

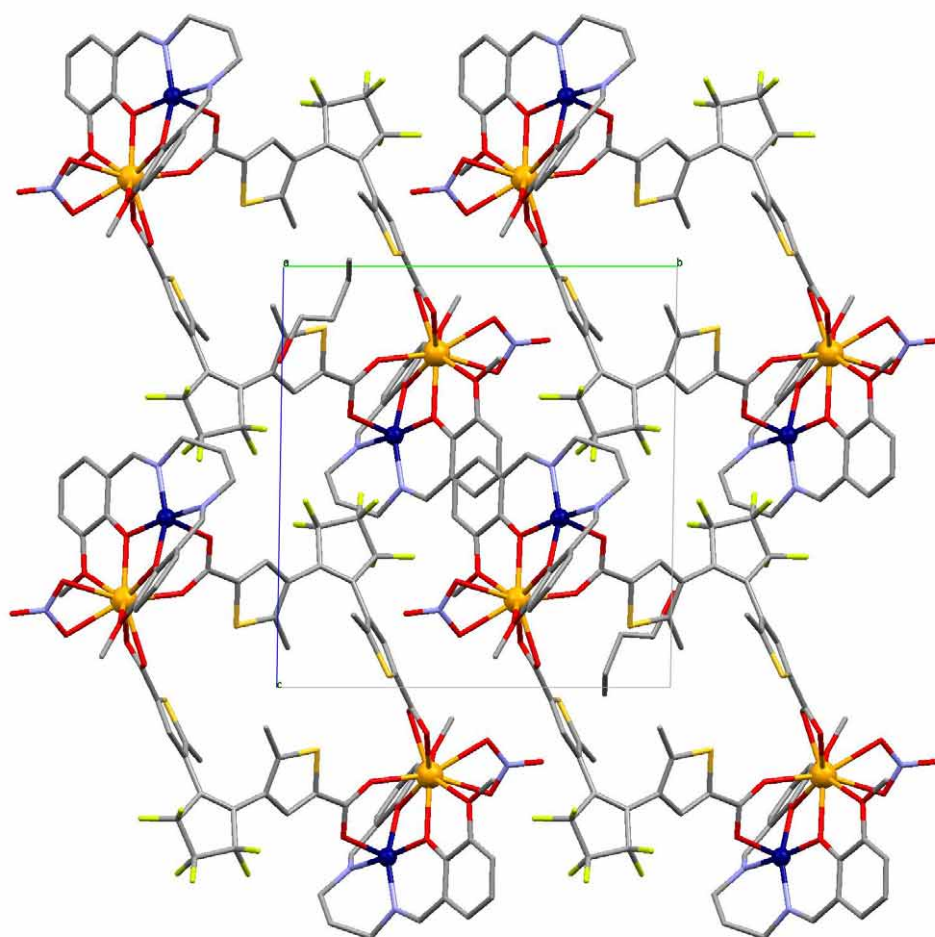
# Copper(II)-Terbium(III) Single-Molecule Magnets Linked by Photochromic Ligands

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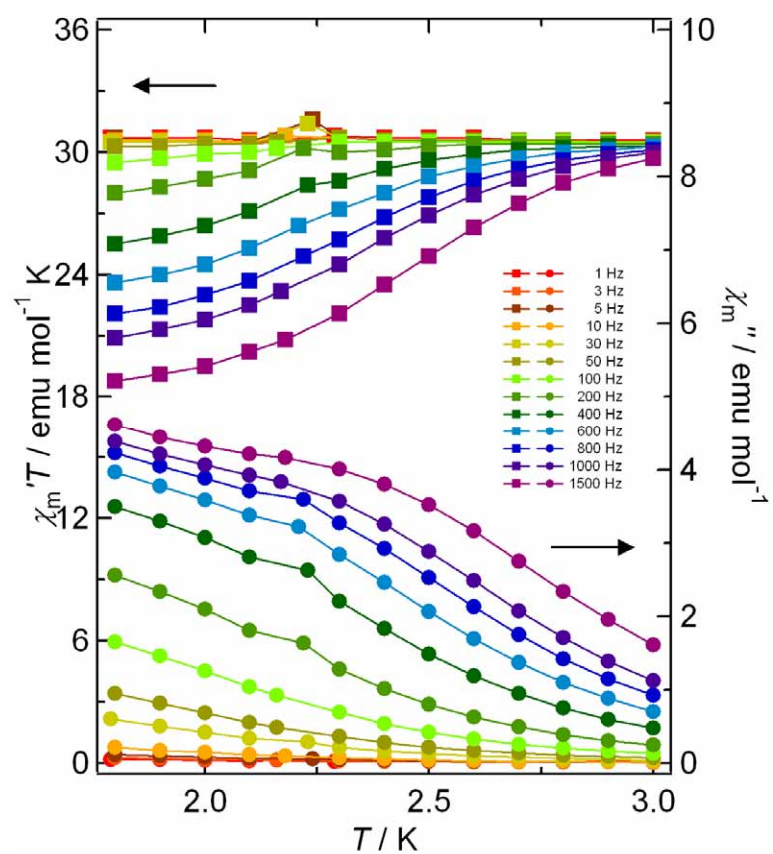
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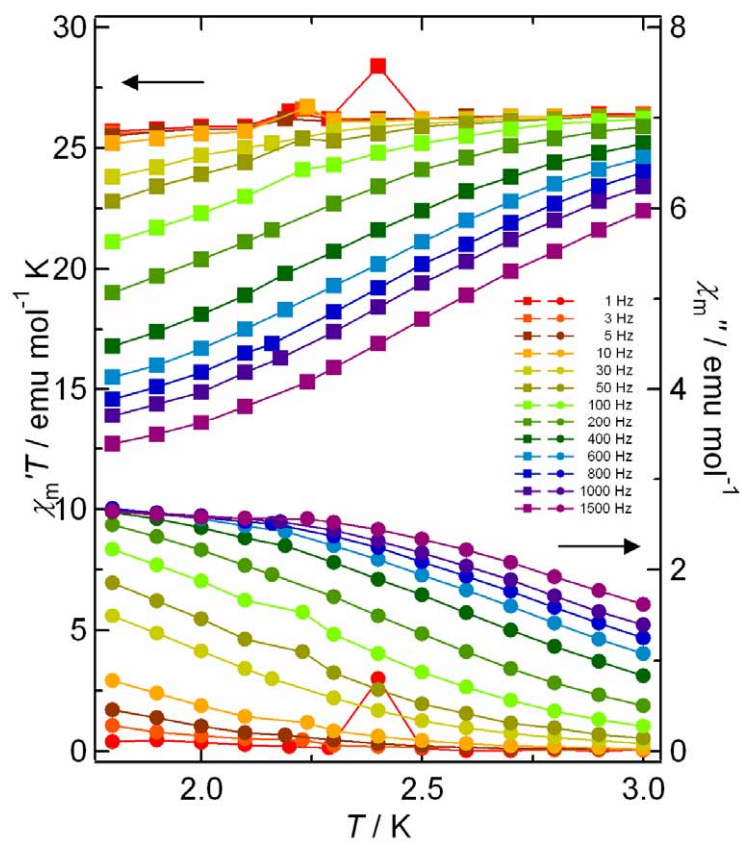
## Supporting Materials



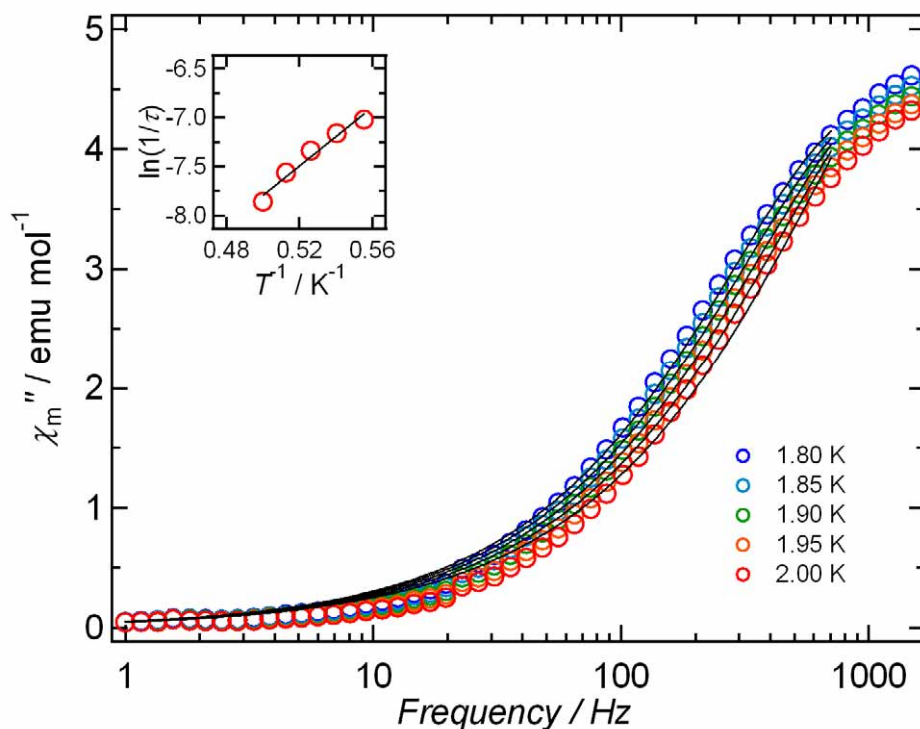
**Figure S1** Packing diagram along the *a* direction for a crystal of **1**.



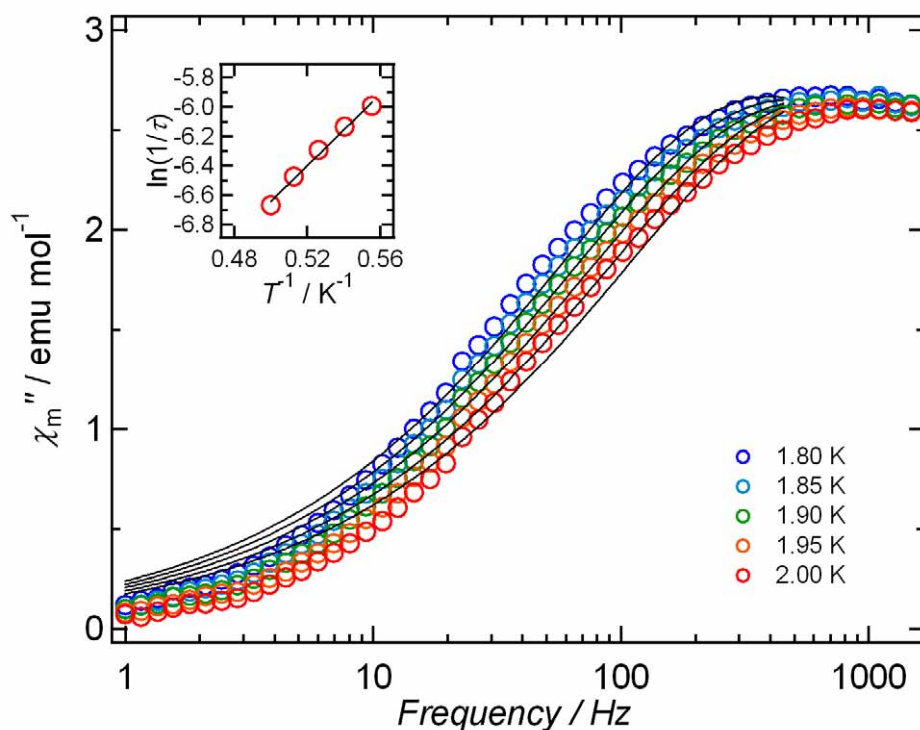
**Figure S2** Ac magnetic susceptibilities of **1** in a zero field.



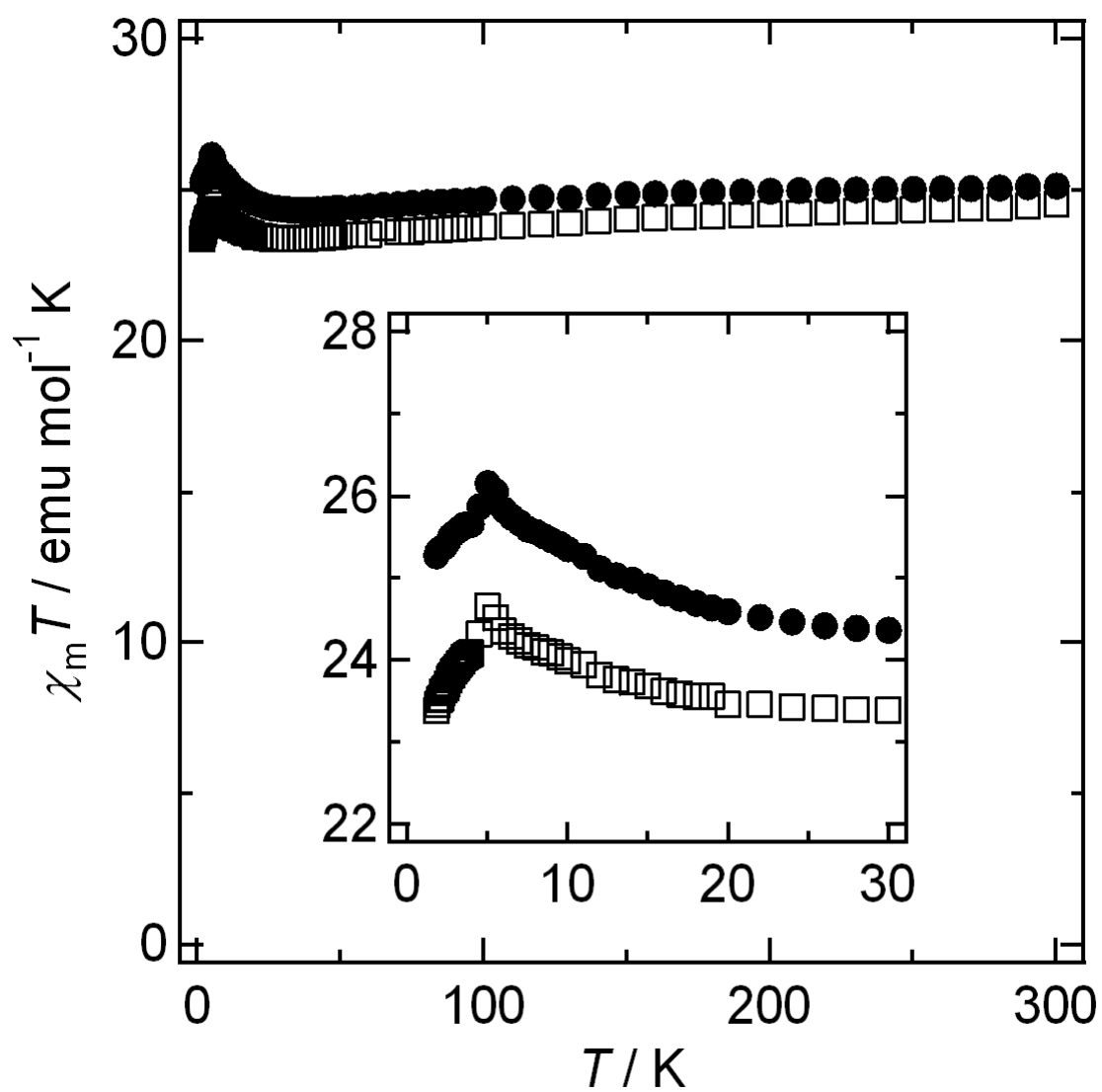
**Figure S3** Ac magnetic susceptibilities of **2** in a zero field.



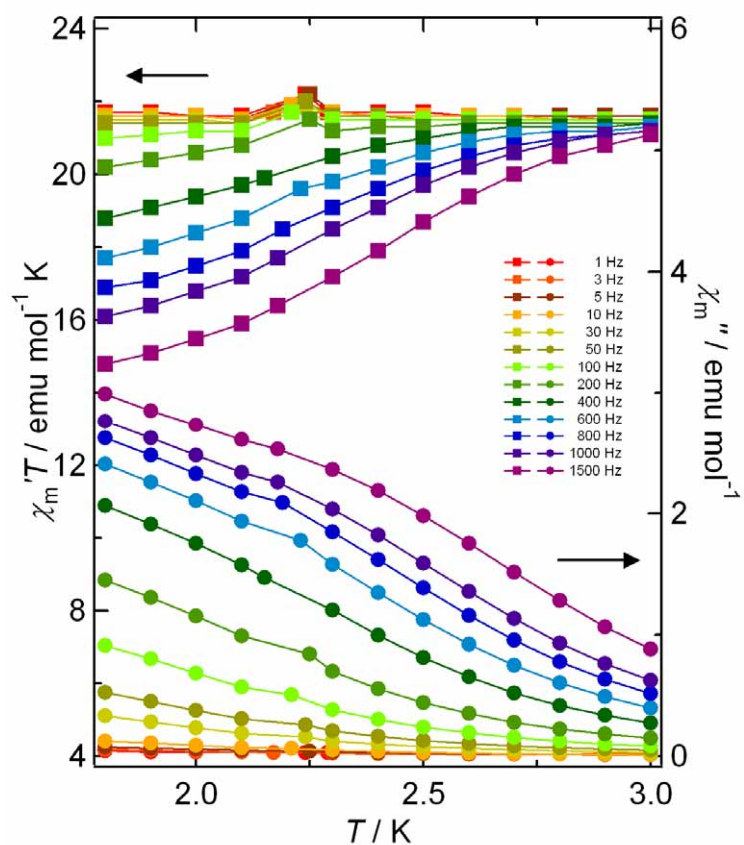
**Figure S4**  $\chi_m''$  versus frequency ( $\nu$ ) plots for **1** measured at several temperatures in a zero external dc field and a 3 Oe ac field. Solid lines were fitted by using a generalized Debye model for the determination of the relaxation time ( $\tau$ ). Inset are Arrhenius plots of  $\tau$  estimated from the simulations.



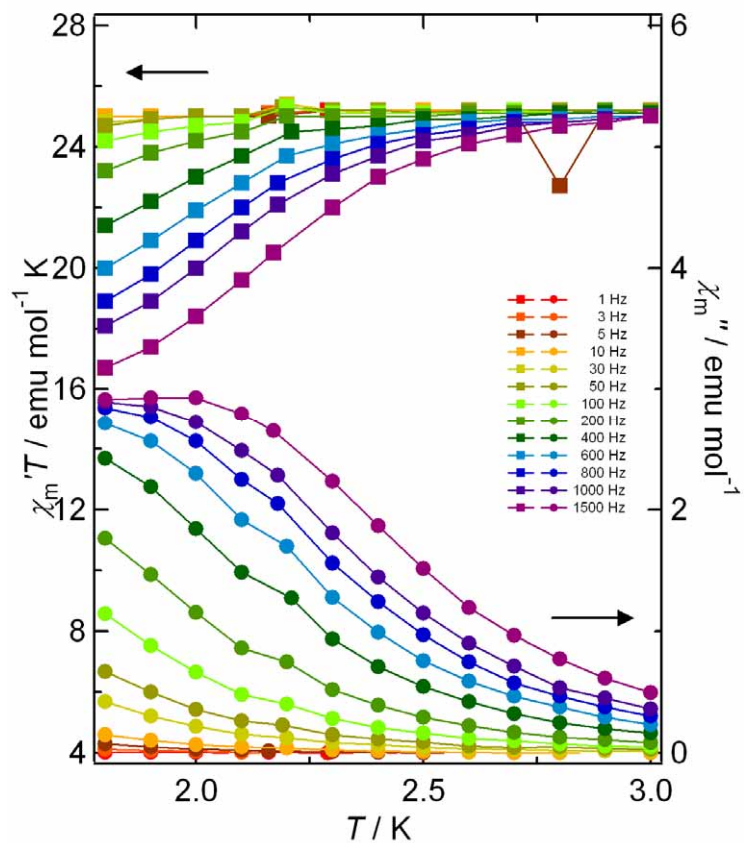
**Figure S5**  $\chi_m''$  versus frequency ( $\nu$ ) plots for **2** measured at several temperatures in a zero external dc field and a 3 Oe ac field. Solid lines were fitted by using a generalized Debye model for the determination of the relaxation time ( $\tau$ ). Inset are Arrhenius plots of  $\tau$  estimated from the simulations.



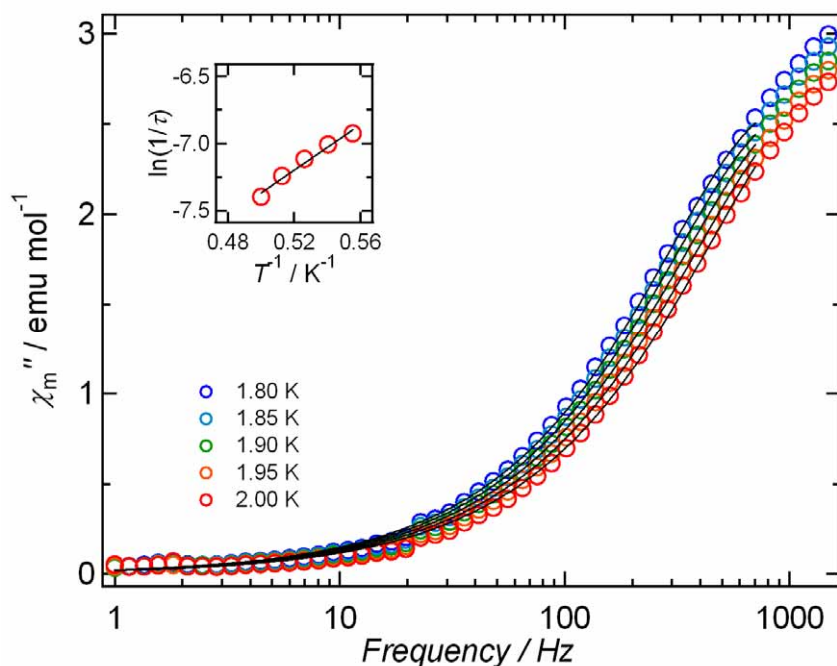
**Figure S6**  $\chi_m T$  versus  $T$  plots for 1 (●) and 2 (□) after irradiation. Inset: enlarged view.



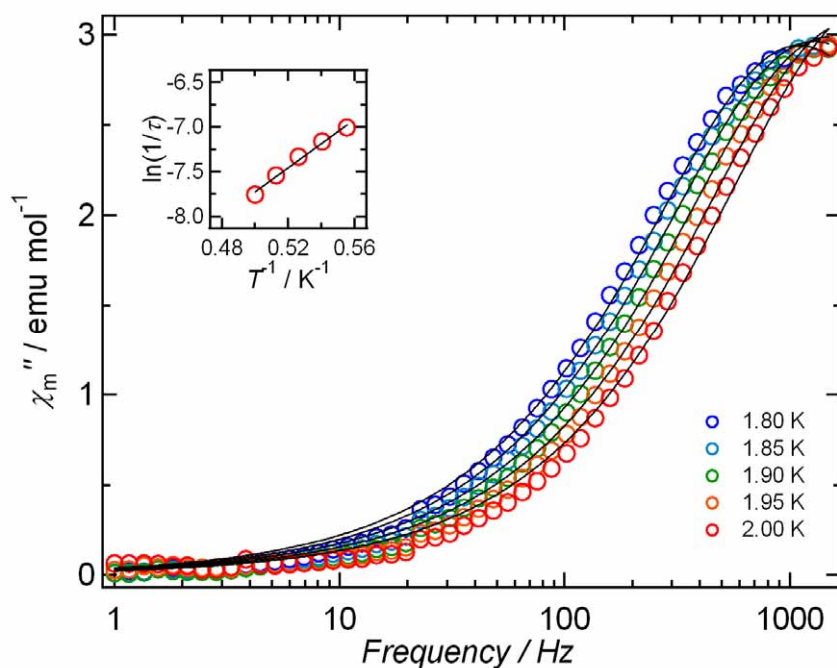
**Figure S7** Temperature dependences of  $\chi_m'T$ (■) and  $\chi_m'$ (●) versus  $T$  for **1** after UV light irradiation measured in a zero external field. Solid line is a guide.



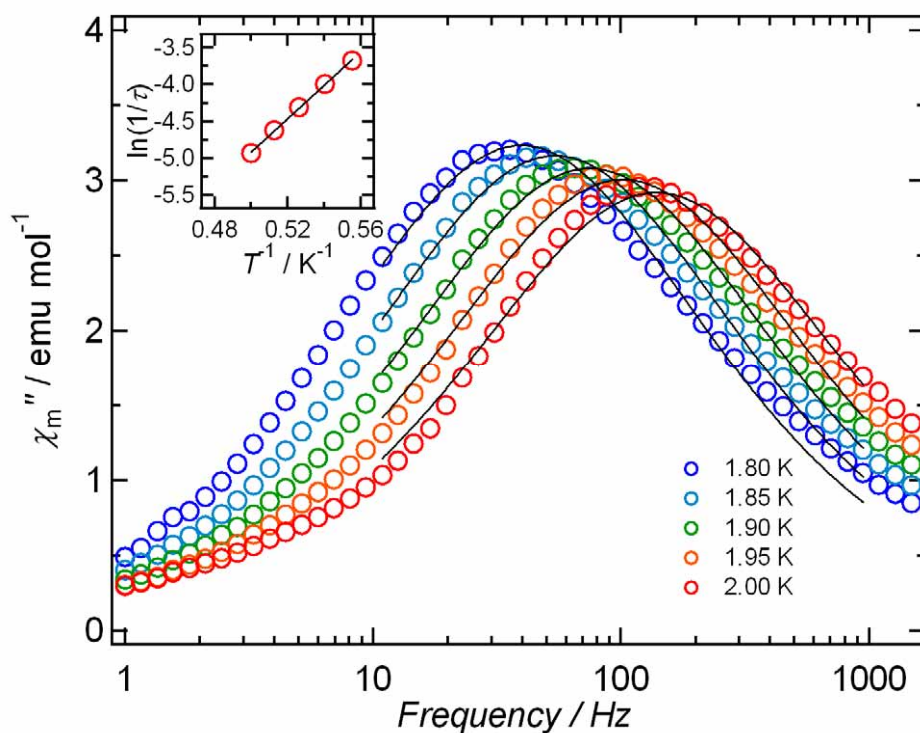
**Figure S8** Temperature dependences of  $\chi_m'T$ (■) and  $\chi_m'$ (●) versus  $T$  for **2** after irradiation with visible light measured under zero external field. Solid line is a guide.



**Figure S9**  $\chi_m''$  versus frequency ( $\nu$ ) plots for **1** after irradiation with UV light measured at several temperatures in a zero external dc field and a 3 Oe ac field. Solid lines were fitted by using a generalized Debye model for the determination of the relaxation time ( $\tau$ ). Inset are Arrhenius plots of  $\tau$  estimated from the simulations.



**Figure S10**  $\chi_m''$  versus frequency ( $\nu$ ) plots for **2** after visible light irradiation measured at several temperatures in a zero external dc field and a 3 Oe ac field. Solid lines were fitted by using a generalized Debye model for the determination of the relaxation time ( $\tau$ ). Inset are Arrhenius plots of  $\tau$  estimated from the simulations.



**Figure S11**  $\chi_m''$  versus frequency ( $\nu$ ) plots for **1** after irradiation with UV light measured at several temperatures in a 1 kOe external dc field and a 3 Oe ac field. Solid lines were fitted by using a generalized Debye model for the determination of the relaxation time ( $\tau$ ). Inset are Arrhenius plots for  $\tau$  estimated from the simulations.