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TRIFLUOROMETHYLISOCYANIDE  $\text{CF}_3\text{NC}$ , A VERY STRONG  $\pi$ -ACCEPTING LIGAND  
IN METAL ORGANIC CHEMISTRY

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Isocyanides,  $\text{R-NC}$ , are isoelectronic to carbon monoxide. A lot of transition metal complexes containing these ligands have been published during the last century. But till now no perfluorinated isocyanide has been used as a ligand. Due to the strong electron withdrawing effect of the trifluoromethyl-group one can expect an enhancement of the  $\pi$ -accepting ability of trifluoromethylisocyanide. Preparation and structural investigation of the new complexes  $(\text{CO})_5\text{Cr}(\text{CNCF}_3)$ ,  $(\text{CO})_5\text{W}(\text{CNCF}_3)$  and  $\text{Ni}(\text{CNCF}_3)_4$  allow the conclusion that  $\text{CF}_3\text{NC}$  as a ligand behaves more like carbon monoxide than like a common isocyanide. In addition trifluoromethylisocyanide bridged complexes like  $\text{Ni}_2\text{Cp}_2(\text{CNCF}_3)_2$ ,  $\text{Mo}_2\text{Cp}_2(\text{CO})_4(\text{CNCF}_3)_2$  and  $\text{Fe}_3(\text{CO})_{11}(\text{CNCF}_3)$  have been prepared.