पेटेंट कार्यालय
शासकीय जर्नल

OFFICIAL JOURNAL
OF
THE PATENT OFFICE

निर्गमन सं. 47/2020	शुक्रवार	दिनांक: 20/11/2020
ISSUE NO. 47/2020	FRIDAY	DATE: 20/11/2020

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :13/11/2020

(21) Application No.202041049600 A
(43) Publication Date : 20/11/2020

(54) Title of the invention : A PROCESS OF SYNTHESIS OF POLY (NEEM TRIGLYCERIDE OIL FUMARATE) â€“MONOMER BASED POLYESTER AND PRODUCTS THEREOF

(51) International classification :A61K9/4816
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
1)DR.PAUL MONEY THARMARAJ
Address of Applicant :ASSISTANT PROFESSOR RESEARCH CENTRE AND P.G DEPARTMENT OF CHEMISTRY THIAGARAJAR COLLEGE MADURAI TAMIL NADU INDIA 625009 Tamil Nadu India
(72)**Name of Inventor :**
1)DR.PAUL MONEY THARMARAJ
2)DR.JUSTUS SHAKINA

(57) Abstract :
APPLICANT: DR.PAUL MONEY THARMARAJ TITLE: A PROCESS OF SYNTHESIS OF POLY (NEEM TRIGLYCERIDE OIL FUMARATE) â€“MONOMER BASED POLYESTER AND PRODUCTS THEREOF ABSTRACT The present invention disclose a process of synthesis of poly (neem triglyceride oil fumarate) â€“ monomer based polyester and products thereof. The process of the present invention comprises of following reaction steps; â€¢ preparation of hydroxylated neem oil comprising of mixing 100 mL of Triglyceride oil of neem oil and 100 mL of formic acid in a 1:1 ratio under vigorous stirring at 0 Â°C followed by slowly adding 30 %, 55 mL of hydrogen peroxide under continues stirring for 24 hours with temperature maintained below 35 Â°C to form a residue in which the residue is extracted thrice with 3 x 40 mL diethylether solvent and organic layer was separated and dried over anhydrous sodium sulphate and solvent was filtered and evaporated using rotaevaporator to isolate hydroxylated triglyceride oil; â€¢ preparation of poly (Neem triglyceride oil fumarate) polyester resin comprising of blending 100mL of the hydroxylated triglyceride oil with 49 gm, 0.5 mol of maleic anhydride in ambient temperature using overhead stirrer and heated to 70 oC for 2 hrs followed by adding catalytic amount of morpholine base (3-4 drops) upon vigorous blending to form poly (Neem triglyceride oil fumarate) polyester resin; â€¢ preparation of poly (neem triglyceride oil fumarate) â€“ monomer based polyester comprising of adding 10mL of the poly (Neem triglyceride oil fumarate) polyester resin with 10 mL of monomer in 1:1 equivalent ratio and treated with catalytic amount of benzoyl peroxide (60mg) as a free radical initiator and N,N-dimethylaniline (2-3 drops) as an accelerator followed by vigorous stirring for 10 min using over-head stirrer and poured in glass plate mold pre-coated with silicone oil in the size of 10 x 10 cm and after 5 hours, transparent polymer sheet comprising of poly (neem triglyceride oil fumarate) â€“monomer based polyester was peeled off from the glass plate.

No. of Pages : 19 No. of Claims : 7