

Synthesis and biological evaluation of some novel 1,2,4-triazoles

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Triazoles and triazoles with different substituent groups are found to possess diverse application in the field of medicine and industry. A Series of 4-(substituted ethanoyl) amino-3-mercapto-5-(4-substituted) phenyl-1,2,4-triazoles were synthesized as novel antimicrobials, anti-inflammatory and analgesic agents starting from different 4-substituted benzoic acids. The chemical structures of these newly synthesized compounds were elucidated by IR, ¹H NMR, ¹³C NMR, FAB+-MS spectral data and elemental analysis. The antimicrobial activity of title compounds were examined against two gram positive bacteria (*S. aureus*, *B. subtilis*), two gram negative bacteria (*E. coli*, *P. aeruginosa*) and three fungi (*C. albicans*, *A. niger*, *F. oxysporum*) using disc diffusion method. Anti-inflammatory activity of the compounds was evaluated by carrageenan-induced rat paw edema method and some of the active compounds were evaluated for analgesic activity using hot plate method and tail immersion method. Some of the compounds bearing methoxy group exhibited moderate to good activity.

Biography

Neeraj Upmanyu has completed his Ph.D. degree from Dr. H. S. Gour University, Sagar (M.P.)-India. He is Head, Department of Pharmaceutical Chemistry, R.K.D.F. College of Pharmacy. He has published more than 35 papers in reputed journals and two international Books and is reviewer of various reputed journals like *Medicinal Chemistry Research*, *Journal of Bioorganic and Medicinal Chemistry*, *Journal of Pharmacy* and *Bioallied Sciences* etc. He recently visited tetrahedron conference for attending and presenting research paper in tetrahedron conference held at Amsterdam.

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