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ACCEPTED MANUSCRIPT

Convenient synthesis of aliphatic (CF₃)₂N-compounds

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Dedicated to Professor Helge Willner on the occasion of his 70th birthday.

Keywords: nucleophilic substitution; [N(CF₃)₂]⁻ anion; *N*,*N*-bis(trifluoromethyl)glycine; fluorinated amino acids; acidity; ionic liquids in organic synthesis

Graphical Abstract

$$Br \longrightarrow OC_{2}H_{5} \xrightarrow{Kt^{+}[N(CF_{3})_{2}]^{-}} (F_{3}C)_{2}N \longrightarrow OC_{2}H_{5}$$

$$Kt^{+} = K^{+}, (CH_{3})_{4}N^{+} \longrightarrow OC_{2}H_{5}OH$$

$$(F_{3}C)_{2}N \longrightarrow OH \xrightarrow{HCl(g), Ether - NaCl} (F_{3}C)_{2}N \longrightarrow ONa$$

N,N-bis(trifluoromethyl)glycine

Highlights

- 1. [N(CF₃)₂] anion can be easily generated from CF₃SO₂N(CF₃)₂.
- 2. (CF₃)₂N-derivatieves are accessible via nucleophilic substitution.
- 3. Previously unknown *N*,*N*-bis(trifluoromethyl)glycine is prepared in high yield.

Abstract.

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