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Synthesis of new structures of imidazolium salts on the rout to possible drugs

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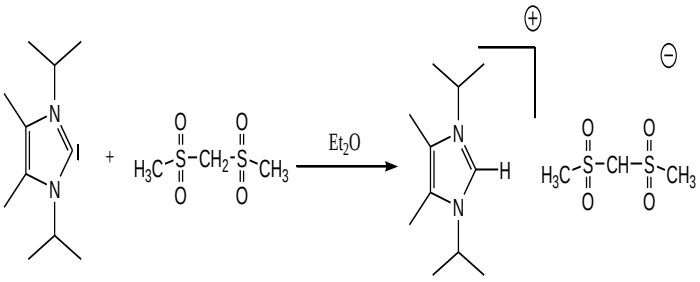
Abstract

As result of the strongly basic character of heterocyclic carbenes **1**, they react with *Broenstedt* acids and have consequently been used as selective deprotonation reagents. The 2H-imidazolium salts formed by this method are accessible by other routes, alkylation of 2H-imidazoles, cyclization reactions or from the thiones and nitric acid, and may be used as precursors in the synthesis of **1** through deprotonation.

So our current research efforts also continue to focus on design and synthesis of new structures of imidazolium salts. Therefore, Owing the strongly basic character of heterocyclic carbenes reacted with methyl phenyl disulfide to give the corresponding adduct **2** which afford a new synthetic route for 2,3-dihydro-imidazole-2-thione. While the reaction of **1** with bis-methane sulfone was carried out at RT to give the salt **4**.

The above mentioned reactions are outlined in scheme 1, the results confirmed by NMR, mass spectroscopy, elemental analysis and single crystal X-ray diffraction.



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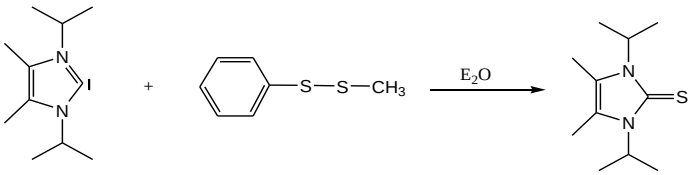

1 2

Biography:

Prof. Eyad Mallah has completed his PhD at the age of 30 years from Tuebingen University, Germany. I'm currently working as a professor at Faculty of Pharmacy in University of Petra. I have a specific interest in Pharmaceutical organic chemistry and Pharmaceutical analytical chemistry. My degree has provided me with a strong background in all areas of Pharmaceutical Chemistry and I have developed a specific interest in bioequivalence studies since I have worked in this field at (JCPR) bioequivalence center for about 7 years. I'm currently working on development of chromatographic and immunoassay methods for analyzing different pharmaceutical compounds in biological fluids which could be used in bio-studies.

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