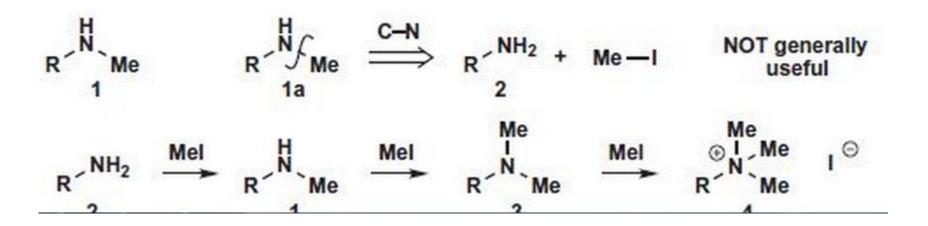
Síntese de aminas

Substituição nucleofílica na carbonila



$$(a) (b) \xrightarrow{\text{reduction}} 18 \text{ H} \xrightarrow{\text{mide}} 19 \text{ CI } H_2N$$

$$\downarrow \text{reduction} 17 \text{ FGI (b)}$$

$$\uparrow \text{reduction} 18 \text{ N} \xrightarrow{\text{mine}} 19 \text{ NH}_2 \text{ O}$$

$$\downarrow \text{reduction} 19 \text{ O}$$

$$\downarrow \text{mine} 19 \text{ O}$$

$$\downarrow$$

$$Ar^{1} \xrightarrow{\text{H}} Ar^{2} \xrightarrow{\text{N}} Ar^{$$

Hex
$$\longrightarrow$$
 Br \longrightarrow $\begin{bmatrix} \text{Hex} & \searrow & \text{NaBH}_4 & \text{Hex} & \searrow & \text{NH}_2 \\ \text{55; Hex = n-hexyl} & 56 & 57; 88\% \text{ yield} \end{bmatrix}$