

CHEMICAL SCIENCES

Synthesis of Novel Spiro Phosphonyl thiazolo pyrazole Glycosides as Potential Biological agents

Dr. Avula Srinivas^{*,a} Dr.Malladi Sunitha^b

^a Department of Chemistry, Vaagdevi Degree & PG College Kishanpura, Warangal, Telangana, India 506001
E-mail: avula.sathwikreddy@gmail.com

^b Department of chemistry, Jayamukhi Institute of Technological sciences, Narsampet, Warangal, Telangana, India.
E-mail: asvas1978@gmail.com

A series of novel dimethyl 7-((3aR,5S,6S,6aR)-6-((1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-2,2-dimethyltetrahydrofuro[2,3-d][1,3]dioxol-5-yl)-4-(4-fluorophenyl)-9-oxo-8-phenyl-6-thia-1,2,8-triazaspiro[4.4]non-2-en-3-ylphosphonate **10a-g** were synthesized by the reaction of chalcone derivatives of 2-((3aR,5S,6S,6aR)-6-((1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-2,2-dimethyltetrahydrofuro[2,3-d][1,3]dioxol-5-yl)-3-phenylthiazolidin-4-one **9** with Bestmen Ohira reagent. The chemical structures of newly synthesized compounds were elucidated by IR, NMR, MS and elemental analysis. The compounds **10 a-g** were evaluated for their nematocidal activity against *Dietylenchus myceliophagus* and *Caenorhabditis elegans*, compound **10b,10c,10g** and **10 f** showed appreciable nematocidal activity.

Keywords: Phosponylpyrazoles, Bestmenohira reagent, click reaction, Knoevenagel condensation.

References:

1. Srinivas, A.; Sunitha, M.; Karthik, P.; Nikitha, G.; Raju, K.; Ravinder, B.; Anusha, S.; Rajasri, T.; Swapna, D.; Swaroopa, D.; Srinivas, K.; Vasumathi Reddy, K.; *J.Heterocycl. Chem.*, 2017, 54, 3250.

Paper ID (To be added by Programme Committee)