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(54) Title of the invention : A PROCESS OF PREPARING NOVEL CURCUMIN-TRIAZINE BASED TRANSITION METAL COMPLEXES AND PRODUCTS THEREOF

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(57) Abstract :

APPLICANT: DR.PAUL MONEY THARMARAJ TITLE: A PROCESS OF PREPARING NOVEL CURCUMIN-TRIAZINE BASED TRANSITION METAL COMPLEXES AND PRODUCTS THEREOF ABSTRACT The present invention discloses a process of preparing anti-tubercular and anti-cancer activity exhibiting novel curcumin-triazine based transition metal complexes and products thereof. The process of the present invention comprises of following steps; a. preparing a starting compound PMHMDD comprising of reacting a mixture of curcumin and imidazole-3-carboxaldehyde in ethanol solution in presence of piperidine to form the starting compound PMHMDD; b. preparing a Ligand PPTIDM comprising of reacting a mixture of starting compound PMHMDD and 2,4-diamino-6-phenyl-1,3,5-triazine in ethanol in presence of piperidine to obtain the Ligand PPTIDM; c. preparing novel curcumin-triazine based transition metal complexes comprises of mixing the Ligand PPTIDM with a solution of anhydrous transitional metal salt solutions in the presence of ethanol to obtain the curcumin-triazine based transition metal complexes.

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

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(57) Abstract :

APPLICANT: DR.PAUL MONEY THARMARAJ TITLE: A PROCESS OF SYNTHESIS OF POLY (NEEM TRIGLYCERIDE OIL FUMARATE) α -MONOMER BASED POLYESTER AND PRODUCTS THEREOF ABSTRACT The present invention disclose a process of synthesis of poly (neem triglyceride oil fumarate) α - monomer based polyester and products thereof. The process of the present invention comprises of following reaction steps; α 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 ^\circ C followed by slowly adding 30 %, 55 mL of hydrogen peroxide under continues stirring for 24 hours with temperature maintained below 35 ^\circ 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; α 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; α preparation of poly (neem triglyceride oil fumarate) α - 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) α -monomer based polyester was peeled off from the glass plate.

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

(54) Title of the invention : A PROCESS OF SYNTHESIS OF POLY (NEEM TRIGLYCERIDE OIL FUMARATE) α -MONOMER-NANO METAL OXIDE BASED POLYESTER AND PRODUCTS THEREOF

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(57) Abstract :

APPLICANT: DR.JUSTUS SHAKINA TITLE: A PROCESS OF SYNTHESIS OF POLY (NEEM TRIGLYCERIDE OIL FUMARATE) α -MONOMER-NANO METAL OXIDE BASED POLYESTER AND PRODUCTS THEREOF ABSTRACT The present invention disclose a process of synthesis of poly (neem triglyceride oil fumarate) α -monomer-nano metal oxide based polyester and products thereof. The process comprises of following reaction steps; α preparation of hydroxylatedneem 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 ^\circ C followed by slowly adding 30 %, 55 mL of hydrogen peroxide under continues stirring for 24 hours with temperature maintained below 35 ^\circ 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; β 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 70oC 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; γ preparation of poly (neem triglyceride oil fumarate) α -monomer-nano metal oxide based polyester comprising of adding 10mL of the poly (Neem triglyceride oil fumarate) polyester resin with 10 mL of monomer and nano metal oxide in 1:0.5: 0.4ratio 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-coatedwith silicone oil in the size of 10 x 10 cm and after 5 hours, transparent polymer sheet comprising of poly (neem triglyceride oil fumarate) α -monomer-nano metal oxide based polyester was peeled off from the glass plate.

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