

पेटेंट कार्यालय  
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पेटेंट कार्यालय का एक प्रकाशन  
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(54) Title of the invention : PHYTOCHEMICAL, PHYSICOCHEMICAL, AND ANTIMICROBIAL EVALUATION OF AEGLE MARMELOS LEAVES

<p>(51) International classification :A61K36/75, A61P31/04</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p><b>1)Mrs. Richa Saxena</b> Address of Applicant :Assistant Professor, School of Pharmaceutical sciences, Faculty of Pharmacy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>2)Ms. Manisha Dev</b> Address of Applicant :Research Scholar, School of Pharmaceutical sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102. -----</p> <p><b>3)Mr. Apoorv Rastogi</b> Address of Applicant :Assistant Professor, Sahara Degree College, Janunagar, Kemri, Milak, Rampur, Uttar Pradesh, Pin Code: 243701 -----</p> <p><b>4)Ms. Tahira Sultan</b> Address of Applicant :Assistant Professor, School of Pharmaceutical sciences, Faculty of Pharmacy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102. -----</p> <p><b>5)Ms. Srishti Goyal</b> Address of Applicant :Assistant Professor, School of Pharmaceutical sciences, Faculty of Pharmacy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102. -----</p> <p><b>6)Dr. Sushil Kumar</b> Address of Applicant :Professor, School of Pharmaceutical sciences, Faculty of Pharmacy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102. -----</p> <p><b>7)Dr. Navneet Verma</b> Address of Applicant :Professor, Pharmacy Academy, Faculty of Pharmacy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>8)Dr. Mhaveer Singh</b> Address of Applicant :Associate Professor, School of Pharmaceutical sciences, Faculty of Pharmacy, IFTM University Moradabad, Uttar Pradesh, Pin Code:244102 -----</p> <p><b>9)Mr. Amit Kumar</b> Address of Applicant :Assistant Professor, MIT College of Pharmacy, MIT Campus, (Affiliated to Dr. A.P.J. Abdul Kalam Technical University), Ram Ganga Vihar Phase-II, Moradabad, Uttar Pradesh, Pin Code: 244001 -----</p> <p><b>10)Mrs. Preeti Kumari Diwakar</b> Address of Applicant :Radha Govind institute of pharmacy , 8th KM, Akroli Chowraha , Bilari Road Chandausi, Sambhal, Uttar Pradesh, Pin Code: 204411 -----</p>
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## (57) Abstract :

The present invention relates to the the physicochemical, phytochemical, and biological evaluation of Aegle marmelos leaves to explore their therapeutic potential. Physicochemical parameters revealed moisture content (5.8%), total ash (9%), water-soluble ash (6.32%), and acid-insoluble ash (2.52%), indicating inorganic residue composition. Extractive values showed ethanol-soluble (12.19%) and water-soluble (16.06%) extracts, characterized by green, sticky textures. Preliminary phytochemical screening confirmed alkaloids, flavonoids, tannins, and steroids, among others, with solvent-dependent variations. TLC analysis identified distinct phytochemical spots with Rf values (0.2–0.7). Detection of inorganic constituents highlighted calcium, magnesium, carbonate, and iron. Antimicrobial activity of ethanolic extracts exhibited zones of inhibition against pathogens, with maximum activity against *Bacillus subtilis* (21 mm). A low foaming index (<1 cm) suggested minimal saponin content. UV fluorescence analysis showcased unique phytochemical traits, emphasizing the bioactive diversity of Aegle marmelos.

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