

Zur Existenz von $[\text{ReNCl}_{4-n}\text{F}_n]^-$ ($n = 1 - 3$) Nitridorhenat(VI)-Gemischtligandkomplexen – Eine EPR-Untersuchung

EPR Evidence of $[\text{ReNCl}_{4-n}\text{F}_n]^-$ ($n = 1 - 3$) Nitridorhenate(VI) Mixed-Ligand Complexes

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Z. Naturforsch. **53 b**, 1183–1187 (1998); eingegangen am 9. Juni 1998

Rhenium Complexes, Nitrido Complexes, Mixed-Ligand Complexes, EPR Data

The formation of mixed-ligand complexes of the type $[\text{Re}^{\text{VI}}\text{NCl}_{4-n}\text{F}_n]^-$ ($n = 1 - 3$) during the reaction of $[\text{Re}^{\text{VI}}\text{NCl}_4]^-$ with $[n-(\text{C}_4\text{H}_9)_4\text{N}]\text{F}$, KF , and HF is reported. Evidence of the individual mixed-ligand compounds is given by their EPR spectral data. In frozen solutions a specific dependence of the EPR data on the composition of the coordination sphere could be detected. This is shown (i) by a nearly linear dependence of g_{\parallel} and $A_{\parallel}^{\text{Re}}$ on the Cl/F-content of the $[\text{Re}^{\text{VI}}\text{NCl}_{4-n}\text{F}_n]^-$ unit (additivity rules) and (ii) by well-resolved ^{19}F hyperfine splittings.

* Sonderdruckanforderungen an Prof. Dr. R. Kirmse.