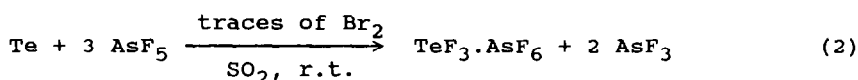
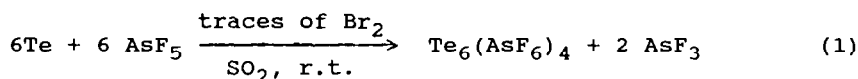


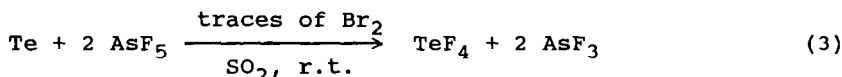
IMPROVED SYNTHESIS OF $\text{Te}_6(\text{AsF}_6)_4$, and $\text{TeF}_3.\text{AsF}_6$

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Original preparation of $\text{Te}_6(\text{AsF}_6)_4$ ¹ involved the reaction of elemental tellurium with excess AsF_5 for several days followed by a tedious and not totally complete separation from $\text{Te}_4(\text{AsF}_6)_2$. The present method involves the oxidation of tellurium with AsF_5 in the presence of traces of Br_2 in SO_2 at r.t. (eq. 1). The sparingly soluble $\text{Te}_6(\text{AsF}_6)_4$ is easily separated from other side products, TeF_4 and $\text{TeF}_3.\text{AsF}_6$ as they are highly soluble in SO_2 . $\text{TeF}_3.\text{AsF}_6$ was detected by NMR in the solutions of TeF_4 and excess AsF_5 in SO_2 ². The present preparation of $\text{TeF}_3.\text{AsF}_6$ (eq. 2) is effected in a simple one step, without the prior preparation of TeF_4 , which is prepared by the reaction of TeO_2 and SF_4 at high pressure³. The method has been extended (eq. 3) to give TeF_4 but needs careful removal of traces of $\text{TeF}_3.\text{AsF}_6$.



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