

## Supporting Information

### **Fine-tuning of lanthanide – monocarboxylate coordination networks through ligand decoration**

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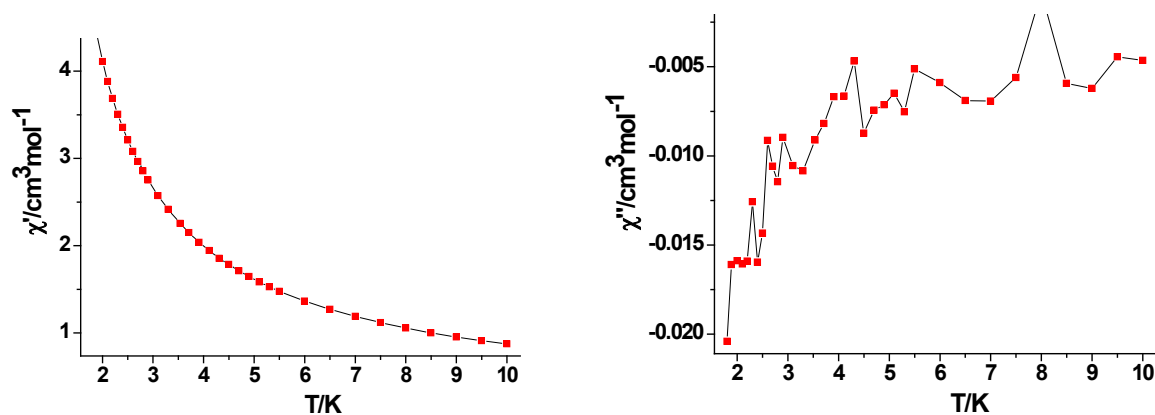
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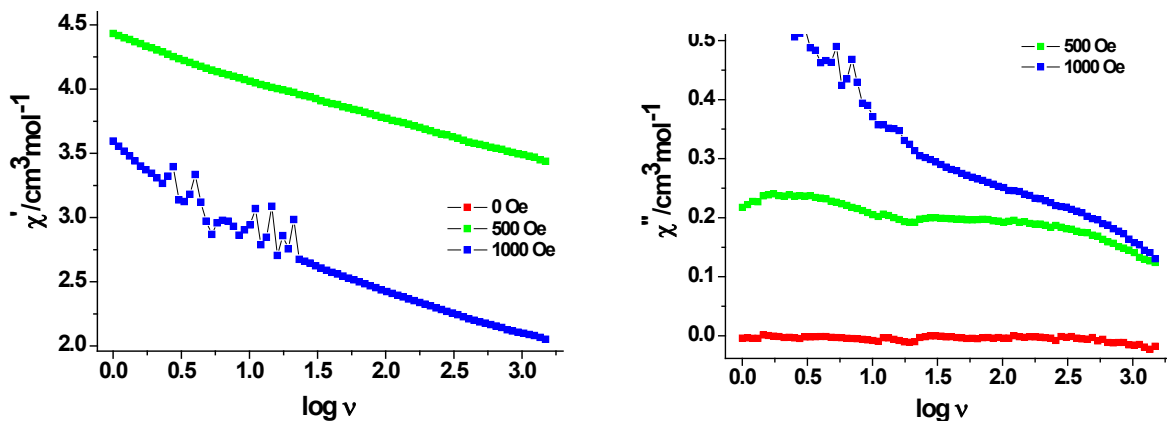
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**Table S1** Unit cell parameters for **4 – 8**

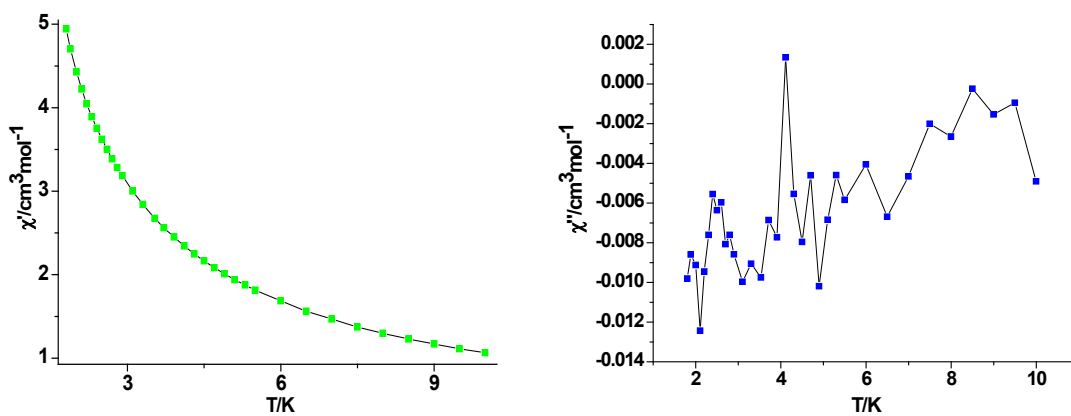
Cell parameters	<b>6</b>	<b>7</b>	<b>4</b>	<b>5</b>	<b>8</b>
$a(\text{Å})$	16.1563(12)	16.1132(10)	16.5467(15)	16.1249(3)	16.8910(18)
$b(\text{Å})$	16.2320(12)	16.1132(10)	16.3245(15)	16.1249(3)	16.8910(18)
$c(\text{Å})$	19.3560(13)	19.1089(12)	19.2078(19)	19.5060(9)	19.5121(18)
$\alpha(^{\circ})$	90	90	90	90	90
$\beta(^{\circ})$	90	90	90	90	90
$\gamma(^{\circ})$	90	90	90	90	90



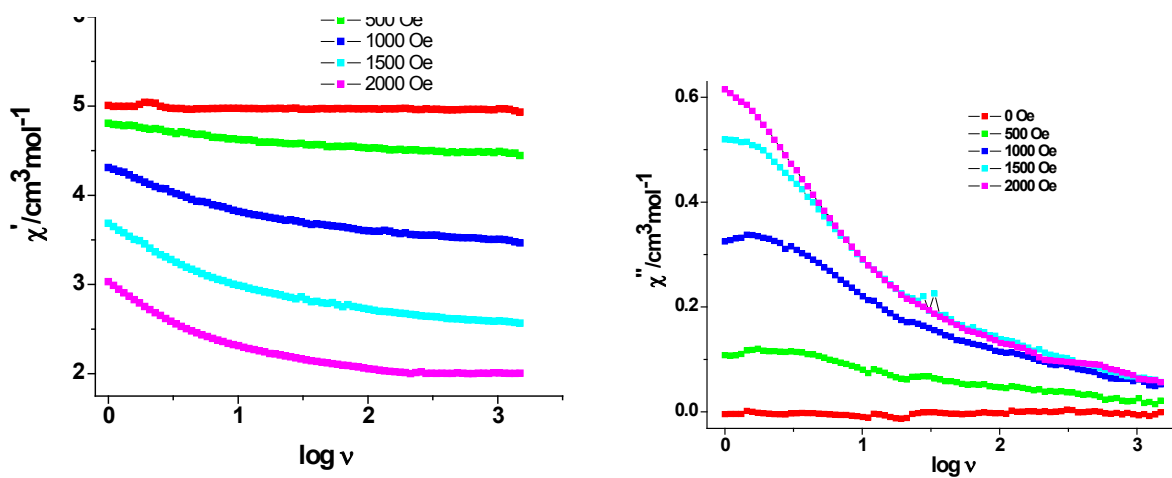
**Fig. S1** Temperature dependence of the in-phase (left) and out-of-phase (right) components of the ac magnetic susceptibility, for **9** under zero dc field.



**Fig. S2** Frequency dependence at 1.8 K of the in-phase (left) and the out-of-phase (right) ac susceptibility components at different dc fields for **9**.



**Fig. S3** Temperature dependence of the in-phase (left) and out-of-phase (right) components of the ac magnetic susceptibility, for **10** under zero dc field.



**Fig.S4** Frequency dependence at 1.8 K of the in-phase (left) and the out-of-phase (right) ac susceptibility components at different dc fields for **10**.