

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202331039244 A

(19) INDIA

(22) Date of filing of Application :08/06/2023

(43) Publication Date : 06/10/2023

(54) Title of the invention : A GREEN DEMULSIFIER FOR APPLICATION IN THE PETROLEUM INDUSTRY AND A PROCESS FOR THE PREPARATION THEREOF

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Filing Date	:NA	Address of Applicant : NA
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(62) Divisional to Application Number	:NA	-----
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(57) Abstract :

This present invention relates to provide natural, biodegradable, green demulsifier for use in the petroleum industry and a process for the preparation thereof. The green demulsifier is derived from a natural source that is cost-effective, eco-friendly, biodegradable non-toxic and has an exceptional demulsification efficiency as compared to the existing commercial non-biodegradable demulsifiers. In addition, the demulsification process is designed, modelled, and the process variable is optimized through response surface methodology (RSM). The invention aims to mitigate the emulsion related problems in the petroleum industry as they cause many problems in the subsequent transportation and refining process, such as, causing pipeline corrosion and blockage, increasing production costs, reducing oil product quality, polluting the environment and the like.

No. of Pages : 32 No. of Claims : 11