

# Supplementary Materials

## Steric, activation method and solvent effects on the structure of paddlewheel diruthenium complexes

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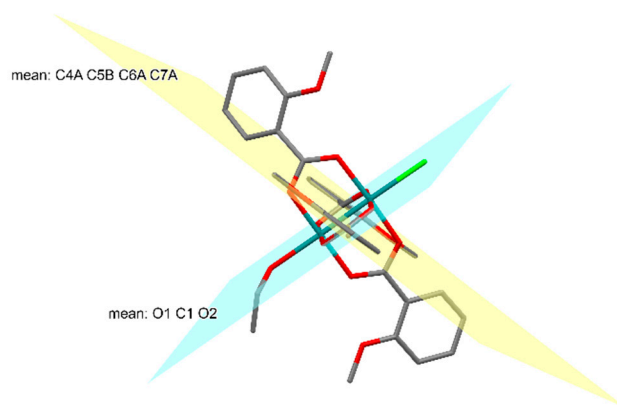
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### X-RAY DATA

**Table S1.**  $\theta$  angles between carboxylate plane and aromatic ring plane in compounds **1b** and **1c**.

<b>1b</b>		<b>1c</b>	
Ru1-Ru2	12.73°	Ru1-Ru1	25.96°
	29.93°		80.66°
	69.13°	Ru2-Ru2	15.51°
	71.73°		25.46°

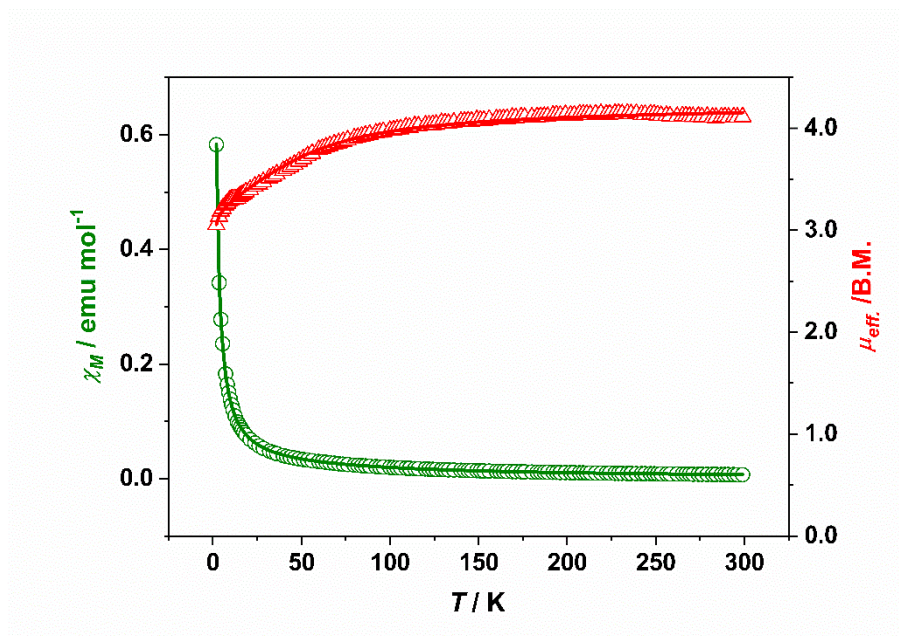
**Figure S1.**  $\theta$  angles between carboxylate plane and aromatic ring plane in **1b**.



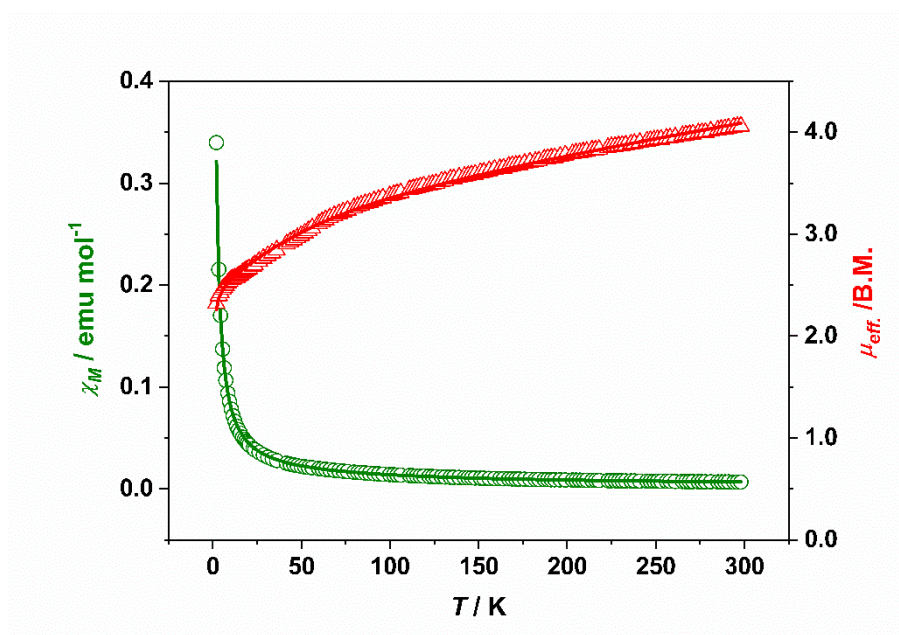
**Table S2.** Angles between aromatic ring plane and methoxy substituent plane in compounds **1b** and **1c**.

<b>1b</b>		<b>1c</b>	
Ru1-Ru2	1.80°	Ru1-Ru1	3.59°
	2.29°		10.59°
	2.34°	Ru2-Ru2	4.64°
	12.03°		7.31°

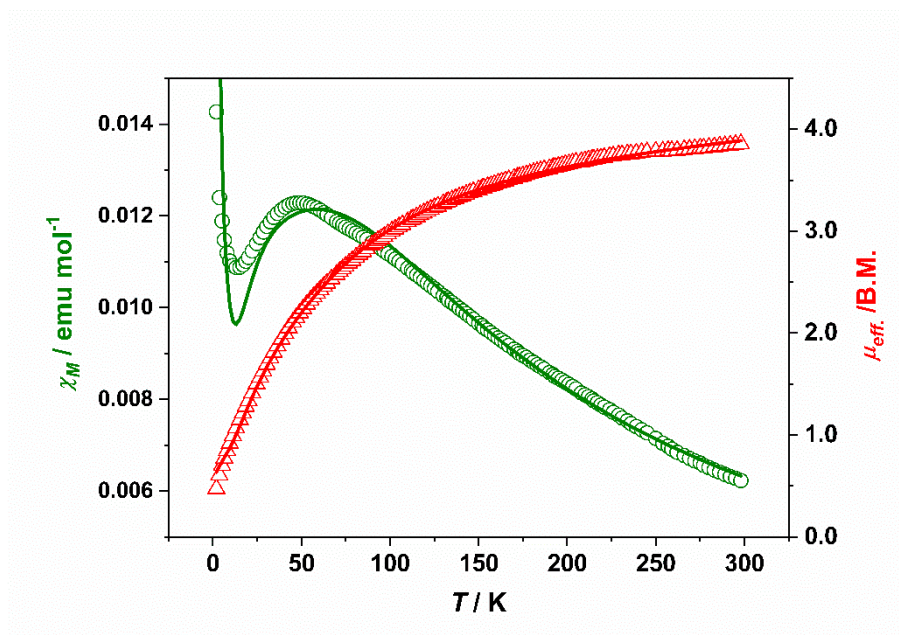
## MAGNETIC PROPERTIES



**Figure S2.** Temperature dependence of the molar susceptibility (o) and magnetic moment ( $\Delta$ ) for compound  $[\text{Ru}_2\text{Cl}(\mu\text{-O}_2\text{CC}_6\text{H}_4\text{-}m\text{-OMe})_4]_n$  (**2**). Solid lines are the product of a least-square fit of the experimental data to the model indicated in the text.



**Figure S3.** Temperature dependence of the molar susceptibility (o) and magnetic moment ( $\Delta$ ) for compound  $[\text{Ru}_2\text{Cl}(\mu\text{-O}_2\text{CC}_6\text{H}_4\text{-}p\text{-OMe})_4]_n$  (**3**). Solid lines are the product of a least-square fit of the experimental data to the model indicated in the text.



**Figure S4.** Temperature dependence of the molar susceptibility (o) and magnetic moment ( $\Delta$ ) for compound  $[\text{Ru}_2\text{Cl}(\mu\text{-O}_2\text{CC}_6\text{H}_4\text{-}o\text{-OMe})_4]_n$  (**1a**). Solid lines are the product of a least-square fit of the experimental data to the model indicated in the text and considering a Ru(III) monomer as impurity.