

# Oxidative S-S-Kopplung von 1,2-Dithiooxalat durch intramolekulare Redoxreaktion der Selen(II)- und Tellur(II)-Komplexe

Oxidative S-S Coupling of 1,2-Dithiooxalate by Intramolecular Redox Reaction of the Selenium(II) and Tellurium(II) Complexes

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The reaction of sodium monochalcogenopentathionates,  $\text{Na}_2[\text{Y}(\text{S}_2\text{O}_3)_2]$  ( $\text{Y} = \text{Se}, \text{Te}$ ) with potassiumdithiooxalate in a water/methanol solution in presence of large cations (*e. g.*  $\text{Ph}_4\text{P}^+$ ,  $\text{Ph}_4\text{As}^+$  or  $\text{BzlPh}_3\text{P}^+$ ) yields complexes of the type  $[\text{Y}(\text{dto})_2]^{2-}$  ( $\text{Y} = \text{Se}, \text{Te}$ ). These complexes are of limited stability and undergo a redox reaction in solution. As the main product of this redox process the 3,4-dithiahexane-2,5-dione-1,6-di(thiocarboxylate) was isolated and characterized by X-ray structure analysis as the benzyltriphenylphosphonium salt (monoclinic space group  $\text{P}2_1/c$ ,  $Z = 2$ ,  $a = 8.899(5) \text{ \AA}$ ,  $b = 16.458(2) \text{ \AA}$ ,  $c = 16.034(6) \text{ \AA}$  and  $\beta = 98.02(2)^\circ$ ). With  $\text{Te}^{2+}$  ( $\text{Y} = \text{Te}$ ) as the coordination center we have been able to isolate the intermediate complex  $(\text{Ph}_4\text{P})_2[\text{Te}(\text{dto})_2]$ .

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