# Synthesis and Structures of Bis(pentafluorophenyl) Selenoxide / Telluroxide

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Bis(pentafluorophenyl) Selenoxide, Bis(pentafluorophenyl) Telluroxide, Solvate Structure

Bis(pentafluorophenyl) selenoxide and telluroxide were prepared by oxidation of the corresponding selenide and telluride with *m*-chloroperbenzoic acid. $(C_6F_5)_2SeO$ crystallizes in the triclinic space group $P\bar{1}$ with $a$ = 9.9452(9), $b$ = 14.871(2), $c$ = 15.279(2) Å, $a$ = 117.17(1), $\beta$ = 101.02(1), $\gamma$ = 95.39(1)°. The telluroxide $(C_6F_5)_2TeO$ crystallizes as a dichloromethane or benzene solvate. The crystallographic data are for $(C_6F_5)_2TeO \cdot CH_2Cl_2$: monoclinic space group $P2_1/n$ with $a$ = 18.1918(2), $b$ = 7.7545(1), $c$ = 23.1719(3) Å, $\beta$ = 97.9523(4)°; for $(C_6F_5)_2TeO \cdot {}^1/_2C_6H_6$: triclinic space group $P\bar{1}$ with $a$ = 5.7064(1), $b$ = 10.9473(1), $c$ = 12.1476(1) Å, $a$ = 81.5366(8), $\beta$ = 86.8528(8), $\gamma$ = 88.0700(5)°. The selenoxide forms hexamers, the telluroxide forms strong dimers with chalcogen-oxygen interactions.