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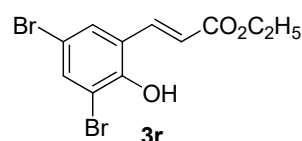
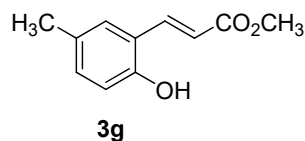
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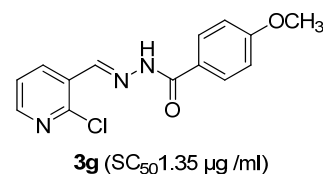
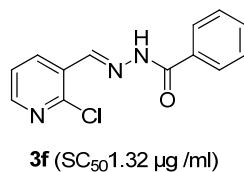
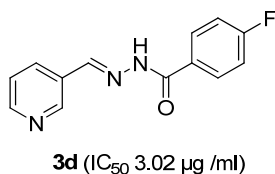
- 111 Free radical scavenging and α -glucosidase inhibitory activity of (*E*)-methyl/ethyl-3-(2-hydroxyphenyl)-acrylates** (*E*)-Methyl/ethyl-3-(2-hydroxyphenyl)acrylates **3a-x** have been prepared by the reaction of salicylaldehydes **1a-l** with Wittig reagents such as methyl (triphenyl-phosphoranylidene)acetate **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 α -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 α -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⁺) and α -glucosidase inhibitory activities. Compound **3h** has shown potent anti-fungal activity. Compounds **3f-g** and **3j** have shown potent ABTS⁺ free radical scavenging activity. Compound **3d** has shown potent anti-hyperglycemic activity.

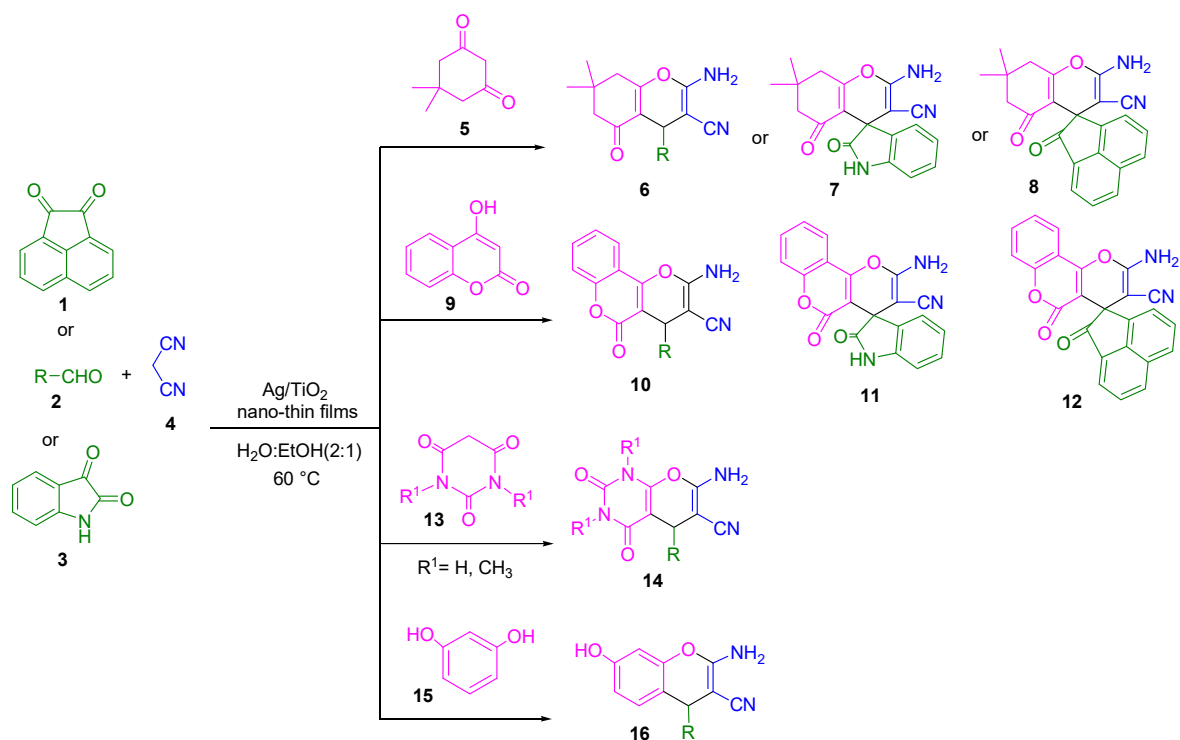


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127 Three-component coupling approach for the synthesis of 4H-pyrans and pyran-annulated heterocyclic scaffolds utilizing Ag/TiO₂ nano-thin films as robust recoverable catalyst

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/TiO₂ nano-thin films as an eco-friendly, recyclable, and, robust catalyst at 60°C.

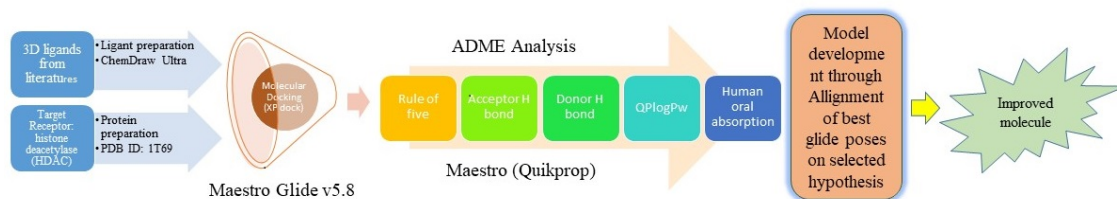


Fateme Noori Sadeh, Mojtaba Lashkari*, Nourallah Hazeri, Maryam Fatahpour, Malek Taher Maghsoodlou, Mohammad Saeed Hadavi & Sahar Mahnaei

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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*

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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

- 152 **Synthesis and evaluation of 2,3,4,9-tetrahydro-1H-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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