

PREPARATION AND CHEMISTRY OF CIS- AND TRANS- F₄Te(OH)₂

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Trans-tetrafluoro-orthotelluric acid (mp. 118°) is formed from orthotelluric acid and aqueous HF.

Cis-tetrafluoro-orthotelluric acid (mp. 160°) is the only product of the hydrolysis of pentafluoro-orthotelluric acid. With the above compounds as starting materials the stereochemistry of the hydrolysis of TeF₆ can be followed up closely. Interaction of cis- and trans-F₄Te(OH)₂ with CH₂N₂ leads to cis- and trans-F₄Te(OCH₃)₂ and cis- and trans-CH₃OTeF₃OH. Differences in chemical reactivity of these compounds are presented.