

# Koordinationsambidenz des Thiocyanations in Alkalitrithiocyanatomanganat(II)-Hydraten

Coordination Ambidence of the Thiocyanate Anion in Alkali Trithiocyanatomanganate(II) Hydrates

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Alkali Thiocyanatomanganate(II) Hydrates, Crystal Structure, Coordination Ambidence

Alkali metal trithiocyanatomanganate(II) hydrates have been prepared and characterized by several analytical methods. The structures of  $\text{NH}_4[\text{Mn}(\text{NCS})_3(\text{H}_2\text{O})]$  (**1a**),  $\text{K}[\text{Mn}(\text{NCS})_3(\text{H}_2\text{O})]$  (**1b**) and  $\text{Na}[\text{Mn}(\text{NCS})_3] \cdot 3 \text{H}_2\text{O}$  (**2**) could be elucidated by X-ray analysis. **1a** and **1b** are isotopic and form a polymeric layer structure which is characterized by the ambident nature of the thiocyanate ligand and binding of the water molecule to the octahedrally coordinated Mn atom. In **2** the complex manganate(II) anions form a layer structure with trigonal symmetry in which each Mn atom is connected with three Mn neighbours by thiocyanate double bridges. The cation partial lattice consists of infinite chains of face-sharing  $[\text{Na}(\text{H}_2\text{O})_6]^+$  octahedra running perpendicular to the anion layers.

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