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| <p>(51) International classification :B01D0069120000, B01D0053220000, C02F0001440000, G06Q0010060000, B01D0067000000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p> | <p>(71)Name of Applicant : 1)RVR & JC COLLEGE OF ENGINEERING Address of Applicant :RVR & JC COLLEGE OF ENGINEERING CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR PIN - 522 019 Guntur -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)DR. C. V. SUBRAHMANYAM Address of Applicant :DEPARTMENT OF CHEMICAL ENGINEERING RVR & JC COLLEGE OF ENGINEERING CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR PIN - 522 019 Guntur -----</p> <p>2)DR. P. ROHINIKUMAR Address of Applicant :DEPARTMENT OF CHEMICAL ENGINEERING RVR & JC COLLEGE OF ENGINEERING CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR PIN - 522 019 Guntur -----</p> <p>3)MRS. J. LAKSHMI JAYANTHI Address of Applicant :DEPARTMENT OF CHEMICAL ENGINEERING RVR & JC COLLEGE OF ENGINEERING CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR PIN - 522 019 Guntur -----</p> <p>4)DR. G. KAVITHA Address of Applicant :DEPARTMENT OF CHEMICAL ENGINEERING RVR & JC COLLEGE OF ENGINEERING CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR PIN - 522 019 Guntur -----</p> |
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(57) Abstract :

NOVEL MEMBRANE TECHNOLOGY FOR SELECTIVE SEPARATION OF AZEOTROPIC MIXTURES IN PHARMACEUTICAL MANUFACTURING ABSTRACT The present invention introduces an innovative membrane technology designed for the precise separation of azeotropic mixtures in pharmaceutical manufacturing processes. The membrane structure comprises a specialized selective layer, strategically tailored to possess distinct permeability properties. This enables the efficient separation of azeotropic mixtures into their constituent components based on the selective permeation characteristics of the membrane. The membrane technology, encompassing a selective layer and optional supporting layers, demonstrates heightened selectivity for specific components within azeotropic mixtures encountered in pharmaceutical production. Notably, it exhibits remarkable versatility in separating water-organic solvent mixtures, pivotal in pharmaceutical synthesis. The invention represents a significant advancement, promising enhanced efficiency and effectiveness in pharmaceutical manufacturing by facilitating precise separation of azeotropic mixtures, ultimately contributing to improved product quality and process optimization.

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