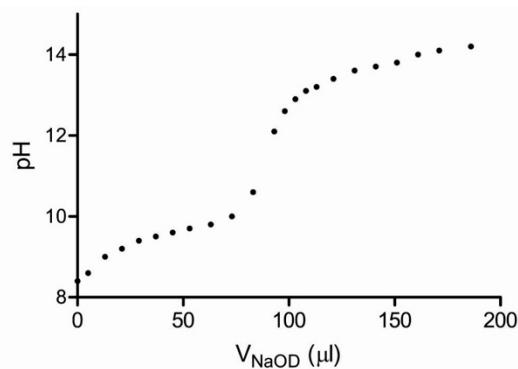
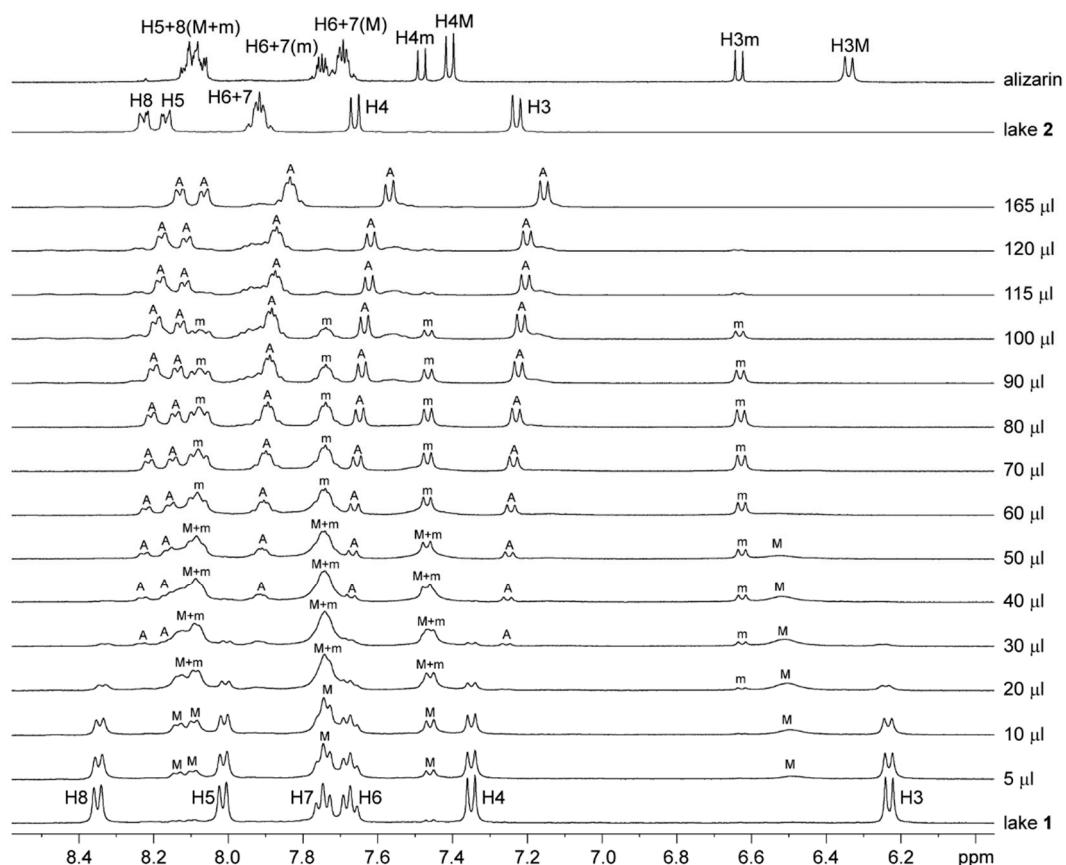




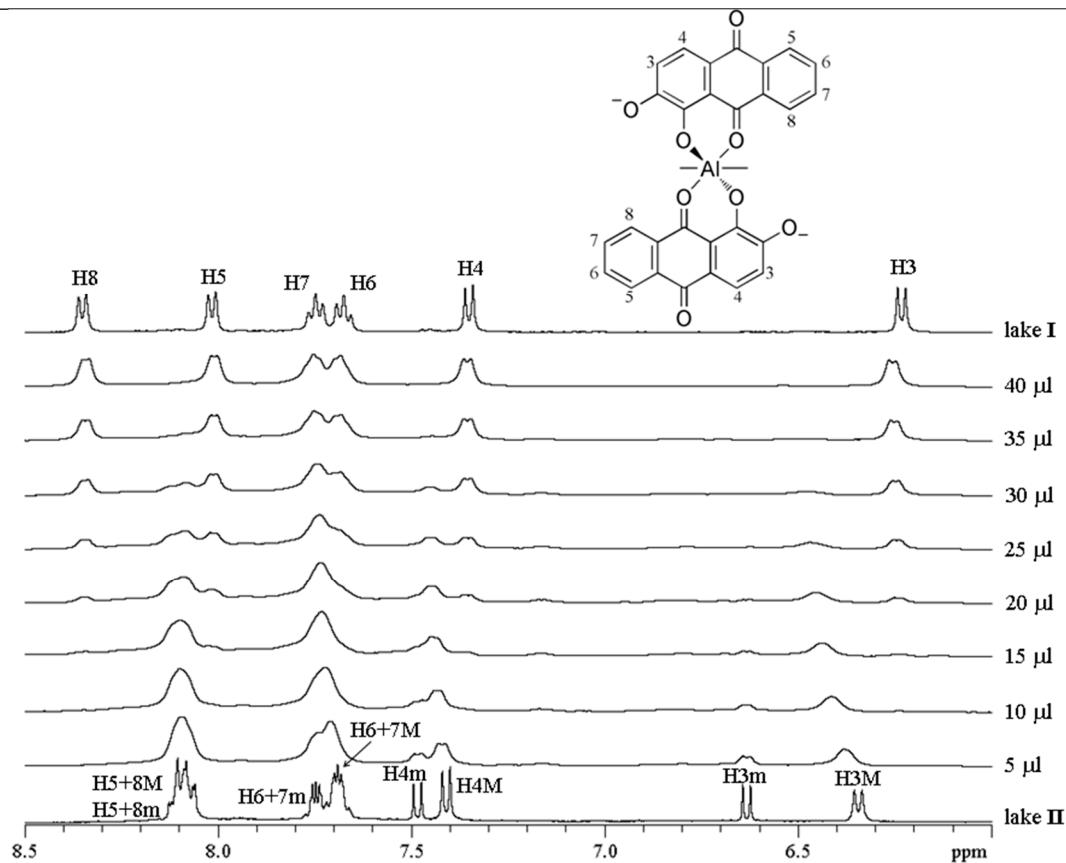
## Supplementary



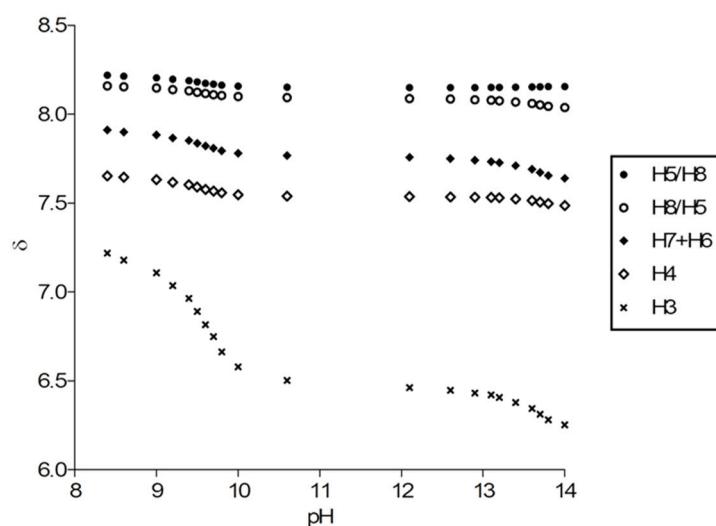
**Figure S1.** Titration curve of alizarin in  $\text{DMSO}-d_6$  containing residual water ( $c = 10,6 \text{ mg.ml}^{-1}$ ;  $0,044 \text{ mmol.ml}^{-1}$ ) using  $\text{NaOD}$  solution in  $\text{D}_2\text{O}$  ( $c = 0,33 \text{ mmol.ml}^{-1}$ ) at 298K.



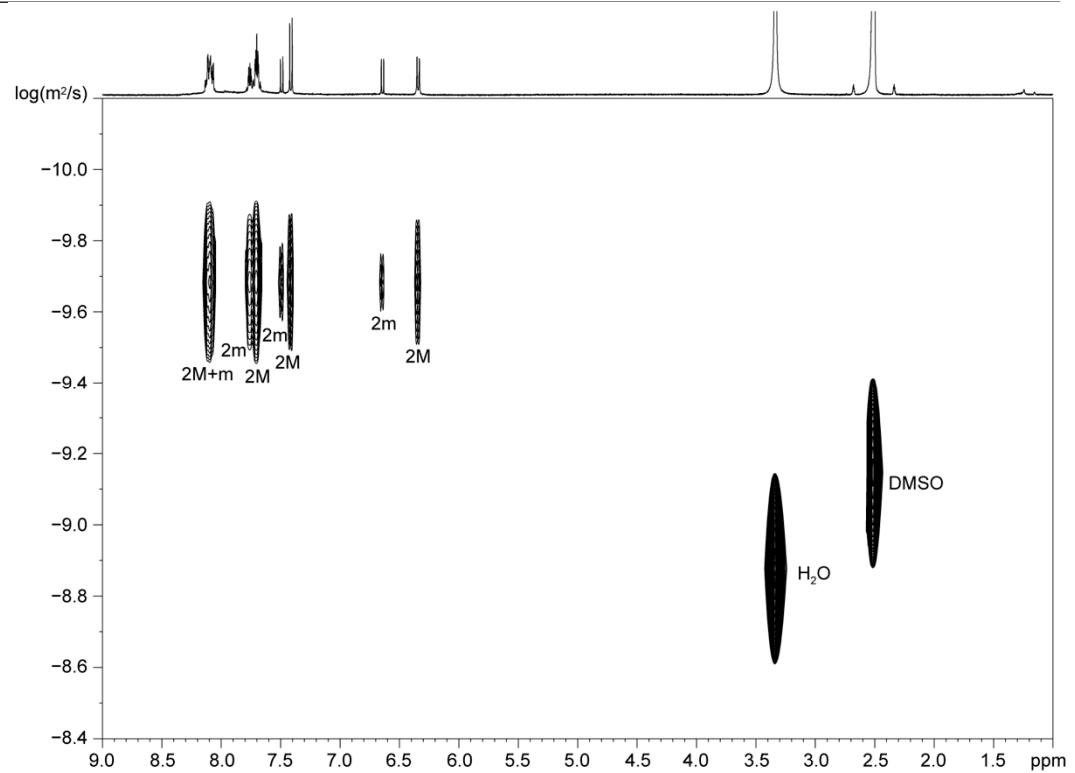
**Figure S2.**  $^{1}\text{H}$  NMR spectra ( $\text{DMSO}-d_6$ ) of  $\text{lake 1}$  with increasing volumes of  $\text{DCI}$  ( $c = 0,24 \text{ mmol/ml}$ ). "M" and "m" refer to species  $2\text{M}$  and  $2\text{m}$ , respectively, and "A" stands for alizarin.



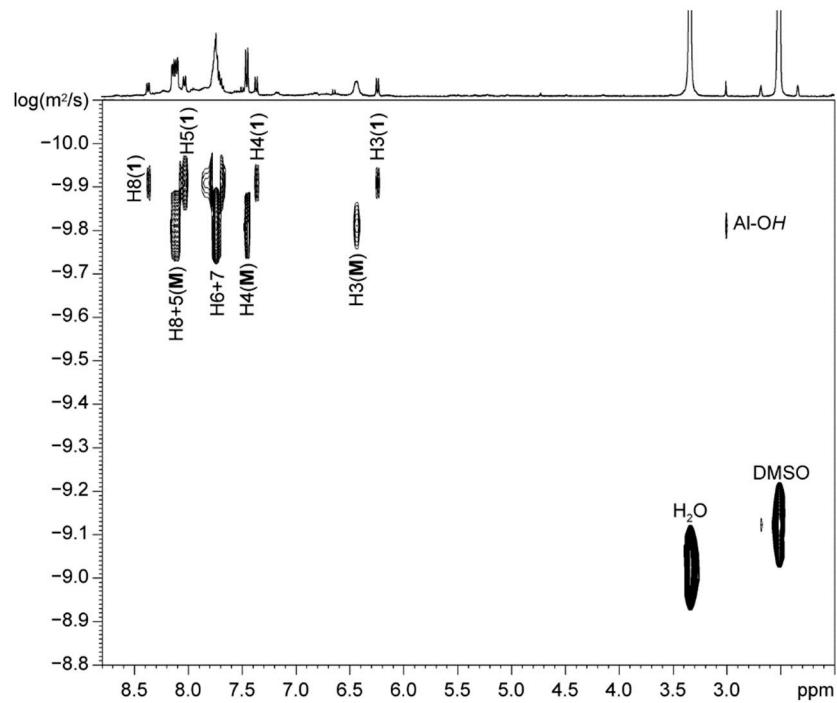
**Figure S3.** <sup>1</sup>H NMR spectra (DMSO-*d*<sub>6</sub>) of lake **2** with increasing volumes of NaOD (c = 0.33 mmol/ml) and comparison with lake **1**.



**Figure S4.** <sup>1</sup>H chemical shifts of alizarin as function of pH, in DMSO-*d*<sub>6</sub> solution containing residual water.



**Figure S5.** H-DOSY spectrum of lake **2** in  $\text{DMSO}-d_6$ , at 298K.



**Figure S6.** H-DOSY spectrum of a mixture of lakes **1** and **2** in  $\text{DMSO}-d_6$ , at 298K.

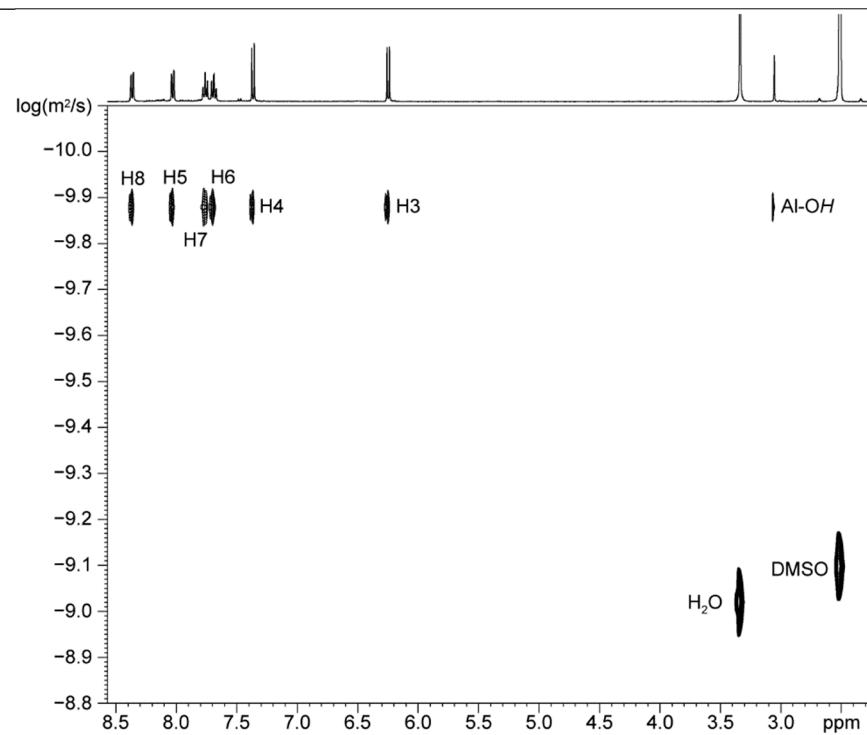


Figure S7. H-DOSY spectrum of lake 1 in DMSO-*d*<sub>6</sub>, at 298K.