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(54) Title of the invention : EXTRACTION, ISOLATION, CHARACTERIZATION AND NEUROPROTECTIVE ACTIVITY OF ETHANOLIC EXTRACT OF LEUCAENA LEUCOCEPHALA

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| <p>(51) International classification :A61P0025280000, A61P0025000000, A23L0033105000, G01N0024080000, A61K0031352000</p> <p>(86) International Application No :NA<br/>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA<br/>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA<br/>Filing Date :NA</p> | <p>(71)Name of Applicant :</p> <p><b>1)Mr. Dinesh Kumar</b><br/>Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -</p> <p>-----</p> <p><b>2)Dr. Asheesh Kumar Gupta</b></p> <p><b>3)Dr. Sushil Kumar</b></p> <p><b>4)Mr. Anesh Sagar</b></p> <p><b>5)Mr. Vidhan Chand Bala</b></p> <p><b>6)Dr. Arvind Kumar</b></p> <p><b>7)Mr. Raj Kumar Singh Bharti</b></p> <p>Name of Applicant : NA<br/>Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p><b>1)Mr. Dinesh Kumar</b><br/>Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -</p> <p>-----</p> <p><b>2)Dr. Asheesh Kumar Gupta</b><br/>Address of Applicant :Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102 -----</p> <p>-----</p> <p><b>3)Dr. Sushil Kumar</b><br/>Address of Applicant :Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -----</p> <p>-----</p> <p><b>4)Mr. Anesh Sagar</b><br/>Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -</p> <p>-----</p> <p><b>5)Mr. Vidhan Chand Bala</b><br/>Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -</p> <p>-----</p> <p><b>6)Dr. Arvind Kumar</b><br/>Address of Applicant :Associate Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -</p> <p>-----</p> <p><b>7)Mr. Raj Kumar Singh Bharti</b><br/>Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University Lodhipur Rajput, Moradabad, Uttar Pradesh, India. Pin 244102. -</p> <p>-----</p> |
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(57) Abstract :  
 ABSTRACT This invention presents the extraction, isolation, and neuroprotective activity of ethanolic extracts from the leaves of Leucaena leucocephala. Utilizing the Soxhlet extraction method, we obtained a concentrated extract that underwent phytochemical analysis and chromatographic separation to isolate key bioactive compounds, including catechin and quercetin. Spectroscopic characterization techniques such as IR, 1H NMR, and 13C NMR were employed to confirm the structures of the isolated compounds. Pharmacological assessments in experimental rat models were conducted to evaluate the neuroprotective effects of the extract against cognitive decline associated with Alzheimer's disease. The findings revealed significant improvements in memory retention and cognitive function among treated subjects, with no signs of toxicity observed at the tested doses. This study highlights the potential of Leucaena leucocephala as a natural therapeutic agent for enhancing cognitive health and offers a promising alternative to conventional treatments for neurodegenerative diseases.

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