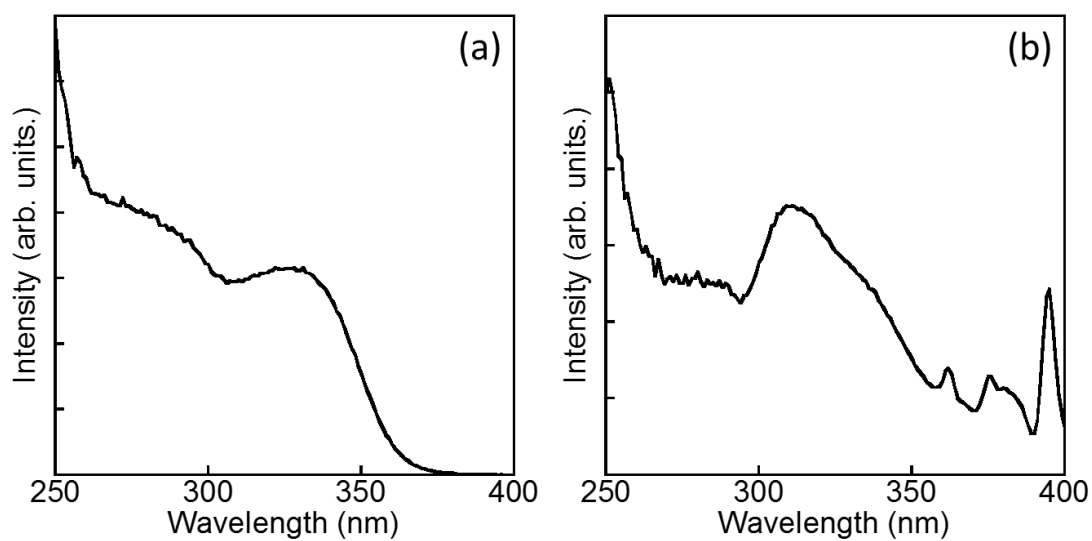
21 **Figure S3** Luminescence decay curves of (a) H₂O-Tb/Eu1, (b) D₂O-Tb/Eu1 and (c) Xerogel-
22 Tb/Eu1 at r.t., monitored at 545 nm (green line) and at 616 nm (red line) (λ_{ex} = 340 nm).
23 Gray line shows the instrument response function.

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29 **Figure S1** Excitation spectra of (a) D₂O-Tb1 monitored at 545 nm and (b) D₂O-Eu1
30 at 616 nm.

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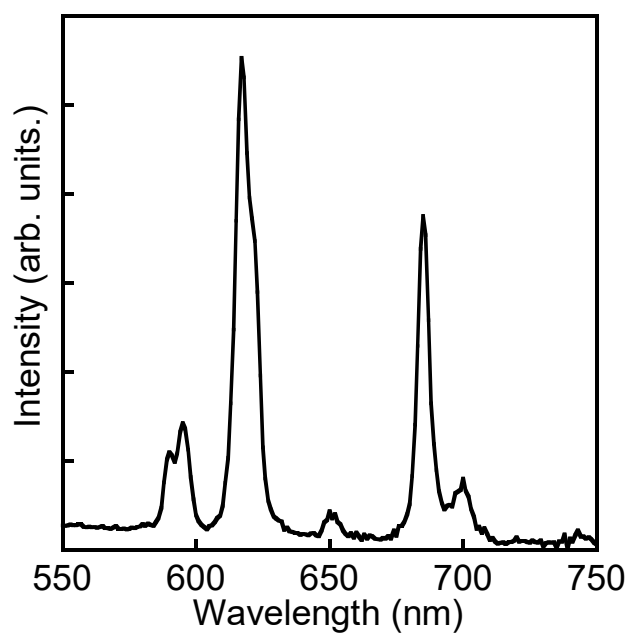
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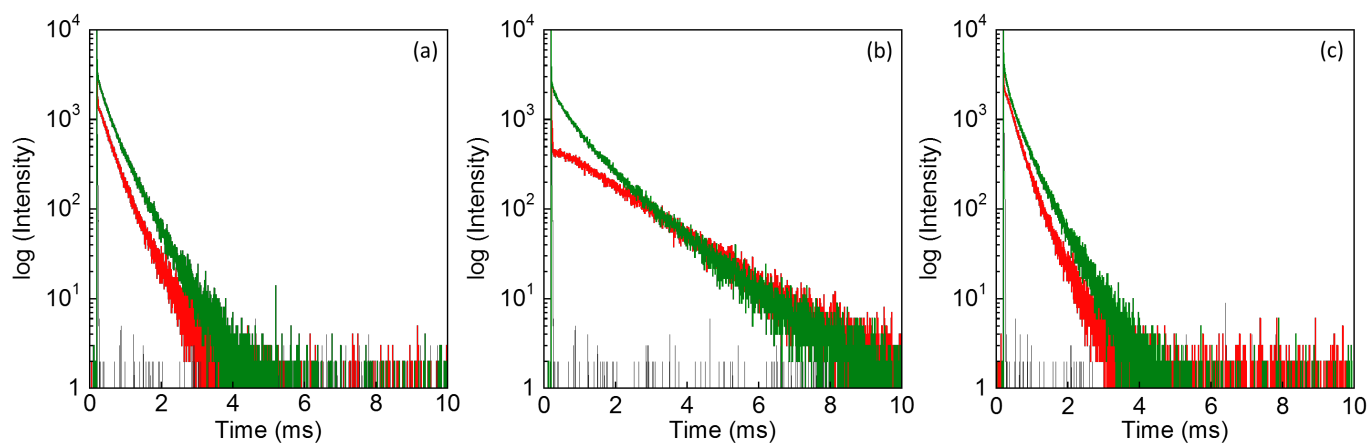
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48 **Figure S2** Luminescence spectrum of H₂O-Eu1. $\lambda_{ex} = 323$ nm.

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 52 **Figure S3** Luminescence decay curves of (a) H₂O-Tb/Eu1, (b) D₂O-Tb/Eu1 and (c)
 53 Xerogel- Tb/Eu1 at r.t., monitored at 545 nm (green line) and at 616 nm (red line) (λ_{ex}
 54 = 340 nm). Gray line shows the instrument response function.

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