

# Structural Influence of Hydrogen Bonding and $\pi$ -Stacking in *trans*-Diazido-tetrakis(pyrazole)nickel(II) and *trans*-Diazido-tetrakis(3-methylpyrazole)nickel(II)

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Nickel Complexes,  $\pi$ -Stacking, Hydrogen Bonding

The molecular nickel complexes *trans*-diazido-tetrakis(pyrazole)nickel(II) and *trans*-diazido-tetrakis(3-methylpyrazole)nickel(II) feature terminal monohapto-bound azide ligands. The pyrazole (pyr) ring planes are aligned along the  $N_{\text{azide}}\text{-Ni-}N_{\text{azide}}$  axis by intramolecular  $\text{N-H}\cdots N_{\text{azide}}$  bonds. The crystal packing is controlled by  $\pi$ -stacking between both pyrazole rings and azide ligands,  $\text{N-H}\cdots N_{\text{azide}}$  hydrogen bonds, and intermolecular  $\text{N-H}\cdots\pi_{\text{pyr}}$  and  $\text{C-H}\cdots\text{N}/\pi_{\text{azide}}$  interactions.