

ELECTRONIC SUPPLEMENTARY DATA

for

**Pentacobalt(II) Cluster Based pcu Network
Exhibits Both Magnetic Slow-Relaxation
and Hysteresis Behaviour**

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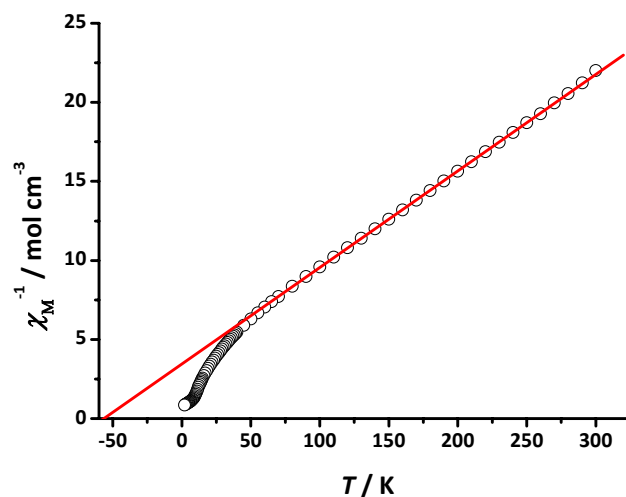


Fig. S1. Plots of χ_M^{-1} versus temperature for **1**.

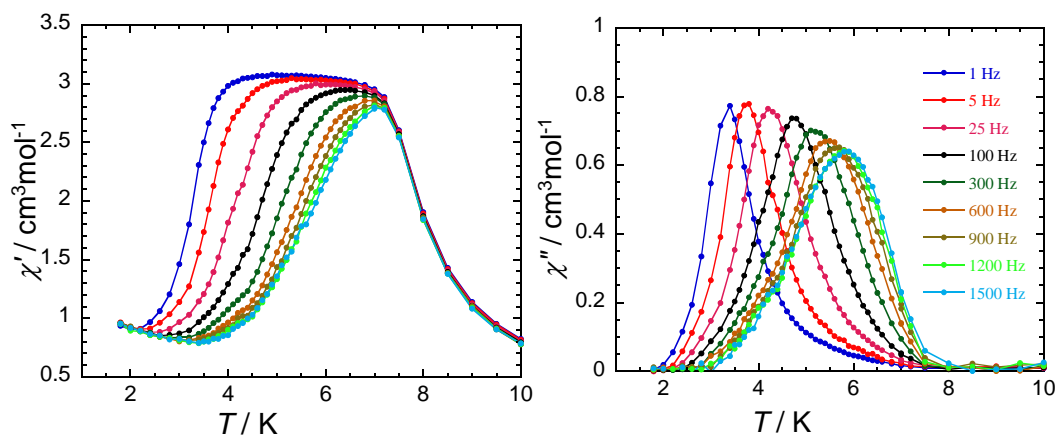


Fig. S2. The zero dc field of $\chi'(T)$ (a) and $\chi''(T)$ (b) plots of **1** at indicated frequencies in 5 Oe oscillating ac field.

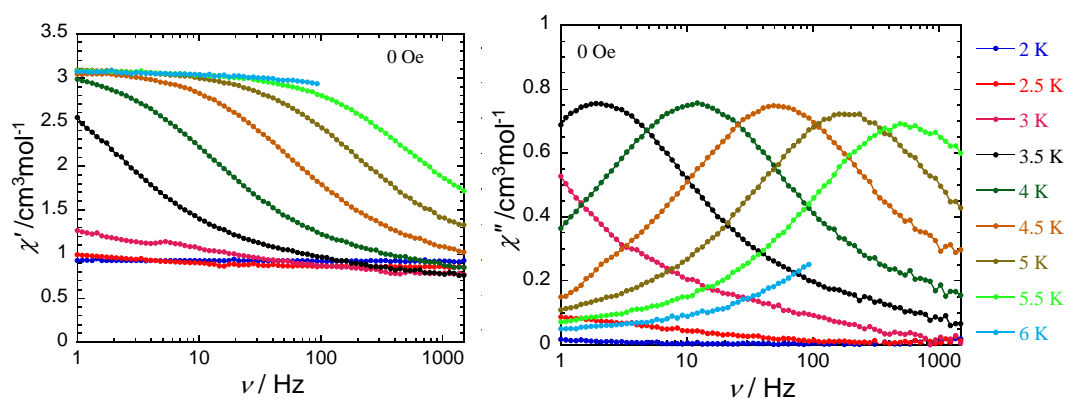


Fig. S3. The isothermal $\chi'(\nu)$ (c) and $\chi''(\nu)$ (d) plots of **1** at indicated temperatures.

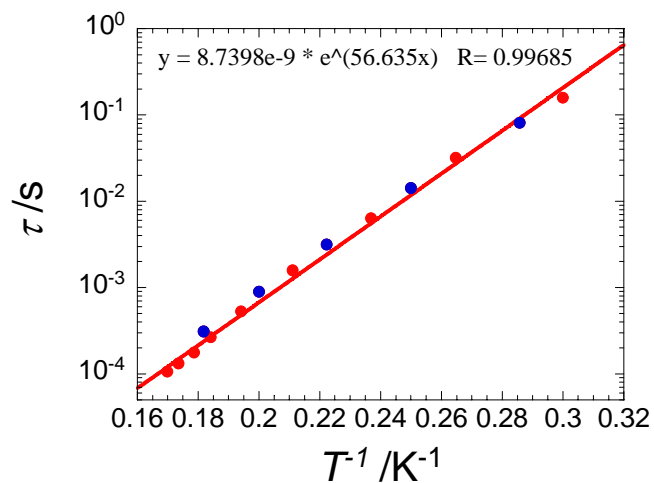


Fig. S4. The logarithm of τ vs T^{-1} plot (e) obtained from $\chi''(T)$ (red dots) and $\chi''(\nu)$ (blue dots); Linear fitted by Arrhenius law with the energy barrier of 56.635 K.

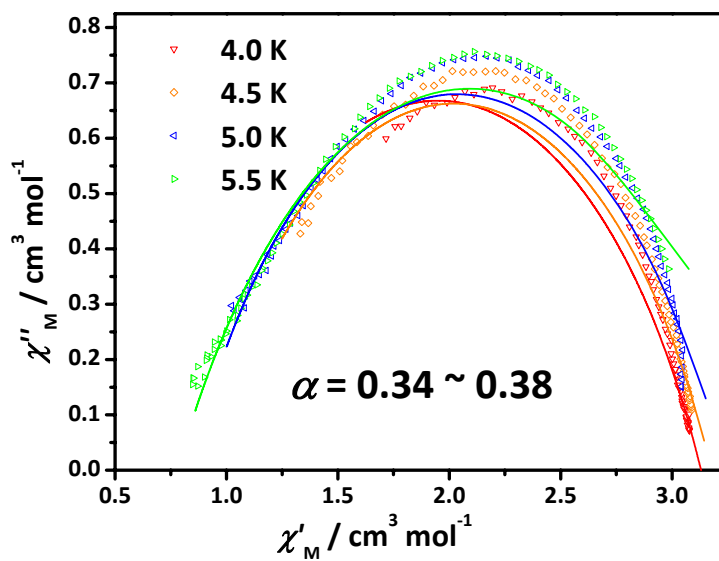


Fig. S5. The Cole-Cole plots and the fitting curves (solid lines).

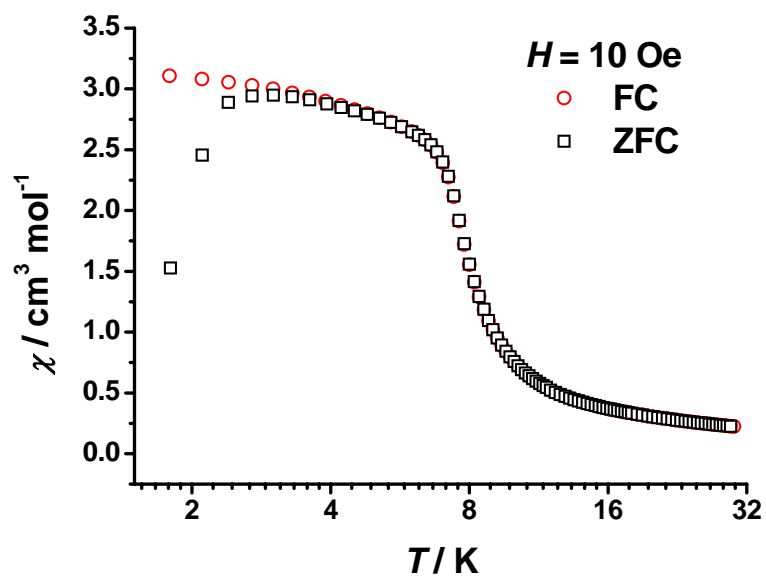


Fig. S6. FCM and ZFCM data collected in an applied field of 10 Oe of **1**.

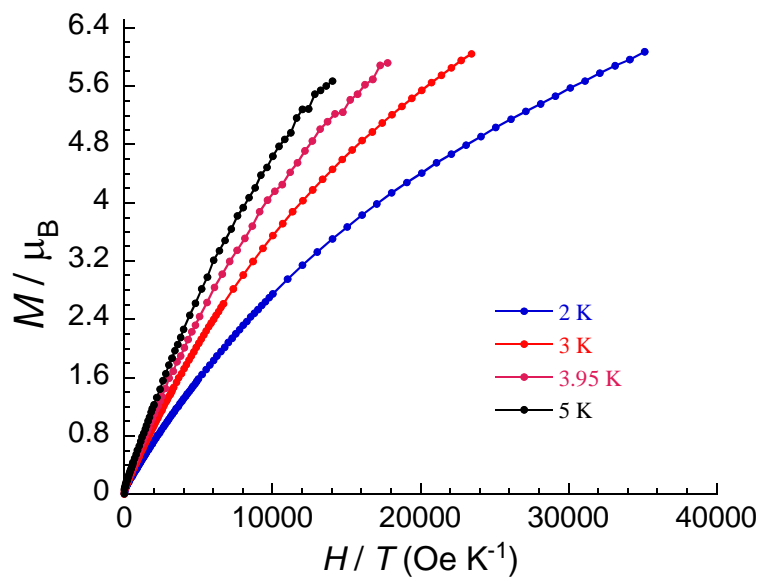


Fig. S7. The M vs H/T plots at indicated temperatures.

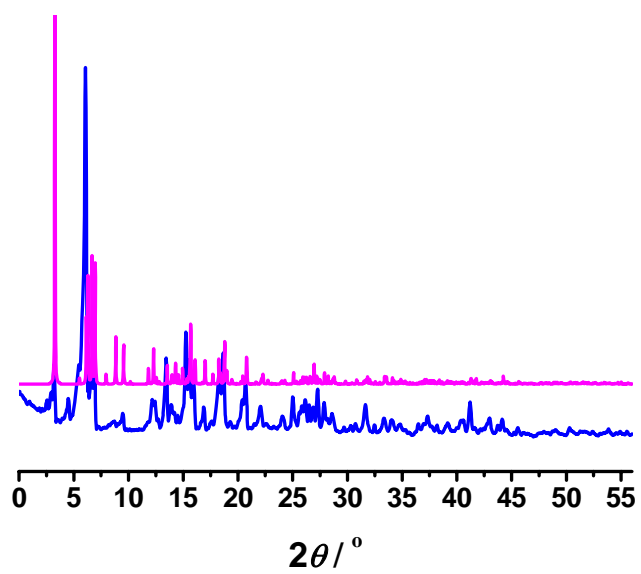


Fig. S8. Simulated (purple) & experimental (blue) XRPD data for **1**.