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पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(54) Title of the invention : AMBROXOL AND LEVOCETIRIZINE LOADED BIO-FLEXY PLATES FOR OROTRANSMUCOSAL SOFT PALATE DELIVERY

(51) International classification	:A61K0036230000, A61K0009000000, A61K0031137000, A61K0031495000, A61K0009200000	(71)Name of Applicant : <b>1)Mrs Sheetal Negi</b> Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, Faculty of Pharmacy, IFTM University, Lodhipur Rajput, Moradabad, Uttar Pradesh, Pin Code: 244102 Uttar Pradesh India
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(86) International Application No	:	(72)Name of Inventor :
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## (57) Abstract :

The present invention relates to the development and evaluation of novel bio-flexy plates for orotransmucosal delivery of Ambroxol and Levocetirizine. The formulations incorporate Ferula asafoetida resin as a natural polymer, combined with carbopol and plasticizers such as dextrose and sucrose, to produce flexible, stable, and patient-friendly dosage forms. Bio-flexy plates were prepared using the solvent casting method, and characterized for weight and content uniformity, thickness, surface pH, folding endurance, moisture content, and in-vitro drug release. The optimized formulation (FA7, 1:1:60) demonstrated sustained and controlled drug release over 12 hours, high flexibility, minimal moisture uptake, and compatibility with salivary pH. In-vivo studies in rabbits confirmed prolonged systemic availability of both drugs. Stability studies according to ICH guidelines showed that the bio-flexy plates remained stable under various storage conditions. The invention provides a promising approach for enhanced therapeutic efficacy, improved patient compliance, and efficient orotransmucosal delivery of respiratory and antihistamine drugs.

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