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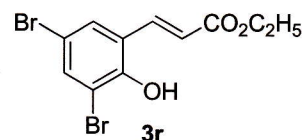
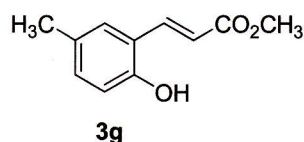
NUMBER 01

January 2021

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### Papers

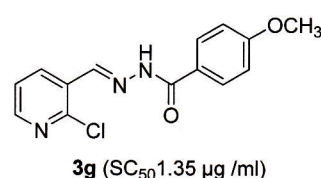
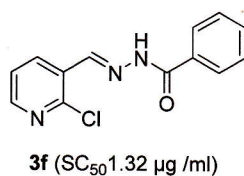
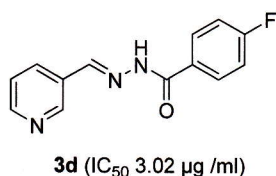
- 111 Free radical scavenging and  $\alpha$ -glucosidase inhibitory activity of (*E*)-methyl/ethyl-3-(2-hydroxyphenyl)-acrylates**
- (*E*)-Methyl/ethyl-3-(2-hydroxyphenyl)acrylates **3a-x** have been prepared by the reaction of salicylaldehydes **1a-l** with Wittig reagents such as methyl (triphenyl-phosphoranylidene)acetate **2a** and ethyl (triphenyl-phosphoranylidene)acetate **2b** in dry DCM at room temperature. All the synthesized compounds have been evaluated for free-radical scavenging and  $\alpha$ -glucosidase inhibitory activities. Compounds **3c** and **3d** display DPPH free radical scavenging activity. All the compounds have shown ABTS free radical scavenging activity except four compounds **3s-t** and **3w-x**. Compounds **3g**, **3p** and **3r** display  $\alpha$ -glucosidase inhibitory activity.



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- 117 A convenient synthesis and biological activities of *N*-(pyridin-3-ylmethylene)benzohydrazides by the condensation of nicotinaldehydes with benzohydrazides**
- Series of *N*-(pyridine-3-ylmethylene)benzohydrazides **3a-y** have been prepared by the condensation of nicotinaldehydes **1a-e** with benzohydrazides **2a-e** in the presence of glacial AcOH in ethanol at room temperature. Total twenty five compounds have been prepared and confirmed based on spectral data. The compounds have been evaluated for anti-microbial, free radical scavenging (DPPH, ABTS<sup>+</sup>) and  $\alpha$ -glucosidase inhibitory activities. Compound **3h** has shown potent anti-fungal activity. Compounds **3f-g** and **3j** have shown potent ABTS<sup>+</sup> free radical scavenging activity. Compound **3d** has shown potent anti-hyperglycemic activity.

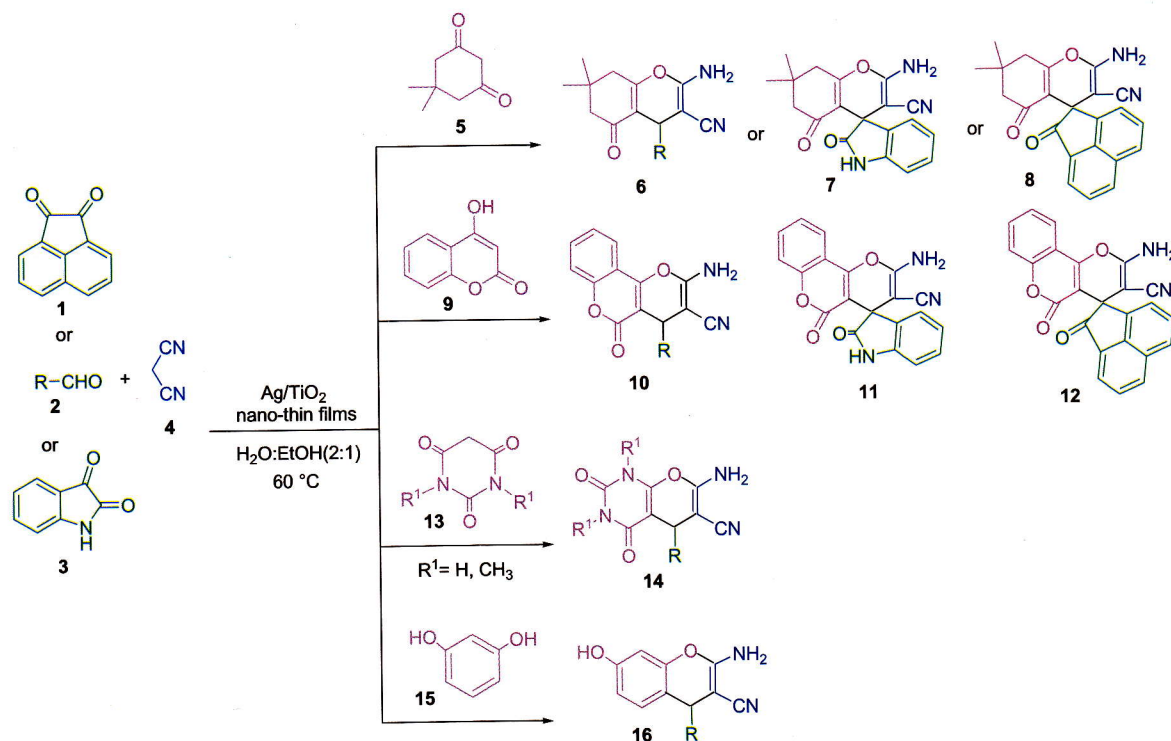


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127 **Three-component coupling approach for the synthesis of 4H-pyran and pyran-annulated heterocyclic scaffolds utilizing Ag/TiO<sub>2</sub> nano-thin films as robust recoverable catalyst**

As a segment of ongoing surveys and with the aim of expansion of environmentally benign processes, a series of biologically varied type of substituted 2-amino-3-cyano-4H-pyrans and pyran-annulated Scaffolds have been synthesized by tandem Knoevenagel-cyclocondensation of aldehydes, malononitrile, and C-H-activated acidic compounds in aqueous ethanol in the presence of Ag/TiO<sub>2</sub> nano-thin films as an eco-friendly, recyclable, and, robust catalyst at 60°C.

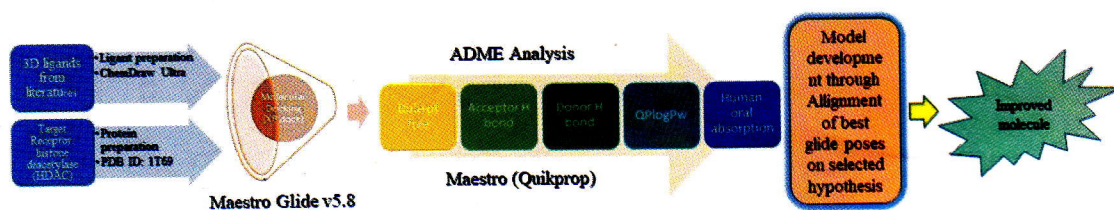


Fatemeh Noori Sadeh, Mojtaba Lashkari\*, Nourallah Hazeri, Maryam Fatahpour, Malek Taher Maghsoodlou, Mohammad Saeed Hadavi & Sahar Mahnaei

Faculty of Sciences, Velayat University, Iranshahr, Iran

136 **Exploration of anticancer potential of hydroxamate derivatives as selective HDAC8 inhibitors using integrated structure and ligand based molecular modeling approach**

Structure activity relationship has been established among hydroxamic acid based HDAC8 inhibitors as anticancer agents using combined approach of ligand and structure based methods.



Ekta Shirbhate, Divya, Preeti Patel, Vijay K Patel, Ravichandran Veerasamy & Harish Rajak\*

Medicinal Chemistry Research Laboratory, Institute of Pharmaceutical Sciences, Guru Ghasidas University, Bilaspur 495 009 India

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- 148** Synthesis, characterization and potent antimicrobial and antifungal activity of 2-substituted benzimidazole derivatives

**Rohit Verma\***, Chitra Gupta, Ali Mohd Ganie, Sanjay Singh & P K Singh

Department of Chemistry T.R.S. College, Rewa, India

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- 152** Synthesis and evaluation of 2,3,4,9-tetrahydro-1*H*-carbazole derivatives as selective acetylcholinesterase inhibitors: Potential anti-Alzheimer's agents

Hitesh Kukreja, Rajan Chugh, Jatinder Singh, Ramanpreet Shah, Dhandeep Singh\*, Nirmal Singh, Dimple Sethi Chopra & Mandeep Singh

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