

ABSTRACT

The contemporary research project was initiated by the preparation of parent compound 5-(4-methoxyphenyl)-4-phenyl-4*H*-1,2,4-triazole-3-thiol **AR1(VII)** through the reaction of 4-methoxybenzohydrazide (**IV**) and phenylisothiocyanate (**V**). This compound was further treated with 1-Bromopropane AR2 (VII) in the presence of aprotic solvent using lithium hydride which work as activator to achieve 3-(4-methoxyphenyl)-4phenyl-5(propylthio)-4*H*-1,2,4-triazole **AR3 (XI)**. The structure of novel molecule was elucidated by ¹H-NMR and ¹³C-NMR spectral technique. Triazoles expose a lot of pharmacological applications which include anti-bacterial, anti-cancer, anti-inflammatory, anticonvulsant, antioxidant, antimicrobial, antifungal and work as inhibitors of various enzymes.