DR-41. SYNTHESIS AND ANTIMICROBIAL ACTIVITY OF SPIROHETEROCYCLES

G. L. Teja[1], P. S. Sankar[1], N. Bakthavatchala Reddy[2], V. Padmavathi[1], G. V. Zyryanov[2,3]

[1] Department of Chemistry, Sri Venkateswara University, Tirupati, Andhra Pradesh, 517502, India

[2] Ural Federal University of the first President of Russia B. N. Yeltsin, Mira St., 19, Yekaterinburg, 620002, Russia

[3] I. Ya. Postovsky Institute of Organic Synthesis UB RAS, S. Kovalevskoy/Akademicheskaya St., 20/22, Yekaterinburg, 620990, Russia

E-mail: vkpuram2001@yahoo.com

A new class of spiroheterocycles-pyrazolinylthienofuranones and isoxazolinylthienofuranones were prepared from benzylidene thienofuranones by 1,3-dipolar cycloaddition of nitrile imines and nitrile oxides. The dipolar reagents were generated from araldehyde phenylhydrazones and araldoximes in the presence of phase transfer catalyst. All the compounds are tested for their antimicrobial activity. Chloro substituted pyrazolinyl and isoxazolinylthienofuranones displayed prominent antibacterial activity against *B. subtilis* greater than the standard drug Chloramphenicol and antifungal activity against *A. niger*greater than Ketoconazole.