SEPTEMBER 23-27 2024
19BMOS
BRAZILIAN MEETING ON ORGANIC SYNTHESIS
BENTO GONÇALVES, RS - BRAZIL

Direct amination of selenium containing α-cyanohydrin acetates

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Keywords: *α-Aminonitriles, selenium-containing compounds, direct amination.*

ABSTRACT

α-Aminonitriles are present in a huge variety of bioactive compounds and are versatile building block in organic synthesis. Several catalyzed methodologies, including the Strecker reaction, α-cyanation of amines, and direct amination are described in literature.[1,2] Among them, direct amination remains relatively underexplored. Selenium containing compounds also exhibits diverse biological activity, such as antitumoral, antimicrobial and antioxidant.[3] Herein, the synthesis of novel α-aminonitriles selenides via non-catalyzed direct amination of cyanohydrin acetate (**1**) was achieved by mixing in an amine, in a solventless reaction. (Figure 1). α-Aminonitriles selenides **3a-f** were obtain without the necessity of extraction, and isolated in 33-69% yield.

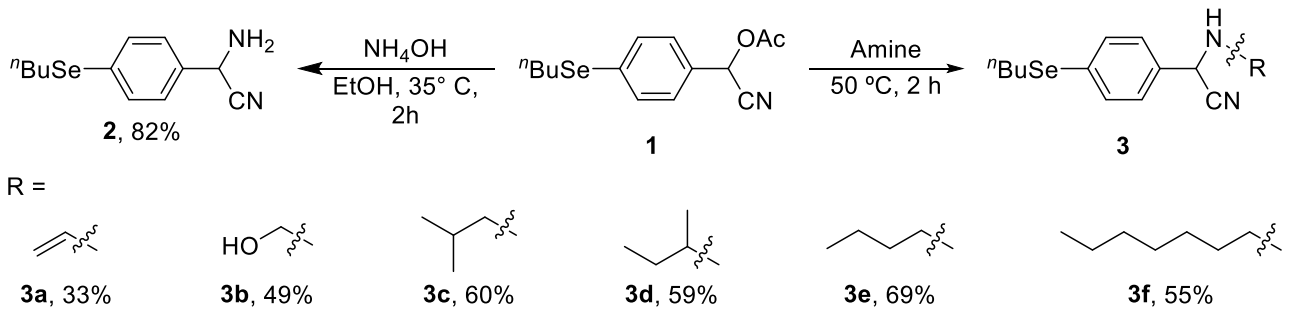

Figure 1 – Synthetic route for α-aminonitriles selenides.

This methodology leads to a simple and efficient synthesis of α-aminonitriles, with relatively good yields.

ACKNOWLEDGEMENTS

The authors thank CAPES and CNPq for their financial supports and also UFPR for the support in the development of this work.

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