

NEW  $\text{OTeF}_5$  DERIVATIVES OF XENON(IV), XENON(VI) AND TELLURIUM(VI).

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In view of the recent synthesis and characterization of the novel pentagonal planar ( $D_{5h}$ )  $\text{XeF}_5^-$  anion, it was of interest to attempt the synthesis of the corresponding  $\text{OTeF}_5$  substituted anion,  $\text{Xe}(\text{OTeF}_5)_5^-$ , as well as the series of mixed  $\text{F}/\text{OTeF}_5$  anions,  $\text{XeF}_n(\text{OTeF}_5)_{5-n}^-$  ( $n = 1 - 4$ ). So far all efforts to prepare these anions have failed, rather reactions of  $\text{Xe}(\text{OTeF}_5)_4$  with  $\text{N}(\text{CH}_3)_4^+\text{F}^-$  or  $\text{N}(\text{CH}_3)_4^+\text{OTeF}_5^-$  in  $\text{CH}_3\text{CN}$  have resulted in the formation of the new Xe(IV) oxo-species  $\text{O}=\text{XeF}(\text{OTeF}_5)$  and  $\text{O}=\text{Xe}(\text{OTeF}_5)_2$ . These species, together with the previously known  $\text{O}=\text{XeF}_2$ , have been characterized in solution for the first time by  $^{129}\text{Xe}$  and  $^{19}\text{F}$  NMR spectroscopy.

Analogous reactions with  $\text{OTeF}_5$  derivatives of Xe(VI) and Te(VI) will also be discussed.