

Supporting information for:

A Distinct Magnetic Anisotropy Enhancement in Mononuclear Dysprosium-Sulfur Complexes by Controlling the Dy-Ligand Bond Length

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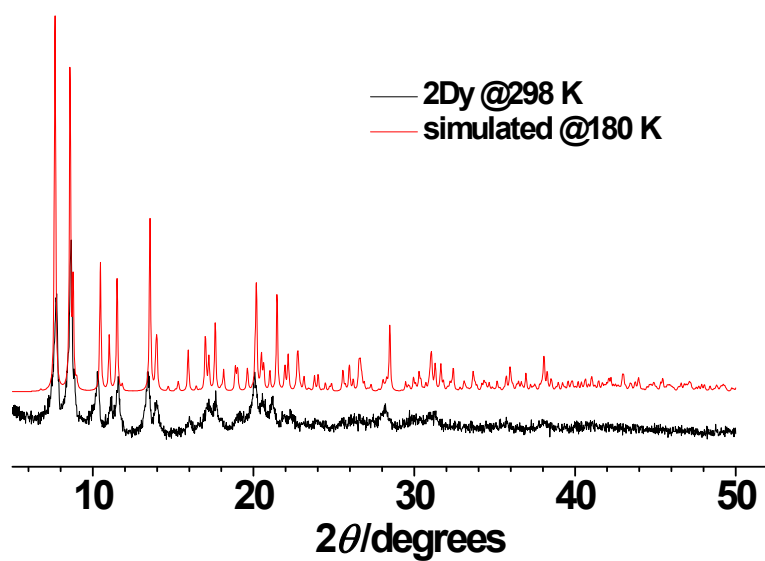
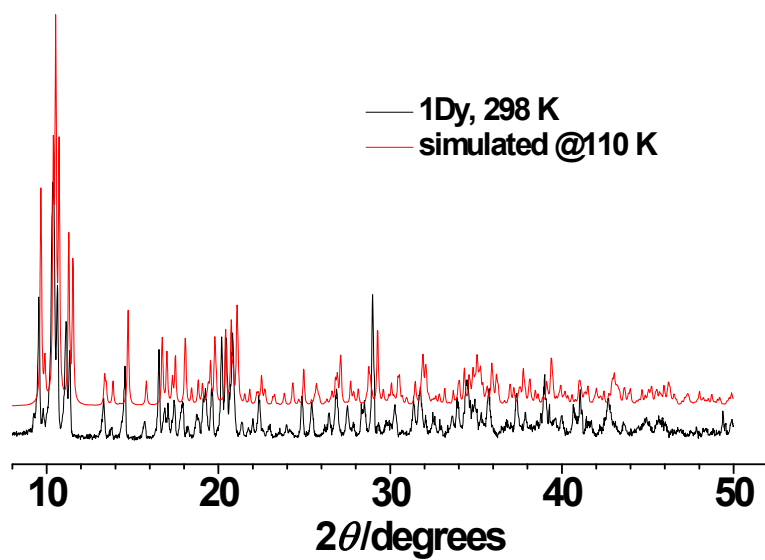


Fig. S1. Powder X-ray diffraction patterns of 1Dy and 2Dy.

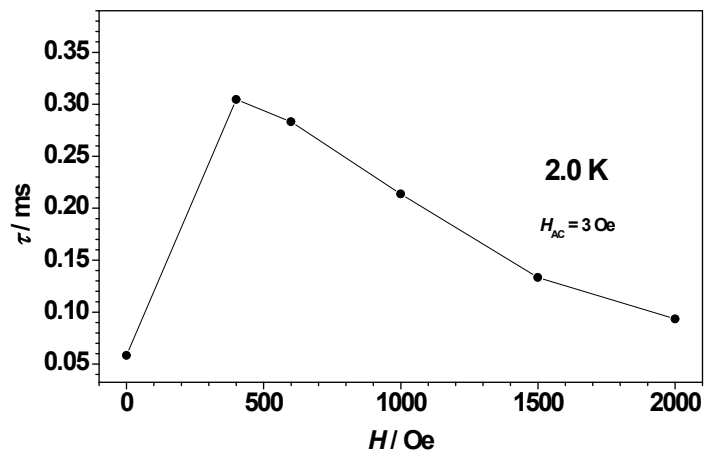


Fig. S2. Temperature and dc field dependence of relaxation time of **1Dy**. The dc field of 400 Oe is the optimum field.

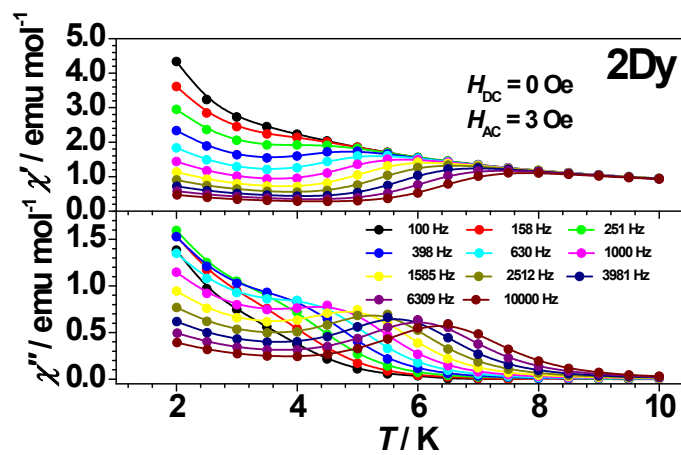


Fig. S3. Temperature dependence of ac magnetic susceptibility properties of **2Dy** complex without a dc field.

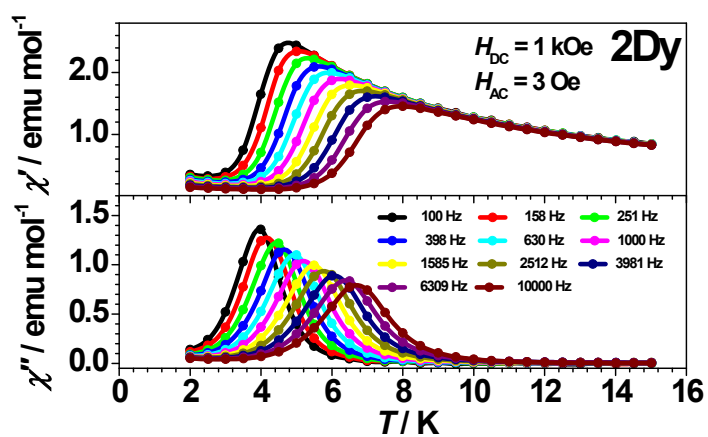


Fig. S4. Temperature dependence of ac magnetic susceptibility properties of **2Dy** complex with a dc field of 1 kOe.

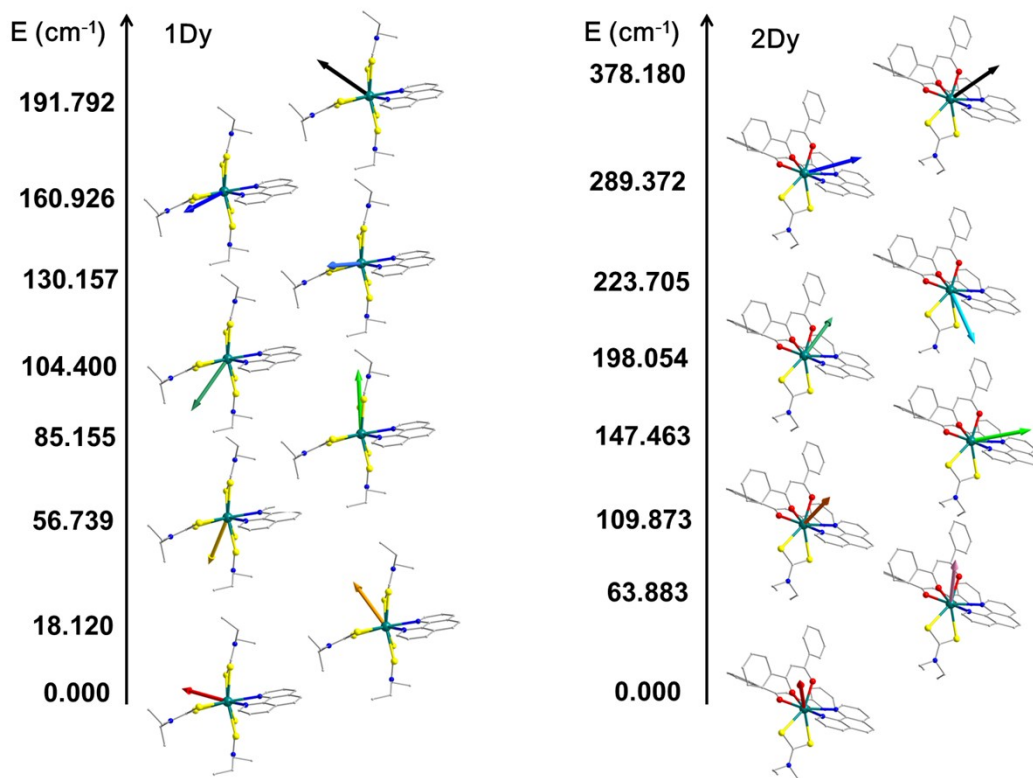


Fig. S5. The orientations (arrows) of g_z tensors for eight lowest Kramer's doublets for **1Dy** and **2Dy**. Vertical coordinates are the energies (cm^{-1}) for all the excited Kramer's doublets.