

ARYLDERIVATIVES OF BrF_3

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After successful preparation of the first covalent organobromine-(III)fluoride: $\text{C}_6\text{F}_5\text{BrF}_2$ [1] by nucleophilic substitution on BrF_3 we investigated the reaction of BrF_3 with C-H-containing aryltrifluorosilanes and other aryl-transfer-reagents.

With $p\text{-CF}_3\text{-C}_6\text{H}_4\text{-BrF}_2$ we prepared the first stable not perfluorinated arylbromine(III)-difluoride.

On both arylbromine(III)-difluorides we investigated two types of reactions:

- a) nucleophilic exchange of bromine bonded fluoride against oxoanions and aryl-groups
- b) oxidative fluorination-potential in comparison with BrF_3 and IF_5

As result we report carboxylates of arylbromine(III) and symmetric and asymmetric bromonium-salts $[\text{Ar}_2\text{Br}]^+\text{X}^-$ respectively $[\text{ArAr}'\text{Br}]^+\text{X}^-$.

1 H. J. Frohn and M. Giesen
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