## Supporting materials

## Solvent-modulated metamagnetism in a Fe(II) system exhibiting a two-step field-induced magnetic transition

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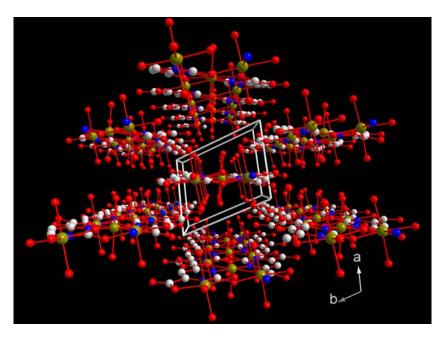
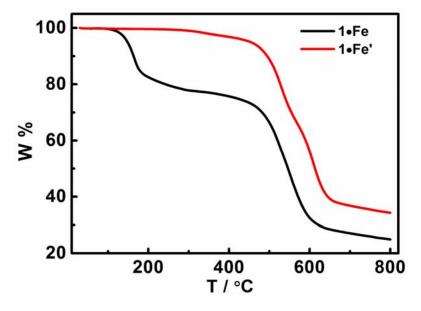


Fig. S1 Ball-and-stick representation of the packing pattern for 1·Fe.



**Fig. S2** TG plots for  $1 \cdot Fe$ (black) and  $1 \cdot Fe'$ (red) measured in flowing  $N_2$ .

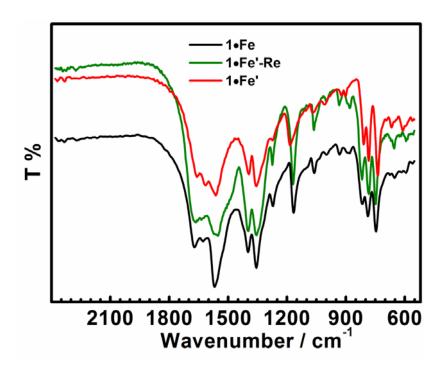
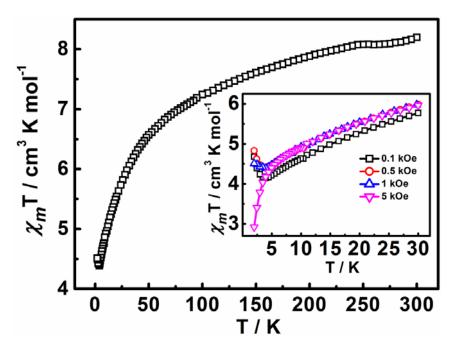


Fig. S3 IR spectra recorded for the transformation from  $1 \cdot Fe$ (black) to  $1 \cdot Fe$ '(red) and back to  $1 \cdot Fe$ '-Re(olive).



**Fig. S4** Plot of  $\chi_m T$  vs. T for **1·Fe'-Re** at 1 kOe. Inset: the blowup of the  $\chi_m T$  vs. T curves at low-temperature region under different external fields.