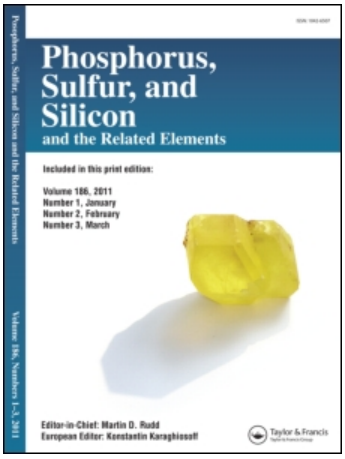

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REACTIONS OF THE SUBSTITUTED THIOUREAS WITH PLATINUM COMPOUNDS

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REACTIONS OF THE SUBSTITUTED THIOUREAS WITH PLATINUM COMPOUNDS

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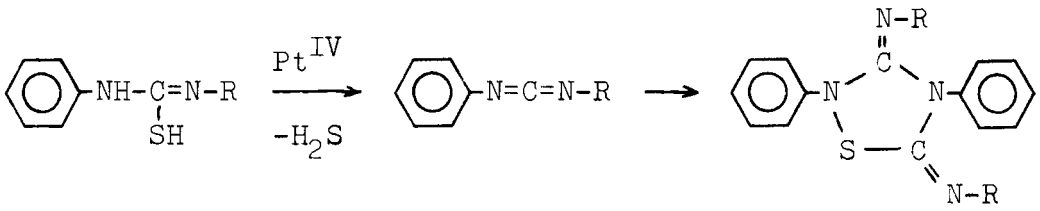
Thiourea and its derivatives easily form the complexes with compounds of Cu^{II}, Fe^{III}, Pt^{IV} etc. By the formation of complexes as a rule redoxprocess proceeds to give an appropriate thiourea disulphide. It has been shown, that redoxprocess goes on prejudice on the derivatives of thiourea in that case when the thion-thiol tautomerism is possible.

This course of the reaction was studied in detail in the reactions of the Pt^{IV} compounds with alkyl- and N,N´-dialkylthioureas which can also exist in thiol tautomeric form. In this case the Pt^{II} complex was formed. The disulphide of substituted thiourea, which is formed by oxidation in this process, was released during the reaction in the solution

$$R\text{-}NH\text{-}\underset{\displaystyle SH}{\underset{|}{C}}{=}NR' \xrightarrow{Pt^{IV}} R\text{-}NH\text{-}\underset{\displaystyle NR'}{\overset{\|}{C}}\text{-}S\text{-}S\text{-}\underset{\displaystyle NR'}{\overset{\|}{C}}\text{-}NH\text{-}R$$

By using aryl-, N,N´-arylalkyl- and N,N´-diarylthioureas and Pt^{IV} compounds reactions proceed in different way. By the reaction of aryl- and alkylarylthioureas with Pt^{IV} in the first step, an unstable carbodiimide is generated on which the further molecule of substituted thiourea is added

immediately and the forming compound is oxidated to Hector base



The reaction Pt^{IV} with diarylthiourea proceeds as a one step oxidation in which 2-anilinbenzthiazole is formed