

SUPPORTING INFORMATION

**1-D hydrogen-bonded organization of hexanuclear {3d-4f-5d} complexes:
Evidence for slow relaxation of the magnetization for
[{L^{Me2}Ni(H₂O)Ln(H₂O)_{4.5}}₂{W(CN)₈}₂] with Ln = Tb and Dy**

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Table S1. Results of the SHAPE analysis for the {W(CN)₈} cores in compounds **2**.

Figure S1. Frequency dependence of the imaginary component, χ_M'' , of the ac-susceptibility for [{L^{Me2}Ni(H₂O)Tb(H₂O)_{4.5}}₂{W(CN)₈}₂] **2** measured in H_{ac} = 3 Oe in the absence of static field.

Figure S2. Field dependence of the imaginary component, χ_M'' , of the ac-susceptibility for [{L^{Me2}Ni(H₂O)Tb(H₂O)_{4.5}}₂{W(CN)₈}₂] **2** measured in H_{ac} = 3 Oe with frequency 100 Hz.

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Table S1. Results of the SHAPE¹ analysis for the {W(CN)₈} cores in compounds **2**.

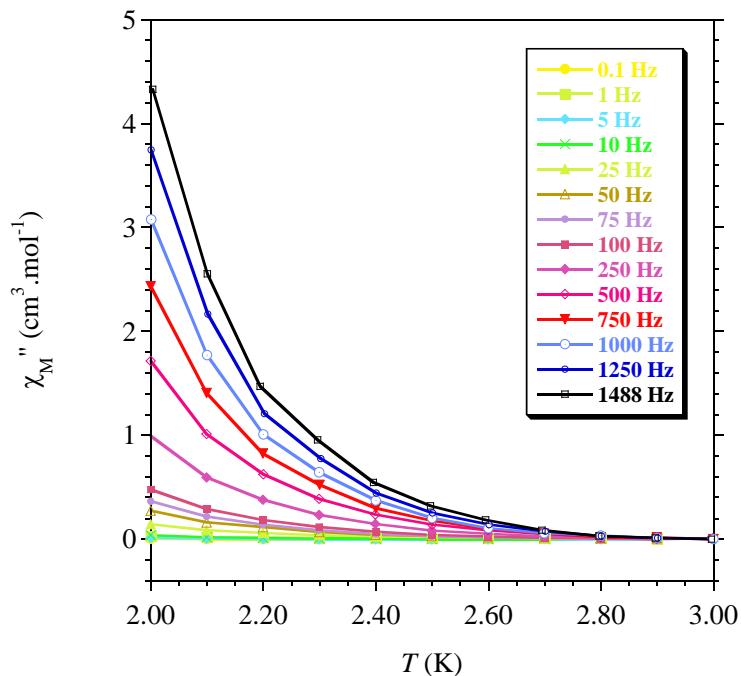
[M(CN) ₈]	(SAPR-8) ^a	(DD-8) ^a	(JBTP-8) ^a	(SBTP-8) ^a
W1	0.81413	1.12031	1.76658	24.92672
W2	0.13741	2.49157	2.86591	24.30476

^a SAPR-8: *D4d*, Square antiprism; DD-8: *D2d*, Triangular dodecahedron; JBTP-8: *C2*, Biaugmented trigonal prism J50; SBTP-8: *C2v*, Spherical biaugmented trigonal prism.

- ¹. Llunell, M.; Casanova, D.; Cirera, J.; Bofill, J. M.; Alemany, P.; Alvarez, S.; Pinsky, M.; Avnir, D. *SHAPE: Continuous shape measures of polygonal and polyhedral molecular fragments*, 1.1b; University of Barcelona: Barcelona, 2005. Casanova, D.; Llunell, M.; Alemany, P.; Alvarez, S., *Chem. Eur. J.* **2005**, 11, 1479-94.

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Figure S1. Frequency dependence of the imaginary component, χ_M'' , of the ac-susceptibility for $\left[\{L^{Me^2}Ni(H_2O)Tb(H_2O)_{4.5}\}_2\{W(CN)_8\}_2\right] \textbf{2}$ measured in $H_{ac} = 3$ Oe in the absence of static field.



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Figure S2. Field dependence of the imaginary component, χ_M'' , of the ac-susceptibility for $[\{L^{Me^2}Ni(H_2O)Tb(H_2O)_{4.5}\}_2\{W(CN)_8\}_2]$ **2** measured in $H_{ac} = 3$ Oe with frequency 100 Hz.

