

Supporting Information

A Novel Heptatungstovanadate Fragment Stabilized by Organo-Ruthenium Group: $[\text{HVW}_7\text{O}_{28}\text{Ru}(\text{dmsO})_3]^{6-}$

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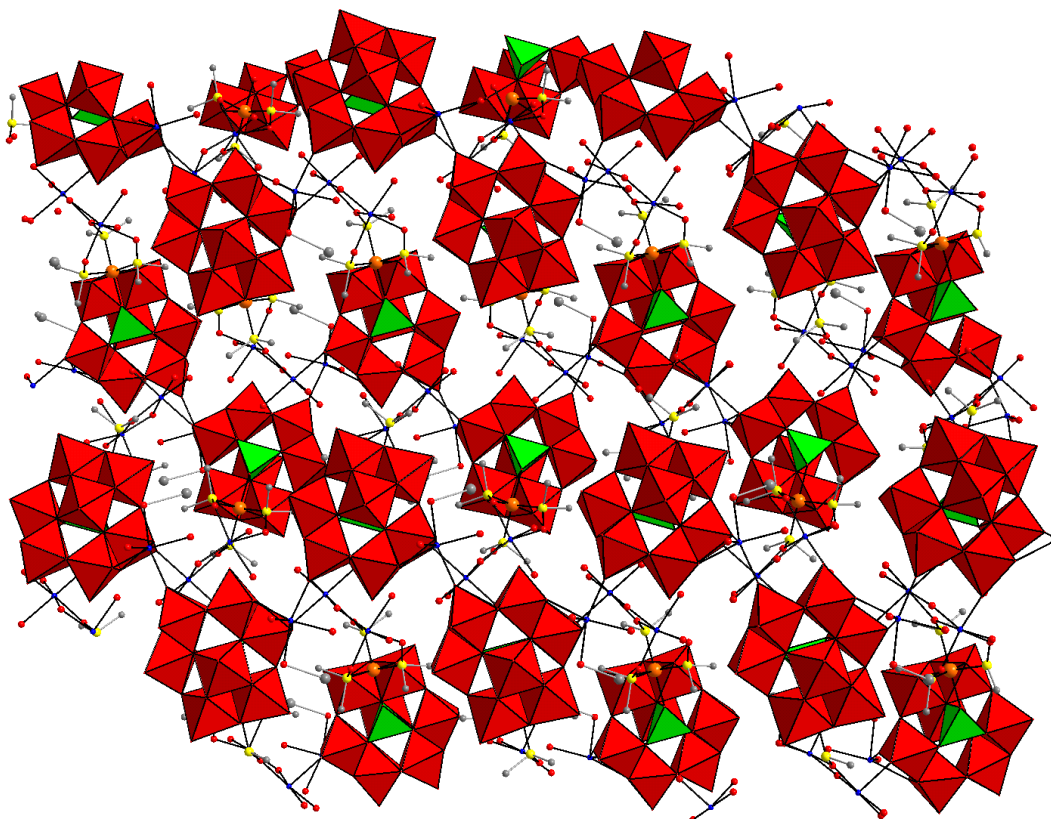


Figure S1. Combined polyhedral/ball and stick representation of the 3D structure of compound **1a**. The balls represent ruthenium (orange), sulfur (yellow), oxygen (red), carbon (gray) and hydrogen (cyan). The VO_4 tetrahedron is green, WO_6 octahedra are red. Hydrogen atoms are omitted for clarity.

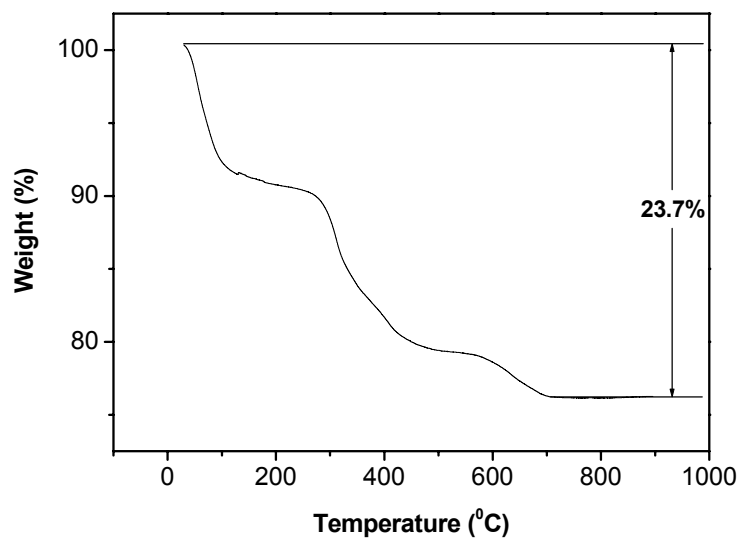


Figure S2. TG curve of compound **1a**.

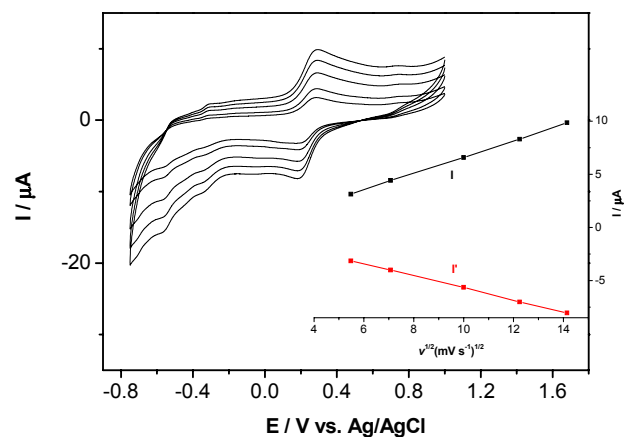


Figure S3. CVs of 3.0 mM **1a** in 0.5 M Na₂SO₄ + H₂SO₄ at pH 3 at scan rates of 30, 50, 100, 150, and 200 mV s⁻¹. The inset shows the relationship of the square roots of the scan rates vs. the oxidation peak currents of I and reduction peak currents of I'.

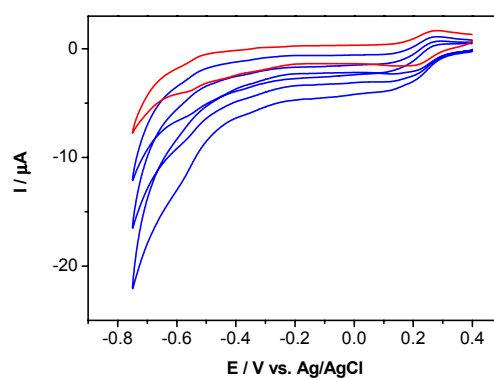


Figure S4. CVs of 3.0 mM **1a** in 0.5 M Na₂SO₄ + H₂SO₄ (pH 3) solutions before (red curve) and after (blue curves) addition of NO₂⁻ at various concentrations: 0.6, 2.3 and 6.1 mM. Scan rate: 10 mV s⁻¹.

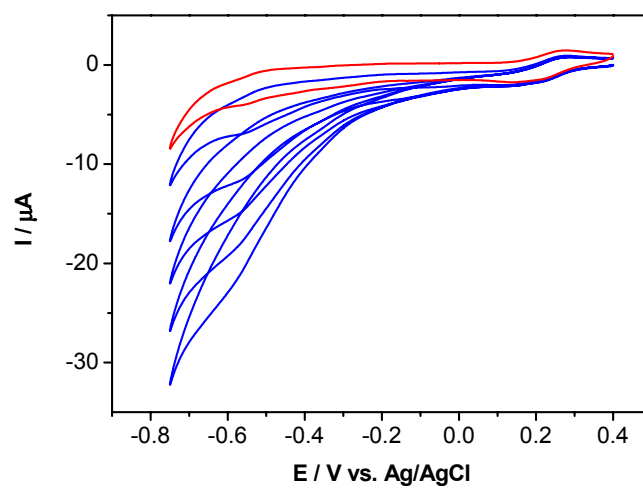


Figure S5. CVs of 3.0 mM **1a** in 0.5 M $\text{Na}_2\text{SO}_4 + \text{H}_2\text{SO}_4$ (pH 3) solutions before (red curve) and after (blue curves) addition of H_2O_2 at various concentrations: 0.4, 1.4, 2.9, 5.2 and 8.6 mM. Scan rate: 10 mV s^{-1} .