

Journal of Applicable Chemistry

2018, 7 (1): 45-51 (International Peer Reviewed Journal)



Synthesis, Characterisation And Antimicrobial Activities of Schiff Bases containing 1,3,4-oxadiazoleMoiety

Jaydeep A. Patel and Navin B. Patel*

*Department of Chemistry, Veer Narmad South Gujarat University, Surat-395007, INDIA

Email: drnavinbpatel@gmail.com, jaydeep073@gmail.com

Accepted on 19th December 2017, Published online on 27th January 2018

ABSTRACT

In present work PABA A reacted with substituted aldehyde B to given schiff based 4-(substitutidene amino)benzoic acid C. Which further reacted with semicarbezide and substituted aldehyde D to obtained cyclic product and schiff base as final moiety N-(4-(5-(substitutideneamino)-1,3,4-oxadiazole-2-yl) phenyl) substituedimine E. The synthesized molecules were spectrally evaluated by IR, ¹H NMR, ¹³C NMR and Mass spectra. Synthetic analogues screened for their antimicrobial activities. Among the tested compounds, E_8 displayed very good antibacterial activity against E. coli and S. aureus strain. E_4 , E_5 and E_8 showed very good antibacterial activity against P. aeruginosa strain. E_1 has given good antifungal activity against A. niger and A. clavatus species.

Graphical Abstract:



Synthesis of N-(4-(5-(substitutideneamino)-1,3,4-oxadiazole-2-yl)phenyl) substituedimine.

Keywords: Oxadiazole, schiff base, antibacterial and antifungal.