

Supplementary Material

for

Synthesis, Crystal Structure and Magnetic Properties of Amidate and Carboxylate Dimers of Ruthenium

by

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Table of contents

Part 1. Single Crystal X-ray Crystallography.....

Part 2. Magnetic properties.....

Part 1. Single Crystal X-ray Crystallography

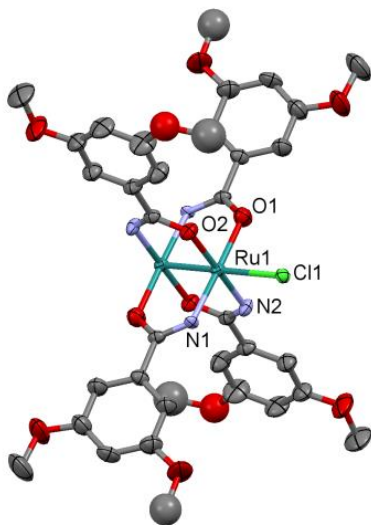


Figure S1. Representation of the dimeric unit in the structure of $[\text{Ru}_2\text{Cl}(\mu\text{-HNOCC}_6\text{H}_3\text{-3,5-(OMe)}_2)_4]$, 1. Ellipsoids are drawn at 50% probability level. Hydrogen atoms are omitted for clarity

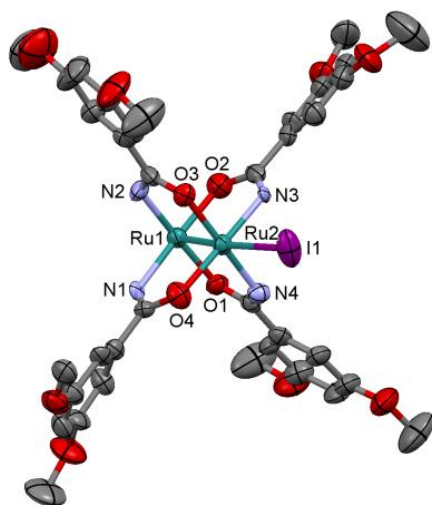


Figure S2. Representation of the dimeric unit in the structure of $[\text{Ru}_2\text{I}(\mu\text{-HNOCC}_6\text{H}_3\text{-3,5-(OMe)}_2)_4]$, 3. Ellipsoids are drawn at 50% probability level. Hydrogen atoms are omitted for clarity

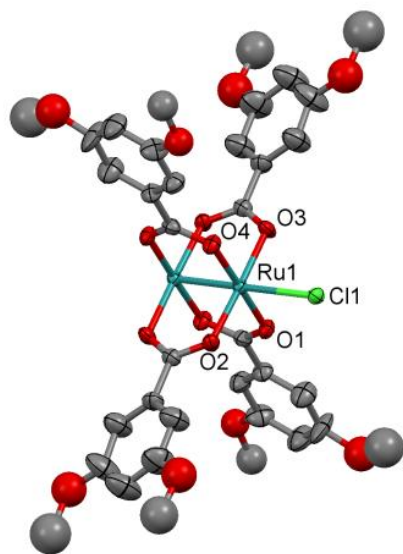


Figure S3. Representation of the dimeric unit in the structure of $[\text{Ru}_2\text{I}(\mu\text{-HNOCC}_6\text{H}_3\text{-3,5-(OMe)}_2)_4]$, **4**. Ellipsoids are drawn at 50% probability level. Hydrogen atoms are omitted for clarity

Part 2. Magnetic properties

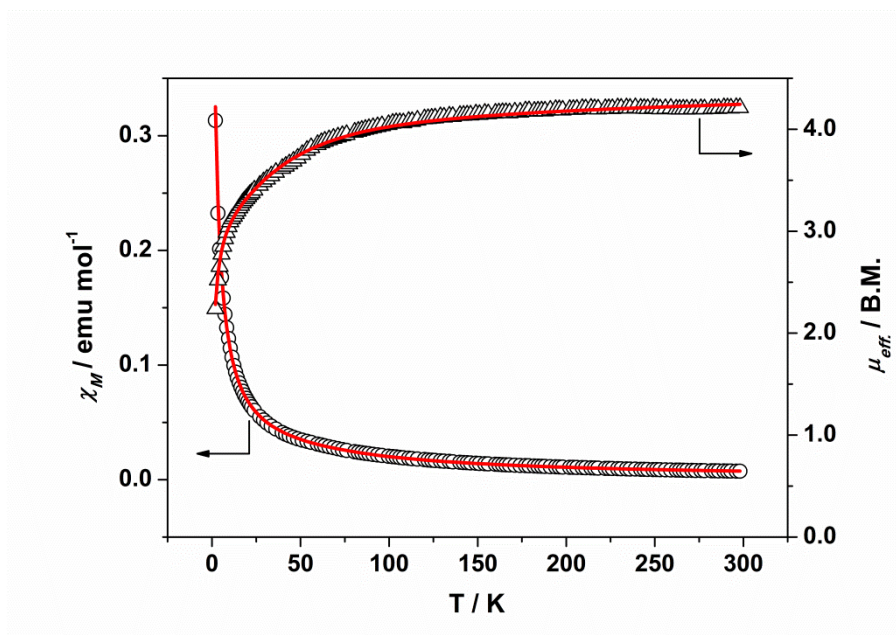


Fig. S4. Temperature dependence of the molar magnetic susceptibility χ_M (circles) and μ_{eff} (triangles) for complex 2. Solid lines are the best fit to the model indicated in the text.

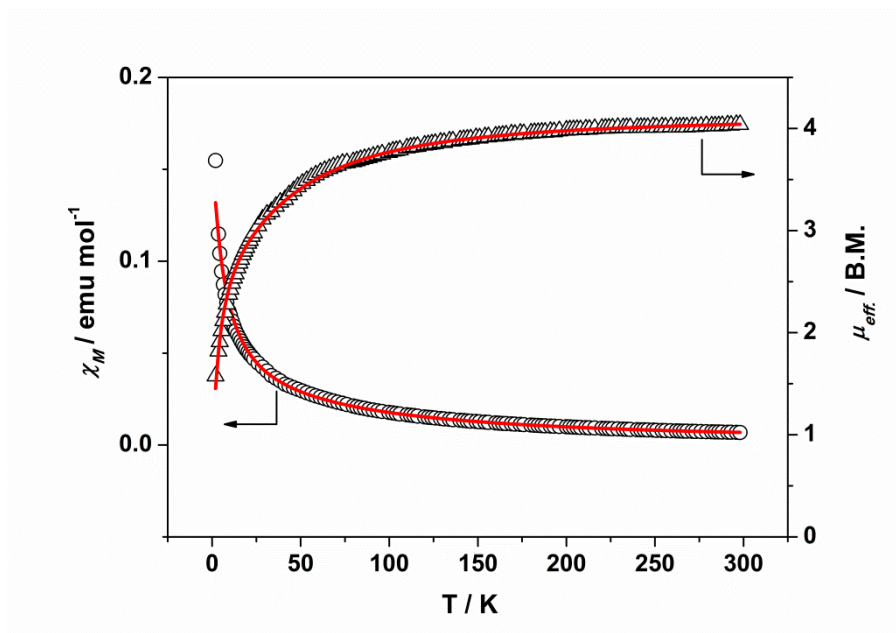


Fig. S5. Temperature dependence of the molar magnetic susceptibility χ_M (circles) and μ_{eff} (triangles) for complex 3. Solid lines are the best fit to the model indicated in the text.

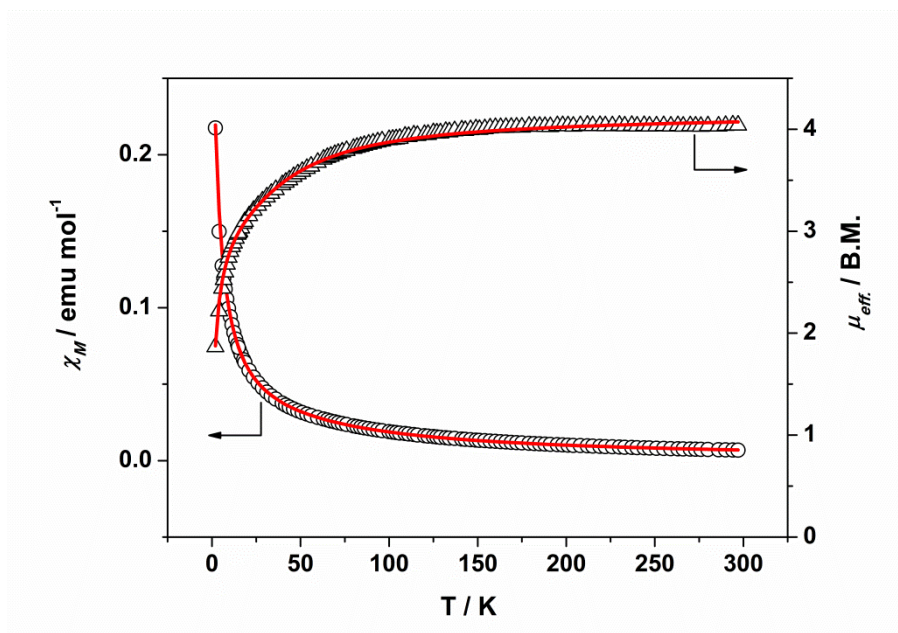


Fig. S6. Temperature dependence of the molar magnetic susceptibility χ_M (circles) and μ_{eff} (triangles) for complex 4. Solid lines are the best fit to the model indicated in the text.

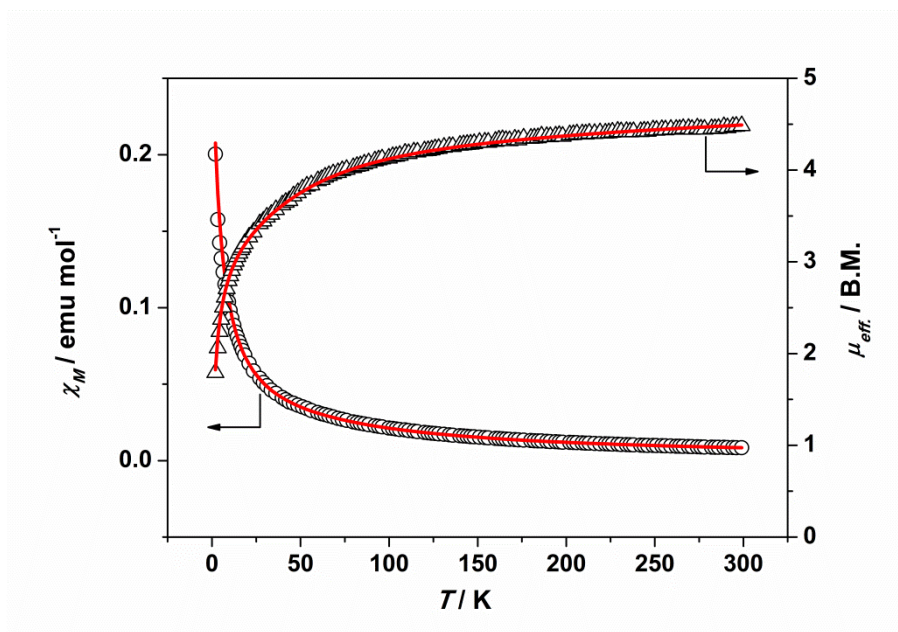


Fig. S7. Temperature dependence of the molar magnetic susceptibility χ_M (circles) and μ_{eff} (triangles) for complex 5. Solid lines are the best fit to the model indicated in the text.

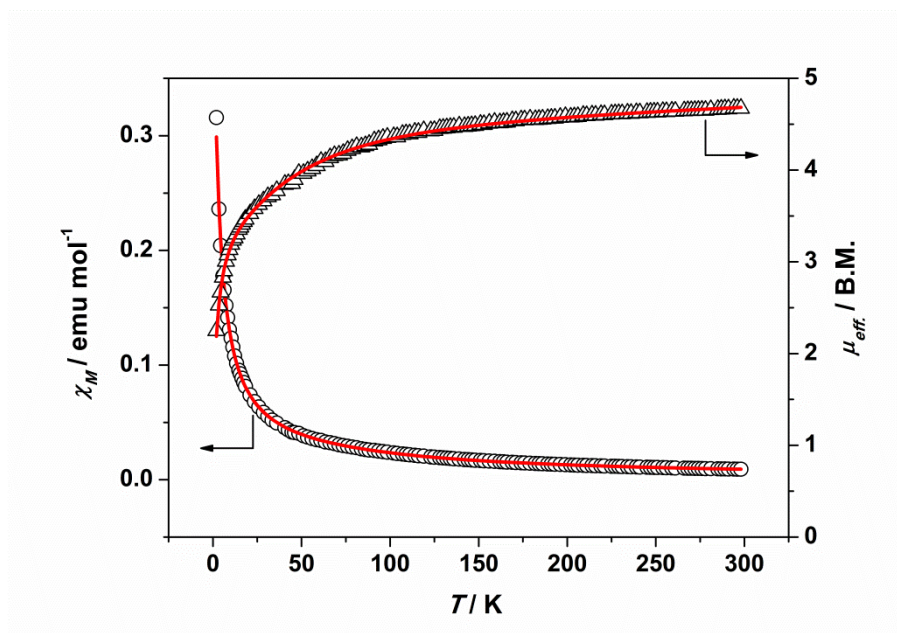


Fig. S8. Temperature dependence of the molar magnetic susceptibility χ_M (circles) and μ_{eff} (triangles) for complex 6. Solid lines are the best fit to the model indicated in the text.