EuroSciCon

October 04-06, 2018
Moscow, Russia

17th Edition of International Conference and Exhibition on

Pharmaceutics and Novel Drug Delivery Systems

Olga Mikhailovna Mulina et al., Int J Drug Dev & Res 2018, Volume 10
DOI: 10.21767/0975-9344-C1-003

Electrosynthesis of sulfonamides-Important antibacterial and antitumour agents

Olga Mikhailovna Mulina and **Alexander O Terentev**
N D Zelinsky Institute of Organic Chemistry-RAS, Russia

Sulfonamides play an important role in modern organic and medicinal chemistry. Sulfonamide moiety is widespread in natural and biologically active compounds. Substances of this class possess antibacterial, anticancer, antiviral, anticonvulsant, anti-inflammatory, and anti HIV protease activity. Sulfonamide group is applied for the protection of amines due to its easy removing. Therefore wide application fields of these compounds have been stimulating the development of new methods for their synthesis. In recent decades, in order to obtain structures with sulfur-nitrogen bonds oxidative strategies are finding ever-widening application. The main reasons for the rapid development of this area are mild reaction conditions of such processes and a wide scope of substrates used. We for the first time have found electrochemical synthesis of sulfonamides from arylsulfonyl hydrazides or sodium p-methylbenzenesulfinate and amines. The reaction goes in undivided electrochemical cell with the use of graphite anode and iron cathode. The yield of target products is 56-98%. This work was supported by RFBR according to the research project № 18-53-15010 and Projets de Recherche Conjoints (PRC) - CNRS, PRC Russie 2017 CNRS.

Biography

Olga Mikhailovna Mulina was born in 1993. She graduated from D. Mendeleev University of Chemical Technology of Russia in 2015. At this time she is a postgraduate student in N.D. Zelinsky Institute of Organic Chemistry RAS and has already published 1 patent and 5 papers in reputed journals. Her research interests concern with oxidative coupling processes, S-centered radicals and electrosynthesis.

olgademetra@yandex.ru