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SUBSTITUTION REACTIONS ON HALOGENATED BENZOTRIFLUORIDES WITH N-NUCLEOPHILES

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Fluorine-containing anilines and phenyl hydrazines are well-known versatile intermediates for biologically active compounds. In a program for screening various classes of herbicides, it was neccessary to synthesize new compounds with particular substitution pattern as intermediates. Benzotrifluoride precursors substituted by fluorine and chlorine in the required positions were synthesized by catalytical hydrogenolysis. Subsequent substitution with ammonia or hydrazine led to the expected compounds.

To optimize the reaction, the reaction conditions (solvent, temperature and amount of reagent) have been examinated and will be discussed in comparison to similiar reactions. The influence of the substitution pattern of the benzotrifluoride as well as of the type of nucleophile will be treated in terms of the products obtained.