María Vera Tárraga et al., Mod Chem Appl 2018, Volume: 06
DOI: 10.4172/2329-6798-C1-009

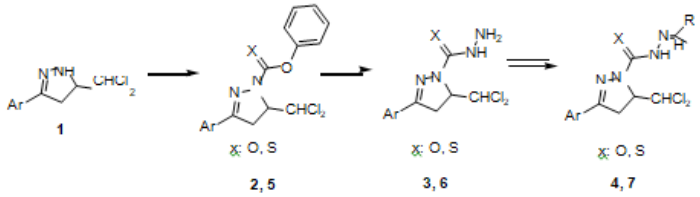
9th Global Chemistry Congress

July 23-24, 2018 | Lisbon, Portugal

Synthesis and biological evaluation of novel 2-pyrazoline derivatives

María Vera Tárraga, A Guirado, V Carmona, A J Ruiz Alcaraz, M Martínez Esparza, P García Peñarrubia and **F Ródenas**
University of Murcia, Spain

Owing to the wide variety of biological activities of heterocyclic compounds comprising a 2-pyrazoline moiety, the development of new preparative methods for this class of compounds has become a subject of great interest. We previously described the first synthesis of 3-aryl-5- dichloromethyl-2-pyrazolines 1 involving chloral and several chloral derivatives. Pyrazolines 1 were able to react with phenyl chloroformate to give the corresponding phenyl pyrazolinecarboxylates 2. These compounds were used as intermediates to obtain carbohydrazides 3, which were used in preparing carbohydrazones 4. A similar reaction sequence but using O-phenyl chlorothioformate instead of phenyl chloroformate provided good approaches to the respective intermediates 5, carbothiohydrazides 6 and carbothiohydrazones 7. The novel substances 3,4,6,7 were assayed to test their antitumoral properties against two leukemia cell lines, resulting IC50 values between: 4.38-20.01 μM (HL-60) and 2.19-17.05 μM (K562).



Biography

María Vera Tárraga has completed her BSc in Chemistry and MSc in Organic Chemistry from Murcia University (Spain). She is currently a PhD student working on the synthesis of bioactive heterocyclic compounds.

maria.vera8@um.es

Notes: