

पेटेंट कार्यालय
शासकीय जर्नल

**OFFICIAL JOURNAL
OF
THE PATENT OFFICE**

निर्गमन सं. 35/2023
ISSUE NO. 35/2023

शुक्रवार
FRIDAY

दिनांक: 01/09/2023
DATE: 01/09/2023

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311053023 A

(19) INDIA

(22) Date of filing of Application :08/08/2023

(43) Publication Date : 01/09/2023

(54) Title of the invention : DESIGNING, MOLECULAR DOCKING AND BIOLOGICAL EVALUATION OF PHENOTHIAZINE DERIVATIVES AS INHIBITORS OF ANXIETY

(51) International classification :A61P0025220000, A61P0025200000, B01J0019000000, A61P0001080000, C40B0050140000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

1)Ms. Pooja Saini

Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, Faculty of Pharmacy, IFTM University, Moradabad. Uttar Pradesh, Pin Code: 244102. -----

2)Prof. Sushil Kumar

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Ms. Pooja Saini

Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, Faculty of Pharmacy, IFTM University, Moradabad. Uttar Pradesh, Pin Code: 244102. -----

2)Prof. Sushil Kumar

Address of Applicant :Professor & Director, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----

(57) Abstract :

The present invention relates to the design and synthesis of novel phenothiazine derivatives, specifically a series of 1-(10H-phenothiazin-10-yl)-2-(4-((phenylimino)methyl)phenoxy)ethan-1-one (D1-D10). The characterization of these derivatives were done by using FTIR and NMR spectroscopy. The potential interactions of the synthesized compounds with target proteins, were identified by using the computational studies and docking simulations, which were performed using Autodock Vina, Chem Draw Ultra, and Chem3D software. Furthermore, the anti-anxiety activity of the newly synthesized compounds was evaluated using the elevated plus maze method. Notably, compounds D4, D5, and D7 demonstrated remarkable potency against anxiety compared to the standard anti-anxiety drug, Diazepam. These findings suggest the potential of these phenothiazine derivatives as promising candidates for further development as effective anti-anxiety agents in medicinal chemistry research.

No. of Pages : 16 No. of Claims : 4