

# Synthesis, Characterisation, Structure, and Magnetic Properties of $[\text{Ni}\{\text{H}_2\text{NCH}(\text{CH}_3)\text{CH}_2\text{NH}_2\}_3][\text{Fe}(\text{CN})_5\text{NO}]\cdot\text{H}_2\text{O}$

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The complex  $[\text{Ni}(\text{pn})_3][\text{Fe}(\text{CN})_5\text{NO}]\cdot\text{H}_2\text{O}$  (**1**) was synthesised by the reaction of  $[\text{Ni}(\text{pn})_3]\text{Cl}_2$  (pn = racemic propane-1,2-diamine) with  $\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}]\cdot 2\text{H}_2\text{O}$  in aqueous solution and has been characterised by IR and Mössbauer spectroscopy and magnetic studies. Single crystal structure analysis revealed octahedrally coordinate cations  $[\text{Ni}(\text{pn})_3]^{2+}$  and anions  $[\text{Fe}(\text{CN})_5\text{NO}]^{2-}$ .

*Key words:* Nitroprusside, Crystal Structure, Nickel Complex, Mössbauer Spectroscopy