(22) Date of filing of Application :27/05/2022

(43) Publication Date : 03/06/2022

(54) Title of the invention : PRODUCTION OF A BIOCHEMICAL SOLUTION FOR GINGER PEEL REMOVAL BY CITRIC ACID BLEND FROM FOOD WASTE AN

 (51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date (52) Divisional to Application Number Filing Date 	:C12P0007480000, C11D0003382000, B09B0003000000, A61K0036906800, A61K0008365000 :NA :NA :NA : NA :NA :NA :NA :NA	 (71)Name of Applicant : 1)Hindusthan College of Engineering and Technology Address of Applicant :Hindusthan College of Engineering and Technology, Valley Campus, Pollachi Highway, Coimbatore, Tamilnadu, India 641032. Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.G. Jeevarathinam Address of Applicant :Associate Professor& Head /FT, Hindusthan College of Engineering and Technology, Valley Campus, Pollachi Highway, Coimbatore, Tamilnadu, India 641032. 2)Ms.T. Nivetha Address of Applicant :Assistant Professor / FT, Hindusthan College of Engineering and Technology, Valley Campus, Pollachi Highway, Coimbatore, Tamilnadu, India 641032. 3)Ms.C. S. Neethu Address of Applicant :Assistant Professor/ FT, Hindusthan College of Engineering and Technology, Valley Campus, Pollachi Highway, Coimbatore, Tamilnadu, India 641032.
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(57) Abstract :

ANNEXURE 3 The idea of the project is to find an effortless way to remove the ginger peel because of its unorganized shape. We are preparing a solution which contains some acids that make the ginger peel tender to be removed. To make this solution we opted for a biological method of obtaining acid like citric acid which will make the ginger peel soft enough. The most notable sources of citric acid are citrus fruits like lemon, lime and orange, which contains highest level of natural citric acid. Citric acid is prepared by Aspergillus Niger in a submerged fermentation using lemon peels. Pineapple waste is dried and powdered which is added to the solution that contains citric acid. As the solution mostly makes use of the waste product due to which it can be considered as waste management technique. This solution can be reused for peeling the ginger after several uses. Due to the easy peeling technique, time is conserved and on the other hand it utilizes the waste too

No. of Pages : 5 No. of Claims : 4

(22) Date of filing of Application :17/05/2022

(43) Publication Date : 17/06/2022

(54) Title of the invention : MAGNETITE EMBEDDED BIOCHAR AS NANO-SORBENT FOR EFFECTIVE ADSORPTION OF TEXTILE DYE AND THE METHOD THEROF

 (51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition t Application Number Filing Date (62) Divisional to Application Number Filing Date 	:C02F0001280000, C10B0053020000, B01J0020200000, G16C0020100000, C05D0009000000 :PCT// :01/01/1900 : NA ⁰ :NA :NA :NA :NA	 (71)Name of Applicant : (1)Hindusthan College of Engineering and Technology Address of Applicant : The Principal Hindusthan College of Engineering and Technology, Valley Campus, Pollachi Highway, Coimbatore, Tamilnadu, India – 641 032. Mobile No: +91-99620 82276 E-mail: msvasan.chem@gmail.com
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(57) Abstract :

MAGNETITE EMBEDDED BIOCHAR AS NANO-SORBENT FOR EFFECTIVE ADSORPTION OF TEXTILE DYE AND THE METHOD THEROF ABSTRACT The present invention discloses a process of magnetite embedded biochar as nano-sorbent for effective adsorption of textile dye. The nano-sorbent was synthesized by the embedment of magnetite onto the biochar obtained from Cassia auriculata for the effective adsorption of Levafix blue (LB) dye. A different instrumental technique revealed the properties of biochar and the nano-sorbent. The effect of contact time, initial dye concentration and nano-sorbent dosage on the removal of LB dye was examined. Also, out of the kinetics studies models, the best fit and highest R2 values showed that the adsorption followed pseudo-second-order kinetics. Langmuir, Freundlich and Temkin isotherm models were established for the adsorption equilibrium data and the Temkin model showed the best reliability with the experimental results with highest R2 value of 0.9915. The adsorption system was modeled using the Artificial Neural Net-work (ANN) for bio char and nano-sorbent.

No. of Pages : 29 No. of Claims : 9

(22) Date of filing of Application :14/10/2020

(43) Publication Date : 30/10/2020

(54) Title of the invention : PRODUCTION OF BIODEGRADABLE PLASTIC FROM ORGANIC FLOUR AND THE METHOD OF PREPARATION THEREOF

(51) International classification :C	C08J 1/16	(71)Name of Applicant : 1)S. KAVITHA
(31) Priority Document No :N	NA	Address of Applicant :12, P N NAGAR, KUNIYAMUTHUR,
(32) Priority Date :N	NA	COIMBATORE, TAMIL NADU, INDIA-641008. Tamil Nadu
(33) Name of priority country :N	NA	India
(86) International Application No :N	NA	(72)Name of Inventor :
Filing Date :N	NA	1)S. KAVITHA
(87) International Publication No :	NA	2)M.SEENUVASAN
(61) Patent of Addition to Application Number :	NA	3)K.SATHISH KUMAR
Filing Date :N	NA	4)K.SWATHI
(62) Divisional to Application Number :	NA	5)S.DILLWYN
Filing Date :N	NA	

(57) Abstract :

ABSTRACT OF THE INVENTION Title: Production of biodegradable plastic from organic flour and the method of preparation thereof This invention discloses the composition to prepare biodegradable plastic comprising organic flour, polymer and plasticizer. To prepare the biodegradable plastic, organic flour, polymer and plasticizer in the ratio 1:0.6:0.2 are mixed together with water base. It is further mixed with a mechanical stirrer and heated to induce polymerization reaction. The collected semisolid form is casted as a film and dried in a suitable mold to get the desired shape. The present invention produces a biodegradable plastic that can be used as a packaging material and container.

No. of Pages : 16 No. of Claims : 10

(22) Date of filing of Application :12/10/2020

(43) Publication Date : 16/10/2020

(54) Title of the invention : POLYESTER RESIN LOADED NANOCOMPOSITE MATERIAL FOR CARBON DIOXIDE SEQUESTRATION AND THE METHOD OF PRE

(51) International classification	:E21B 41/00	(71)Name of Applicant : 1) HINDUSTHAN COLLEGE OF ENGINEERING AND
(31) Priority Document No	:NA	TECHNOLOGY
(32) Priority Date	:NA	Address of Applicant :VALLEY CAMPUS, POLLACHI
(33) Name of priority country	:NA	HIGHWAY, COIMBATORE-641 032, TAMIL NADU, INDIA.
(86) International Application No	:NA	Tamil Nadu India
Filing Date :	:NA	(72)Name of Inventor :
(87) International Publication No	: NA	1)M.SEENUVASAN
(61) Patent of Addition to Application Number	:NA	2)N.SRIDHAR
Filing Date :	:NA	3)G.JEEVARATHINAM
(62) Divisional to Application Number	:NA	
Filing Date :	:NA	

(57) Abstract :

Title: Polyester resin loaded nanocomposite material for carbon dioxide sequestration and the method of preparation thereof The present invention describes the composition of the polyester resin loaded nanocomposite for carbon dioxide sequestration comprising jojoba oil containing tricaprylin, myristate, and esters of fatty acid, graphene oxide nanoparticle and hardener. To synthesize polyester from jojoba oil, three parts of the oil is mixed with one part of glycerol, 20% of methanol and phthalic anhydride followed by curing at 60°C-120°C. To synthesize the nanocomposites, the polyester synthesized from jojoba oil is mixed with a well dispersed graphene oxide nanoparticle followed by the addition of hardener and casting into respective molds. The present invention provides recyclable nanobeads for carbon dioxide, sequestration from a fluid stream.

No. of Pages : 23 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/08/2022

(43) Publication Date : 19/08/2022

(54) Title of the invention : A NEW TECHNIQUE FOR SOLID DUST REMOVAL USING TWO INLET CYCLONE SEPARATOR

 (51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date 	:B01D0045160000, B04C0009000000, B01D0045120000, B04C0005081000, B04C0005280000 :NA :NA :NA :NA :NA :NA :NA	 (71)Name of Applicant : 1)Mr. J. SATHISH Address of Applicant :Assistant Professor, Chemical Engineering, Hindusthan College of Engineering & Technology, Malumichampatti, Coimbatore District, Tamil Nadu, India-641032 2)Dr.S.SAHAYA AROCKIA SELVI 3)Dr. S. GEETHA 4)Dr.S. VIJAYALAKSHMI 5)Dr. P. MARIMUTHU 6)Mr.S. PREM 7)Dr. R. MAGUTEESWARAN 8)Mrs. P. MATHUMATHI 9)Mrs. A.THAMARAI MUTHUMANI 10)Dr. M RAJESHWARAN Name of Applicant : NA Address of Applicant : NA 7(2)Name of Inventor : 1)Mr. J. SATHISH Address of Applicant : NA 7(2)Name of Inventor : 1)Mr. J. SATHISH Address of Applicant : Assistant Professor, Chemical Engineering, Hindusthan College of Engineering & Technology, Malumichampatti, Coimbatore District, Tamil Nadu, India-641032 2)Dr.S.SAHAYA AROCKIA SELVI Address of Applicant : Associate Professor, Mathematics, St.Michael College of Engineering and Technology, Kalayarkoil, Sivaganga District, Tamilnadu, India-630551 3)Dr. S.GEETHA Address of Applicant : Associate Professor, Mathematics, St.Michael College of Engineering and Technology, Kalayarkoil, Sivaganga District, Tamilnadu, India-630551 4)Dr.S.VIJAYALAKSHMI Address of Applicant : Associate Professor, Mathematics, St.Michael College of Engineering and Technology, Guadatpatti, Dharmapuri, Tamilnadu, India-63051 4)Dr.S.VIJAYALAKSHMI Address of Applicant : Assistant Professor, Mechanical Engineering, Varuvan Vadivelan Institute of Technology, Gundalapatti, Dharmapuri, Tamil Nadu, India-630701 Tore MARIMUTHU Address of Applicant : Assistant Professor, Mechanical Engineering, Sri Raaja Raajan College of Engineering and Technology, Amaravathipudur, Sivaganga District, Tamil Nadu, India-630301 Tore MARIMUTHU Address of Applicant : Principal & Professor, Mechanic
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(57) Abstract :

Cyclone separator is the device used Tor dust removal. In contrast to the conventional design,' which only has one feed intake, the cyclone separator in this study has two inlets. The effectiveness of the cyclone separator's particle collection was examined in relation to the inclusion of a secondary intake. By giving the cyclone separator twin inlets, the centrifugal force acting on the particles was changed, changing the effectiveness of particle collection. It was created as a cyclone separator with two inlets. Its performance was examined by experiments using the particle-to-air ratio (particle concentration), the gas flow rate ratio between the two inlets, and the individual gas flow rates in each of the inlets as the parameters. The real performance of the suggested cyclone separator was seen after conducting testing, and it differed in how well it performed in collecting the particles from a gas-solid combination. The entrance gas velocity, collecting efficiency, airflow measurements, and flow rate of air were calculated to investigate the operation of a cyclone separator. The two inlet cyclone separator reveals that the dust is easily removed, centrifugal force is increased, particle collection efficiency becomes eventually quicker and so the time taken for the entire process is reduced.

No. of Pages : 14 No. of Claims : 1

(21) Application No.202241034935 A

(12) PATENT APPLICATION PUBLICATION (19) INDIA

(22) Date of filing of Application :17/06/2022

(43) Publication Date : 24/06/2022

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1) International classification	A23C0011100009, A23C0009130000, A61R0035320000,	OTHAKALMANDAPAM, COIMNATORE NM: 641012 STATE: TAMIL NADI/ COUTRY (ND) V.
6) International Application No Filing Date	IPCT//	DIF INDUJA
7) International Publication No	:NA	OF ENGINEERING AND TECHNOLOGY, REAR VALUEY CAMPOS, POLLACH HIGHWAY.
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	т.	COLLEGE OF ENGINEERING AND TECHNOLOGY, NEAR VALLEY CANEUS, NULLACH IIIOHWAY, OTHAKALMANDAPAM, COIMBATORE PIN: 641012 STATE: TAMIL NADU COUTRY: NDLN
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milk, a 75/25 mixture of buffake mit and soymik, and a 75/25 mixture of cow milk and soymik for our yoghur irrelments. In form of actures of yoghurt were investigated. We used soymik, buffake milk and soymik was combined with buffale on cow milk, autorous features of yoghurt were investigated. We used soymik, buffake milk and soymik and a 75/25 mixture of cow milk and soymik for our yoghur irrelments. In form of actidity, redox potentials, toking, fail, total animogen, ash (lotal voltive fully acids), and total amino acids, soy milk yoghurt was the feast acids. The nost acids yoghurt was mile for our yoghurt irrelments. In form to facidity, redox potentials, toking, fail, total minogen, ash (lotal voltive fully acids) was the feast acids of the poster of yoghurt was more from buffale milk. Winn sysmik is combined with buffale or cow milk to produce yoghurt, a portion of dentikel. How many fails of yoghurt was the feast acids of integer acid. It was also rich in maximated filty acids. How many System the fore milk to produce yoghurt, a portion of favour of yoghurt.

No: of Pages : 9 No: of Claims : 6

The Patent Office Journal No. 25/2022 Dated 24/06/2022

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(21) Application No.202241034935 A

(22) Date of filing of Application :17/06/2022

(43) Publication Date : 24/06/2022

(54) Title of the invention : The Effects of Blending Cow Milk with Soymilk on Yoghurt Quality

		(7) Nowe of Applicant: DIVERTING C.S. Address of Applicant: ARRETANT PROPERSOR FOOD VECTOR/LOGY HENDORSTHAN COLLEGE OF ENVIRONMENT AND VECTORSH ONLY. NEAR VALLEY CAMPUS, POLLACIT HERIWAY, OTHARALMANDAPAM, COMMANDER PROJECTORS OF SEC.
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		Nove of Applicant (NA Address of Applicant (NA (72)Name of Investor 1 INVEETING C.S Address of Applicant ARRISTART PROFESSOR PDOD FECTINGCODY MINDUSTRIAN COLLECE OF ENGINEERING AND TECHNOLOGY, MEAR VALLEY CAMPUL. POLLACID DICENSERY
(51) International classification	A23C0011100000 A23C0059130000 A0181011110000	DIRACAL SEANDARIAM, COMBRATORE FIN: 641032 STATE TAMIL NADU CONTRY, INDEAN
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		OTHAKALMANDAPAM, COMBENTURE PIN, GEROZ STATE: TAMIL POLLACSI HIGHWAS, TAMEENA 5 Addres of Appleant, ASSISTANT PROFESSOR AGRICULTURE ENGINEERING HINDLINTH AS COLLEGE OF ENGINEERING AND TECHNOLOGY, MEAR VALLEY CAMPUS, BITL ACTION HIGHWAY, OTHAK O MEND TECHNOLOGY, MEAR VALLEY CAMPUS, BITL ACTION
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