

पेटेंट कार्यालय  
शासकीय जर्नल

**OFFICIAL JOURNAL  
OF  
THE PATENT OFFICE**

---

---

निर्गमन सं. 22/2026  
ISSUE NO. 22/2026

शुक्रवार  
**FRIDAY**

दिनांक: 29/05/2026  
DATE: 29/05/2026

---

---

पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202611049353 A

(19) INDIA

(22) Date of filing of Application :17/04/2026

(43) Publication Date : 29/05/2026

(54) Title of the invention : SYNTHESIS OF 3-(4-(DIMETHYL AMINO) PHENYL)-1-(4-((3-(M-TOLYLOXY) PROPYL) AMINO) PHENYL) PROP-2-EN-1-ONE

(51) International classification	:A61P31/04, A61K47/00, A61K9/00, A61K31/12, A61K31/137, C07C211/03, C07C49/203	(71)Name of Applicant : <b>1)Dr. Akhlesh Kumari</b> Address of Applicant : Associate Professor School of Pharmaceutical Sciences, Faculty of Pharmacy, IFTM University, Moradabad (U.P) -244102 Uttar Pradesh India <b>2)Dr. Sushil Kumar</b> <b>3)Mr. Jatin Kishore Sharma</b> <b>4)Mr. Sagar Varshney</b> <b>5)Ms. Amisha Varshney</b>
(31) Priority Document No	:NA	(72)Name of Inventor : <b>1)Dr. Akhlesh Kumari</b> <b>2)Dr. Sushil Kumar</b> <b>3)Mr. Jatin Kishore Sharma</b> <b>4)Mr. Sagar Varshney</b> <b>5)Ms. Amisha Varshney</b>
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:	
Filing Date	:01/01/1900	
(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	

(57) Abstract :

The present invention relates to a novel chalcone compound, 3-(4-(dimethylamino)phenyl)-1-(4-((3-(m-tolyloxy)propyl)amino)phenyl)prop-2-en-1-one (compound 7C), and a three-step process for its synthesis as a broad-spectrum antimicrobial agent. Initially, m-cresol reacts with 1-bromo-3-chloropropane in acetonitrile with potassium carbonate to form 1-(3-chloropropoxy)-3-methylbenzene. This intermediate is then coupled with 4-aminoacetophenone to yield a secondary amine, followed by Claisen-Schmidt condensation with 4-(dimethylamino)benzaldehyde in ethanol and potassium hydroxide to produce compound 7C with 43 percent yield and melting point of 193 degrees Celsius. Structural confirmation is achieved by FTIR and <sup>1</sup>H NMR. In silico studies show strong binding to E. coli DNA gyrase and C. albicans lanosterol alpha-demethylase, with favorable ADMET properties. In vitro studies confirm activity against S. aureus, E. coli, C. albicans, and C. mycoderma.

No. of Pages : 14 No. of Claims : 10