

8th International Conference on **Environmental Chemistry and Engineering**
&
7th Edition of International Conference on
Green Energy, Green Engineering and Technology

September 20-22, 2018 Berlin, Germany

Uses of cyclohexanediones for the synthesis of nitrogen and/or sulfur heterocyclic compounds together with their cytotoxic evaluations

Rafat M Mohareb¹ and Thomas M Klapötke²

¹Cairo University, Egypt

²Ludwig-Maximilian University of Munich, Germany

In organic chemistry, due to their many applications, derivatives of thiophene stand out among biomolecules used in trials to determine biological activity. They are present in natural products and are frequently incorporated into agrochemicals, dyes, and drugs in general. Various thiophene derivatives are produced by molecular modifications through varied synthesis routes that result in increases in specificity and thus safety profiles. Within the thiophenic family, the 2-amino-thiophenes have been well reported. In new drugs investigations they occupy a special position due to innovations in their synthesis (Gewald reaction), availability, stability, and structural simplicity that allow them to be important scaffolds in chemical and therapeutic products; like the top selling drugs olanzapine and tinoridine. In addition, they present a large spectrum of biological properties that include antimicrobial, anti-inflammatory antioxidant and antiplatelet activities. In the present work we demonstrated the uses of cyclohexane-1,3-dione and cyclohexane-1,4-dione for the synthesis of thiophene, pyrazole and pyran derivatives.

Biography

Rafat M Mohareb is a Professor of Organic Chemistry at the Department of Chemistry, Faculty of Science, Giza, Egypt since 1994 till now. He got his PhD in Organic Chemistry on 1984, Cairo. He has worked as Visiting Professor at UC Berkeley University State of California USA from 1999-2002 and Visiting Professor at Kuwait University 1995-1996. He was a Humboldt fellow in Germany in 1988, 1989, 1993, 1995, 1998, 2003, 2006 and 2009-2012, 2013-2016. He received the price of encouragement of research work from Egypt 1995. He published more than 170 scientific publications in international journals. He has supervised more than 30 PhD and 60 MSc Theses.

raafat_mohareb@yahoo.com

Notes: