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THE AROMATICITY OF TRANSITION METAL COMPLEXES DERIVED FROM 1,2- AND 1,3-DITHIO-DIKETONES

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THE AROMATICITY OF TRANSITION METAL COMPLEXES DERIVED FROM 1,2- AND 1,3-DITHIO-DIKETONES

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Fully conjugated cyclic transition metal complexes are potential aromatic species, showing complete cyclic delocalization of the p- and d-electrons. It was proposed earlier that such aromaticity could only be found in complexes with "even-numbered" ligands (type I), while complexes containing "odd" ligands (type II) should not show full delocalization and hence be classified as non-aromatic.

$$\begin{bmatrix} S \\ S \end{bmatrix} = \begin{bmatrix} S \\ S \end{bmatrix} = \begin{bmatrix} S \\ S \end{bmatrix}$$

We have investigated a series of planar complexes of both types which allow us now to present data to decide upon the merit of the "even-odd" distinction.