

Synthesis and Antimicrobial Activity of Tolyloxy Derived Oxadiazoles

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Abstract : m-Cresol and oxadiazoles are the potent antimicrobial moieties. 2-(m-Tolyloxy)acetohydrazide (1) on cyclization with aromatic acids yielded 2-(aryl)-5-(m-tolyloxymethyl)-1,3,4-oxadiazole (1A-E). The structures of newer oxadiazoles were confirmed by elemental and spectral analysis. The newer compounds were evaluated for their antimicrobial potential. The compound 1E containing strong electron withdrawing group showed maximum antimicrobial potential. Other compounds also displayed antimicrobial potential to certain extent. The SAR of newer oxadiazoles indicated that substitution of strong electronegative group in the tolyloxy derived oxadiazoles enhanced their antimicrobial potential.

Keywords : antibacterial, cresol, hydrazide, oxadiazoles

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