



Contribution ID: 6

Type: **not specified**

ELECTROCHEMICAL DECARBOXYLATION OF N-SUBSTITUTED 2-AMINOMALONIC ACID MONOESTERS IN INTERMOLECULAR HOFER-MOEST REACTION

Friday, 17 March 2023 14:40 (20 minutes)

One of the oldest methods in electroorganic synthesis is Kolbe reaction, where alkyl radical is generated upon anodic decarboxylation. In contrast, Hofer-Moest reaction provides a carbocation after anodic decarboxylation followed by a reaction with a nucleophile.

Aminomalonic acid derivatives are readily available substrates that can be relatively easily functionalized, e.g. by alkylation reactions. Herein we report a previously unreported intramolecular Hofer-Moest reaction of *N*-substituted 2-aminomalonic acid monoesters. A stabilized cation 2 is formed after anodic decarboxylation of a malonic acid monoester 1 followed by intramolecular cyclization. The developed method allows to obtain new tetrahydrofuran and tetrahydropyran fragment containing amino acid derivatives 3 in good yields.

Primary authors: Ms PRANE, Katrina; Ms KOLEDA, Olesja

Presenter: Ms PRANE, Katrina

Session Classification: Organic chemistry session