

Oximated Ruthenium Tris-bipyridyl Complex: Synthesis and Luminescent Response Specifically for ClO⁻ in Water Containing Multiple Ions

Supporting Information

Various Spectra

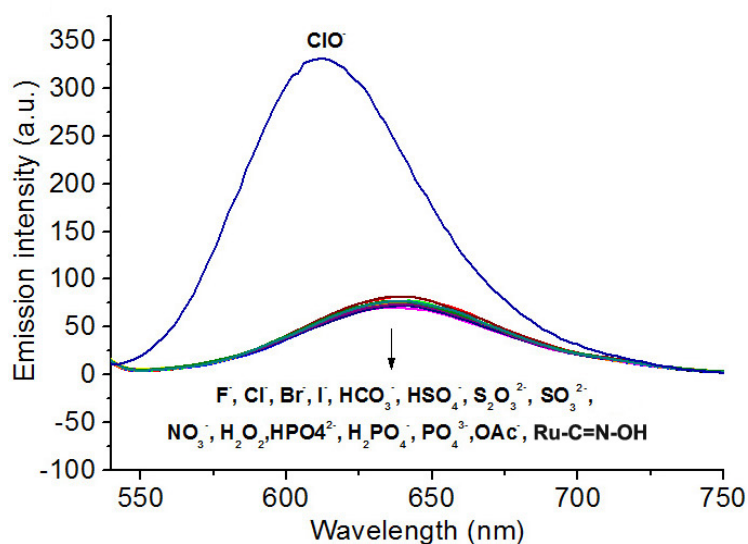


Figure S-1. Luminescence emission spectrum of Ru-C=N-OH (10 μ M) upon addition of 20 equiv of various metal ions (F⁻, Cl⁻, Br⁻, I⁻, HCO₃⁻, HSO₄⁻, H₂PO₄⁻, S₂O₃²⁻, SO₃²⁻, NO₃⁻, H₂O₂, HPO₄²⁻, H₂PO₄⁻, PO₄³⁻, OAc⁻, Ru-C=N-OH) in water.

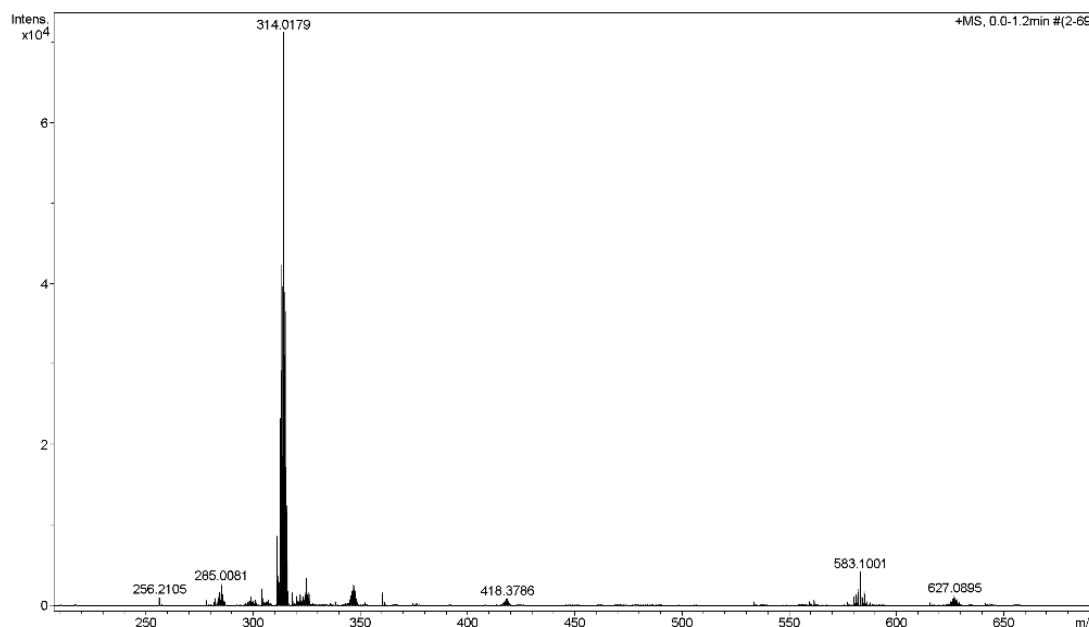


Figure S-2. TOF-MS spectrum of isolated complex from the reaction of Ru-C=N-OH and ClO⁻. The peaks at $m/z = 314.0179$ correspond to $[M-2PF_6^-]^{2+}$ (calc. 314.0579).

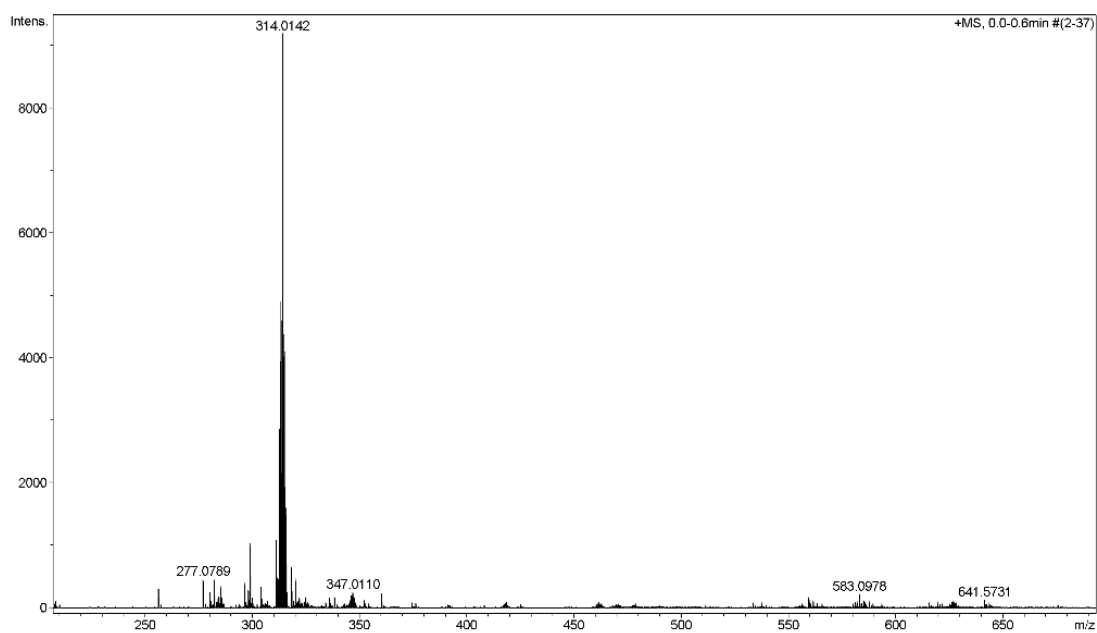


Figure S-3. TOF-MS spectrum of Ru-COOH. The peaks at $m/z = 314.0142$ correspond to $[M-2PF_6^-]^{2+}$ (calc.314.0579).

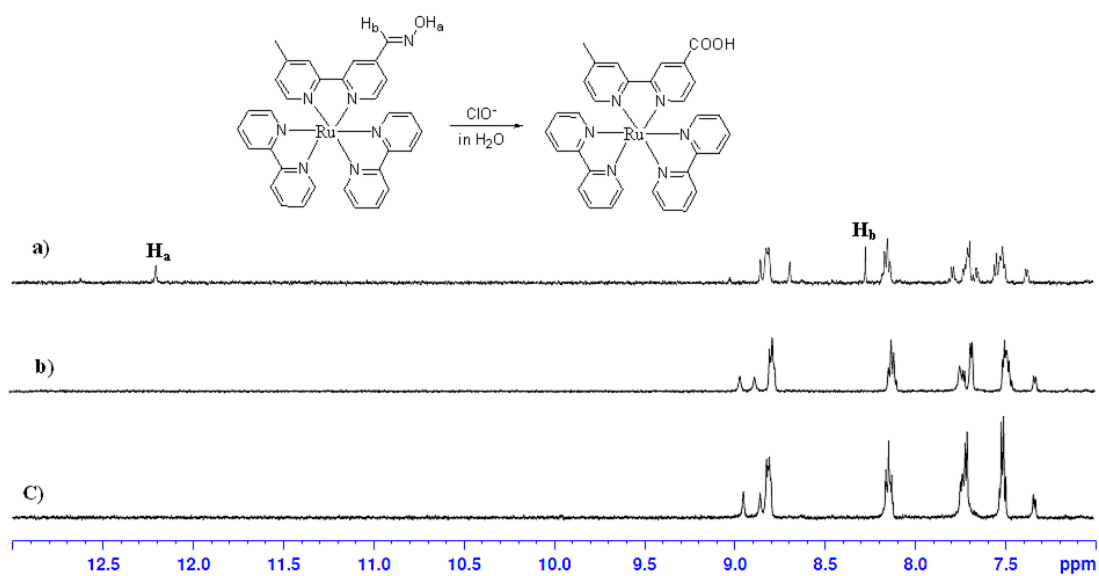


Figure S-4. 1H NMR spectra in d_6 -DMSO solutions. (a) Ru-C=N-OH; (b) Isolated product from the reaction of Ru-C=N-OH with ClO^- ; (c) Ru-CO₂H.

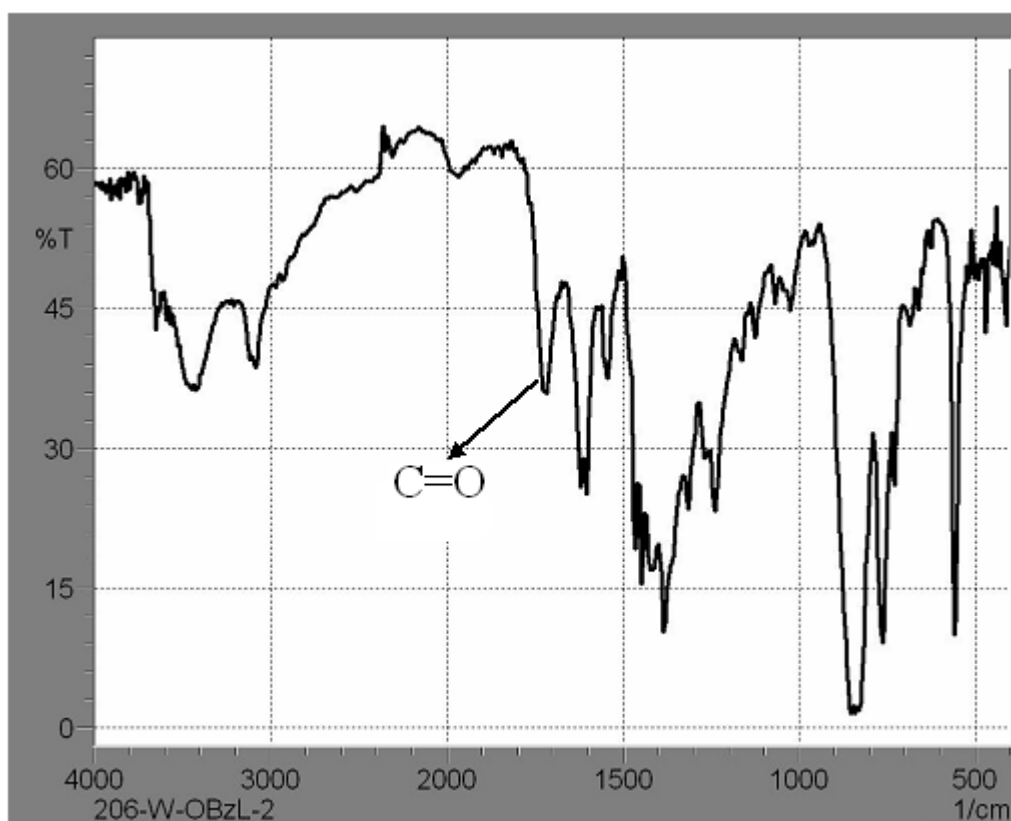


Figure S-5. IR spectrum of isolated complex from the reaction of Ru-C=N-OH and ClO⁻.

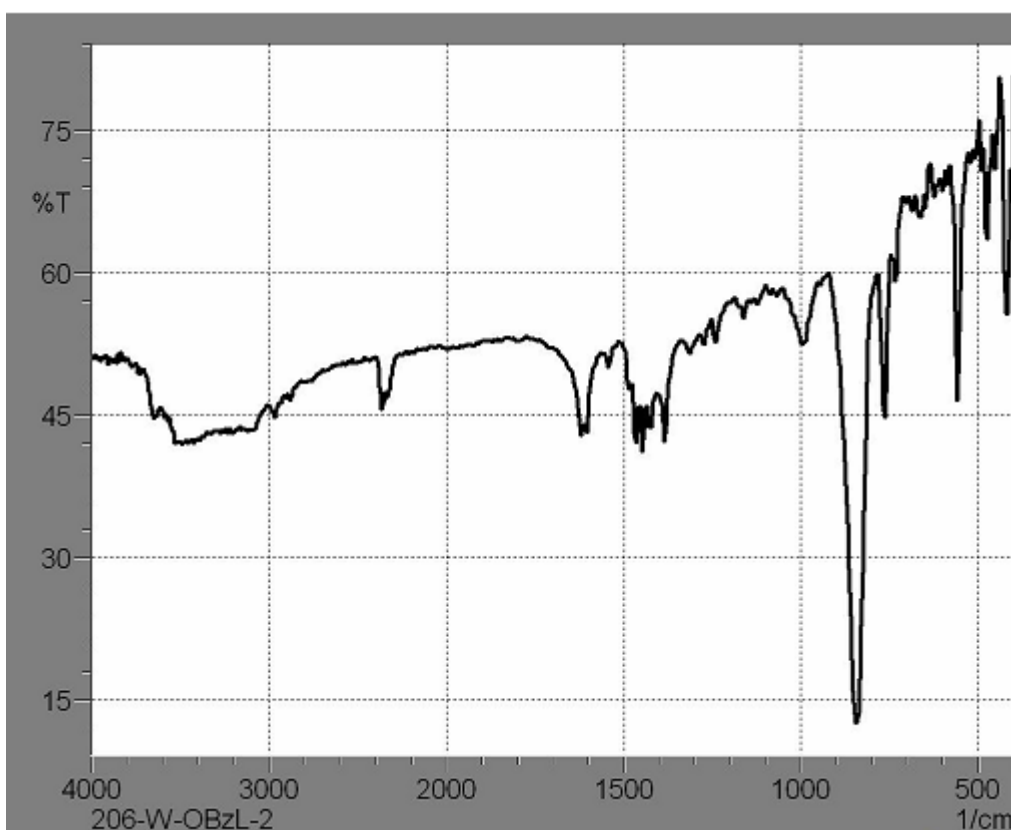


Figure S-6. IR spectrum of Ru-C=N-OH.