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Synthesis And Screening of Some Novel Indole Based 5-Sulfanyl-[1, 3, 4]-Oxadiazole

N.Vasu^{1,2}, B. Bharath Kumar Goud¹*, Y. Bharathi Kumari² and B. Thirupathi³

1. Suven Life Sciences Ltd, Jeedimetla, Hyderabad-500 055 (AP), INDIA

Department of Chemistry, Jawaharlal Nehru Technological University, Hyderabad-500 072 (AP), INDIA
Sai Advantium Pharma Limited, ICICI Knowledge Park, Thurkapalli, Hyderabad-500065, INDIA

Email: bkgoud2014@gmail.com

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ABSTRACT

A series of novel 5-bromo-2-(5-substituted sulfanyl-[1,3,4]-oxadiazol-2-yl)-1H-indoles (4a-f) were synthesized in good yields from starting material, 5-bromo-1H-indole-2-carbxylic acid (1) and by involving 5-bromo-1H-indole-2-carbxylic acid hydrazide (2) and 5-(5-bromo-1H-indol-2-yl)-[1,3,4]oxadiazol-2-thiol (3) as intermediates. The chemical structures of the newly synthesized compounds were elucidated by their IR, ¹H & ¹³C NMR and mass spectral data. Further, all the title compounds were screened for their antibacterial and anti-fungal activity.

Keywords: [1,3,4]-Oxadiazols, Antibacterial activity, Antifungal activity.