

Electrochemical Synthesis of E-Vinyl Chalcogen Halides

Rodrigo C. Silva, Eric F. Lopes, Rafael A. C. Souza and Julio C. Pastre*
Institute of Chemistry, State University of Campinas, UNICAMP, 13093-862
*e-mail: jpastre@unicamp.br

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ABSTRACT

Tetrasubstituted alkenes are key intermediates in synthesis and also important biologically active compounds, however, their preparation as single isomers is challenging. The introduction of two selectively transformable moieties onto an internal alkyne enables the synthesis of these alkenes through successive cross-coupling reactions. Herein, we describe a regio and stereoselective electrosynthesis of vinyl chalcogen halides *via* the anodic oxidation of diphenyl dichalcogenide (1) in the presence of alkynes (2) and mineral acids (3). The target compounds (4) were obtained in yields up to 94% with E/Z ratios >95:5 as single regioisomers in most cases.

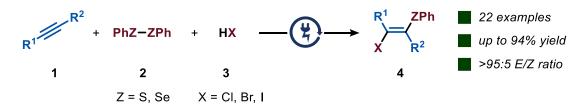


Figure 1: Electrochemical Synthesis of *E*-Vinyl Chalcogen Halides.

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