

EXCHANGE REACTIONS BETWEEN XENON DIFLUORIDE AND BORON COMPOUNDS
- SYNTHESIS AND PROPERTIES OF SOME NEW XENON(II) DERIVATIVES

W. Tyrre, H. Butler, B. Cremer, D. Pfolk, and D. Naumann
Institut für Anorganische Chemie, Universität zu Köln,
Greinstr. 6, W-5000 Köln 41 (F.R.G.)

The reactions of xenon difluoride with boron derivatives of the general formula BRX_2 (R: C_6F_5 , 2,4,6- $F_3C_6H_2$, 4- FC_6H_4 , C_6H_5 , C_6Cl_5 , 2,6- $Cl_2C_6H_3$; X: R, F, Cl) yielded in most cases salts of the general formula $[RXe]^+[BF_4]^-$. The spectroscopic data of the new compounds and their reaction potential as oxidizers are presented.

Exchange equilibria between XeF_2 and $B(OR)_3$ or BF_3/MOR (R: $COCF_3$, SO_2CF_3 , aryl, alkyl) have been studied (especially by ^{129}Xe -NMR spectroscopy). Several xenon compounds could be identified by NMR spectroscopy and consecutive reactions.