3.3.1 Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation Centre and other initiatives for the creation of transfer of knowledge/technology and the outcomes of the same are evident

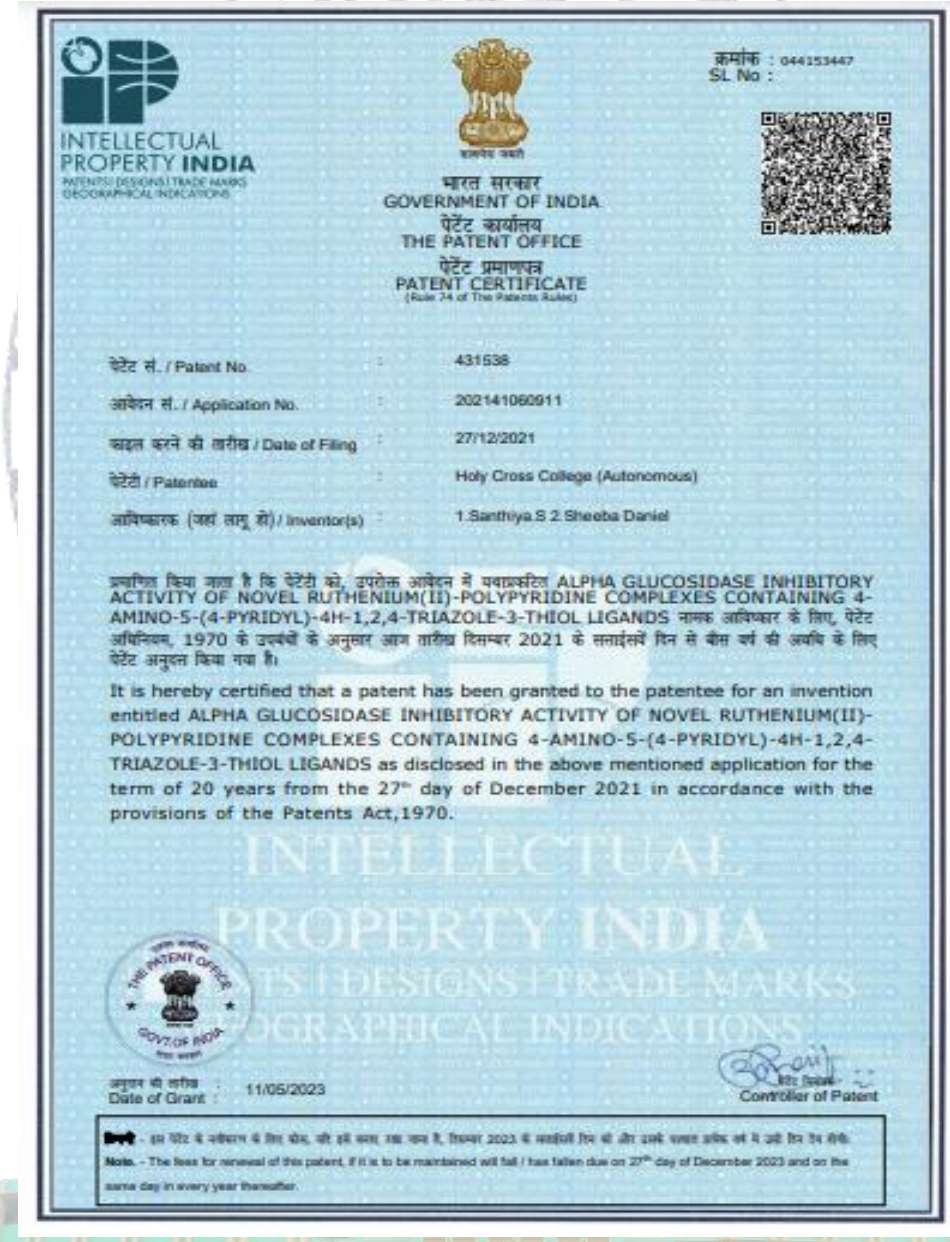
LIST OF PATENTS

Year	No. of Patents Filed	No. of Patents Published	No. of Patents Granted
2023-2024	10	21	4
2022-2023	1	4	1
2021-2022	-	4	-
2020-2021	-	1	-
2019-2020	-	-	-
Total	11	30	5

PATENT GRANTED

Utility Patent

Title of Invention	Name of the Inventors	Patent No.	Application No.	Date of Filing	Date of Grant
Alpha glucosidase inhibitory activity of novel ruthenium(II)-polypyridine complexes containing 4-amino-5-(4-pyridyl)-4H-1,2,4-triazole-3-thiol ligands	Santhiya. S and **Dr. Sheeba Daniel**	431538	202141060911	27-12-2021	11-05-2023



INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS

क्रमांक : 044153447
SL No :

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
पेटेंट प्रमाणपत्र
PATENT CERTIFICATE
(Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No.	:	431538
आवेदन सं. / Application No.	:	202141060911
फाइल करने की तारीख / Date of Filing	:	27/12/2021
पेटेंटी / Patentee	:	Holy Cross College (Autonomous)
आविष्कारक (यदि लागू हो) / Inventor(s)	:	1.Santhiya.S 2.Sheeba Daniel

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाअंकित ALPHA GLUCOSIDASE INHIBITORY ACTIVITY OF NOVEL RUTHENIUM(II)-POLYPYRIDINE COMPLEXES CONTAINING 4-AMINO-5-(4-PYRIDYL)-4H-1,2,4-TRIAZOLE-3-THIOL LIGANDS नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख दिसम्बर 2021 के सत्ताईसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled ALPHA GLUCOSIDASE INHIBITORY ACTIVITY OF NOVEL RUTHENIUM(II)-POLYPYRIDINE COMPLEXES CONTAINING 4-AMINO-5-(4-PYRIDYL)-4H-1,2,4-TRIAZOLE-3-THIOL LIGANDS as disclosed in the above mentioned application for the term of 20 years from the 27th day of December 2021 in accordance with the provisions of the Patents Act,1970.

अनुदान की तारीख : 11/05/2023
Date of Grant :

Controller of Patent

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 27th day of December 2023 and on the same day in every year thereafter.

Design Patent

Title of Invention	Name of the Inventors	Design No.	Date of Filing	Date of Grant
Water bottle	Dr. R. Krishna Priya and A. Krishna Parakash	388577-001	18-06-2023	22-05-2024
Earthworm breeding apparatus	Dr. A. Antony Selvi, Dr. S. Amutha, **Dr. X. Venci Candida, Dr. P. T. Arokya Glory** and Dr. G. Chelladurai	394385-001	03-09-2023	19-04-2024
Belt for school children Safety	Thangavelu, **Dr. Fanax Femy** and Dr. Apash Roy	6311071	18-09-2023	25-09-2023
Insect trapping device	**Dr. F. Brisca Renuga**, Dr. A. Chandrakala, Dr. D. Leelavathi and Dr. A. Antony Selvi	388134-001	11-06-2023	12-09-2023

INTELLECTUAL PROPERTY INDIA

ORIGINAL
क्रम सं/ Serial No. : 170540

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 388577-001
तारीख / Date : 18/06/2023
पारस्परिकता तारीख / Reciprocity Date* :
देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *WATER BOTTLE* से संबंधित है, का पंजीकरण, श्रेणी 09-01 में 1.Holy Cross College (Autonomous) Nagercoil 2. R. Krishna Priya 3.A. Krishna Prakash के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 09-01 in respect of the application of such design to *WATER BOTTLE* in the name of 1.Holy Cross College (Autonomous) Nagercoil 2. R. Krishna Priya 3.A. Krishna Prakash.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि :
Date of Issue : 22/05/2024

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो), जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

INTELLECTUAL PROPERTY INDIA

ORIGINAL
क्रम सं/ Serial No. : 165492

पेटेंट कार्यालय, भारत सरकार — **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | **Certificate of Registration of Design**

डिजाइन सं. / Design No. : 394385-001

तारीख / Date : 03/09/2023

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *EARTHWORM BREEDING APPARATUS* से संबंधित है, का पंजीकरण, श्रेणी 25-03 में 1.Dr. A. Antony Selvi 2. Dr. S. Amutha 3.Dr. X. Venci Candida 4.Dr. P. T. Arokya Glory 5.Dr. G. Chelladurai के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 25-03 in respect of the application of such design to *EARTHWORM BREEDING APPARATUS* in the name of 1.Dr. A. Antony Selvi 2. Dr. S. Amutha 3.Dr. X. Venci Candida 4.Dr. P. T. Arokya Glory 5.Dr. G. Chelladurai.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 19/04/2024
Date of Issue :

उन्नत की मंडिल
महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।
The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

Intellectual Property Office

Certificate of Registration for a UK Design

Design number: 6311071

Grant date: 25 September 2023

Registration date: 18 September 2023

This is to certify that,

in pursuance of and subject to the provision of Registered Designs Act 1949, the design of which a representation or specimen is attached, had been registered as of the date of registration shown above in the name of

Audrey Lye Yee Sin, Dr. Sivakumar Arumugam, Dr. ANURADHA

THANGAVELU, Dr.FANAX FEMY, Dr. Apash Roy

in respect of the application of such design to:

BELT FOR SCHOOL CHILDREN SAFETY

International Design Classification:
Version: 14-2023
Class: 29 DEVICES AND EQUIPMENT AGAINST FIRE HAZARDS, FOR ACCIDENT PREVENTION AND FOR RESCUE
Subclass: 02 DEVICES AND EQUIPMENT FOR ACCIDENT PREVENTION AND FOR RESCUE, NOT ELSEWHERE SPECIFIED

Version: 14-2023
Class: 10 CLOCKS AND WATCHES AND OTHER MEASURING INSTRUMENTS, CHECKING AND SIGNALLING INSTRUMENTS
Subclass: 05 INSTRUMENTS, APPARATUS AND DEVICES FOR CHECKING, SECURITY OR TESTING

Adam Williams

Adam Williams
Comptroller-General of Patents, Designs and Trade Marks
Intellectual Property Office
The attention of the Proprietor(s) is drawn to the important notes overleaf.

Intellectual Property Office is an operating name of the Patent Office www.gov.uk/ipo

INTELLECTUAL PROPERTY INDIA

ORIGINAL
क्रम सं/ Serial No. : 143776

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 388134-001

तारीख / Date : 11/06/2023

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *INSECT TRAPPING DEVICE* से संबंधित है, का पंजीकरण, वर्ग 22-06 में 1.Dr. F. Brisca Renuga 2. Dr. A. Chandrakala 3.Dr. D.Leelavathi 4.Dr.A.Antony Selvi 5.Dr.G.Chelladurai के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 22-06 in respect of the application of such design to *INSECT TRAPPING DEVICE* in the name of 1.Dr. F. Brisca Renuga 2. Dr. A. Chandrakala 3.Dr. D.Leelavathi 4.Dr.A.Antony Selvi 5.Dr.G.Chelladurai.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि 12/09/2023
Date of Issue

नियंत्रक महा पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वामित्व पंजीकरण की तारीख से एक वर्ष के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के नियमों के अधीन, पाँच वर्ष की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

PATENT PUBLISHED

S. No	Topic	Name of the Inventors	Application No.	Date of Filing	Date of Publication
1.	Synthesis, characterization, and biological activity of novel chelating complexes of ethylenediamine derivatives for diabetes mellitus	Ms. M. Jaya Brabha and Dr. M. Anitha Malbi	202441040722	25-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50159
2.	A novel targeted herbal drug delivery system utilizing 2-phenoxyethyl methacrylate from *Wedelia chinensis* for inhibiting DNA damage binding protein (DDB1) in human breast adenocarcinoma	Ms. B. Jone Magadelin and Dr. S. Ajith Sinthuja	202441040837	26-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50189
3.	A novel ruthenium(II) Chlorophenylterpyridine-chloroterpyridine complex: *In vitro* anticancer and cytotoxic potentials on breast cancerous MDA-MB-231, colon cancerous HCT-116 and normal L6 cell lines	Ms. S. Arul Mary and Dr. Sheeba Daniel	202441040845	26-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50191
4.	A novel copper-based metal-organic framework for targeted cisplatin delivery in breast cancer therapy	Ms. A.H. Hatin Betseba and Dr. Y. Christabel Shaji	202441040851	27-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50196
5.	A novel copper-based metal organic framework for targeted cisplatin delivery in breast cancer therapy utilizing copper chloride hexahydrate and benzene 1,4-dicarboxylic acid	Ms. A.H. Hatin Betseba and Dr. Y. Christabel Shaji	202441040850	27-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50195
6.	Enhanced properties of orange peel-infused	M.S. Mallika,	202441040849	27-05-2024	Published in The Patent Office

	epoxy composite for structural applications	Dr. S. Sebastiammal, and Dr. A. Lesly Fathima			Journal No. 22/2024 Dated 31/05/2024 Page No. 50194
7.	Eco-friendly concrete reinforcement: Enhancing sustainability with sodium acetate-treated coir fibre	Ms. J. Mridula Pearly, Dr. R. Krishna Priya, Dr. A. Krishna Prakash and Dr. Siva Avudaiappan	202441040852	27-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50197
8.	Method for encapsulating *Clausena anisata* essential oil in biodegradable nanoparticles for enhanced stability and controlled release	Ms. M. Manya Das, Dr. S. Kala Vetha Kumari, Dr. J. Celin Pappa Rani, Dr. W. Vincy, Dr. A. Anami Augustus Arul, Dr. P. Leema Rose Dr. Bojaxa A. Rosy, Dr. A.R. Florence and Dr. J. Albino Wins	202441040856	27-05-2024	Published in The Patent Office Journal No. 22/2024 Dated 31/05/2024 Page No. 50199
9.	AI-based ChatGPT for English language learning and teaching apps	J. Alisha Josephine Dr. Ashutosh Singh, Prachi Priyanka, Mohammad Shah Alam Chowdhury, Dr. Naseer Ud Din Sofi, Mili Rahman, Dr.M.Kalai Nathiyal. Dr. Swati Chauhan, Dr.T. Yolila Sangtam, Dr. Prakash V.C, Dr. Mary Cisin Shemanayaki A and Dr. M. Sri Vidhya	202441038396	16-05-2024	Published in The Patent Office Journal No. 21/2024 Dated 24/05/2024 Page No. 48593
10.	A novel synthesis and characterization of multi-bioactive nickel-doped hydroxyapatite nanoparticles	Dr. S. Sebastiammal and Dr. A. Lesly Fathima	202441026941	01-04-2024	Published in The Patent Office Journal No. 15/2024 Dated 24/05/2024 Page No. 35545
11.	A novel ruthenium(II)-bis(benzimidazol-2-yl)pyridine-chlorophenyl terpyridine complex: *In*	Arul Mary S and Dr. Sheeba Daniel	202441026883	31-03-2024	Published in The Patent Office Journal No. 15/2024 Dated

	vitro anticancer and cytotoxic potentials on breast cancerous MDA-MB-231 and normal L6 cell lines				12/04/2024 Page No. 35542
12.	Method and system for transparent access to transaction charges for digital payments in the Indian banking sector	Dr. A. Martina Franciska and Dr. Sr. S. Sahayaselvi	202341050222	25-07-2023	Published in The Patent Office Journal No. 08/2024 Dated 23/02/2024 Page No. 19135
13.	A multi-layer cryptographic mass serialization and authentication engine for anti-counterfeiting	Johny Samuael Sahaya Arul, J Sahaya Arul and Dr. Jeni Chandar Padua	202341087740	21-12-2023	Published in The Patent Office Journal No. 02/2024 Dated 12/01/2024 Page No. 3515
14.	A novel method for synthesizing surfactant-assisted (PEG/CTAB) and curcumin extract-mediated monovalent (Ag^{+}) metal ion-doped hydroxyapatite nanoparticles for biomedical applications	Dr. S. Sebastiammal and Dr. A. Lesly Fathima	202341061765	14-09-2023	Published in The Patent Office Journal No. 40/2023 Dated 06/10/2023 Page No. 67003
15.	A novel method for the synthesis of magnesium-doped hydroxyapatite nanoparticles with enhanced bioactivity	Dr. S. Sebastiammal, Dr. A. Lesly Fathima and Dr. S. Jenepha Mary	202341061794	14-09-2023	Published in The Patent Office Journal No. 40/2023 Dated 06/10/2023 Page No. 67007
16.	A novel helmet attachment system: enhancing comfort, safety, and hair protection with vetiver root cooling and climate shielding	J. Mary Asha, Dr. Sr. S. Sahayaselvi, Dr. R. Krishna Priya and Dr. Sheeba Daniel	202341061764	14-09-2023	Published in The Patent Office Journal No. 40/2023 Dated 06/10/2023 Page No. 67002
17.	A novel method of extraction and characterization of hydroponically grown *Zea mays* root fibres	S. Anne Kavitha, Dr. R. Krishna Priya, A. Krishna Prakash and Siva Avudaiappan	202341061766	14-09-2023	Published in The Patent Office Journal No. 40/2023 Dated 06/10/2023 Page No. 67004

	processed by alkali treatment				
18.	A novel method for synthesizing hematite nanoplatelets(α-Fe_2O_3) and hematite-ZnO core-shell nanospindles for enhanced photocatalytic applications	Dr. M. Priya Dharshini, M.L. Ajin, J. Jebeen Moses, J. Jenima, J. Jasma Shalu, A. Antony Arokya Sangeetha Devi, E.J. Vishaka, Dr. V. Shally, Dr. A. Lesly Fathima and Dr. Sr. T. Gerardin Jayam	202341061763	14-09-2023	Published in The Patent Office Journal No. 40/2023 Dated 06/10/2023 Page No. 67001
19.	The impact of role stress on employee performance	Dr. R. Dhaneesh, Mrs R.V. Akshera Mrs. Iswarya V S Dr. S. T. Anand Dr. M. Gnana Muhila Dr. X. Maria Muthu Shanthini and Dr. J.Jani Mercybai	202341060002	06-09-2023	Published in The Patent Office Journal No. 40/2023 Dated 06/10/2023 Page No. 66816
20.	A novel method for enhancing pharmacological properties of stigmasterol through formation of inclusion complex with α-cyclodextrin	Dr. K. Francy	202341050098	25-07-2023	Published in The Patent Office Journal No. 35/2023 Dated 01/09/2023 Page No. 57453
21.	A novel method for synthesizing metal oxide nanoparticles using *Cocos Nucifera L* (baby coconut) extract as a reducing and stabilizing agent	Dr. B.T. Delma and Dr. M. Anitha Malbi	202341041289	16-06-2023	Published in The Patent Office Journal No. 27/2023 Dated 07/07/2023 Page No. 48409
22.	Analyze of why amazon shutdown online learning in India	Dr. G. Sahaya Shiny, Dr. P. Rama Krishna, Mrs. A. Rajalakshmi, Dr. R. V. Suganya, Mr. Neelapala Venkat, Dr. Sharif Mohd, Dr. Jaishankar. R,	202341000212	03-01-2023	Published in The Patent Office Journal No. 01/2023 Dated 06/01/2023 Page No. 765

		Mr. Vishwanath R, Havalappagol Mrs. Pooja Kumari Singh, Dr. M. Vetrivel, Dr. Sudipta Sahana and Mr. J. Logeshwaran			
23.	A formulation of 2D layered double hydroxide composition system for drug delivery and process thereof	Dr. Y. Christabel Shaji, Dr. Y. Brucely, Dr. G. Paulraj, Dr. C. Ramesh Kannan and Dr. M. Ganesh Karthikeyan	202241073365	18-12-2022	Published in The Patent Office Journal No. 52/2022 Dated 30/12/2022 Page No. 82965
24.	Fish growth trajectory tracking using machine learning in Precision aquaculture	Dr. X. Venci Candida, Dr. G. Chelladurai, Dr. S. Kalaimani, Dr. K. Shenkani, Dr. J. John Peter Paul	202241041650	20-07-2022	Published in The Patent Office Journal No. 33/2022 Dated 19/08/2022 Page No. 51892
25.	Intelligent green audit system: IOT based tool for carbon footprint reduction	Dr. Jeni Chandar Padua, Johny Samuael S., Sahaya Arul J. and Oswalt Manoj S.	202241045062	07-08-2022	Published in The Patent Office Journal No. 32/2022 Dated 12/08/2022 Page No. 50691
26.	Surfactant and ligand free CuO nanocoatings on fabrics and glass: water, oil and dust repellor	C.G. Jinitha Dr. S. Sonia, Dr. S. Virgin Jeba, V. Shally, Naidu Dhanpal Jayram, and Dr. S. Jenepha Mary	202241020869	07-04-2022	Published in The Patent Office Journal No. 17/2022 Dated 29/04/2022 Page No. 26601
27.	Novel method for nitrogen recovery from human urine	Dr. P. Jasmin Lena, Dr. Uma Baskar, Dr. B.Durga, Mrs. K.Renuga devi, Mrs Nebita Maria Jarrett, Mrs. D. Sophia, Ms. S. Anupriya, Mrs. R.Anuradha, Dr. J. Albino Wins, Dr. N. Supraja and	202241015176	19-03-2022	Published The Patent Office Journal No. 12/2022 Dated 25/03/2022 Page No. 18196

		Dr. I.Niyas Ahamed			
28.	Machine learning based automated design of composite materials for fibber reinforced polymer	Dr. Y. Christabel Shaji, Dr. S. Ajith Sinthuja and Dr. Y. Brucely	202141059547	20-12-2021	Published in The Patent Office Journal No. 04/2022 Dated 28/01/2022 Page No. 4486
29.	*In vitro* antiproliferative, cytotoxic and apoptotic effect of ruthenium(II)-polypyridine-3-benzoyl picolinic acid complexes on SK-MEL-28 and normal L6 cell lines	Santhiya. S and Dr. Sheeba Daniel	202141037162	17-08-2021	Published in The Patent Office Journal No. 35/2021 Dated 27/08/2021 Page No. 38174
30.	An anti-cancerous nano-composition comprising a Lectin from a marine crab and its process thereof	J. Rajaselvam and Dr. Sr. S.R. Basil Rose	201941047889	22-02-2020	Published The Patent Office Journal No. 10/2021 Dated 05/03/2021 Page No. 11155

Patent Search

Invention Title	SYNTHESIS, CHARACTERIZATION, AND BIOLOGICAL ACTIVITY OF NOVEL CHELATING COMPLEXES OF ETHYLENEDIAMINE DERIVATIVES FOR DIABETES MELLITUS
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040722
Application Filing Date	25/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61P0003100000, A61B0005145000, A61K0047180000, A61P0017020000, A61K0031315000

Inventor

Name	Address	Country	Nationality
MS. M. JAYA BRABHA	Assistant Professor Department of Chemistry Annai Velankanni College, Tholayavattam.	India	India
DR. M. ANITHA MALBI	Assistant Professor Department of Chemistry Holy Cross College (Autonomous), Nagercoil.	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention introduces novel chelating complexes derived from ethylenediamine derivatives, incorporating transition metals such as Copper (Cu(II)) and Zinc (Zn(II)). These complexes, including [Cu(meen)3]2+, [Cu(pren)3]2+, [Zn(meen)2]2+, and [Zn(pren)2]2+, are specifically designed for the treatment of diabetes mellitus. By optimising bioavailability and metabolic stability, these complexes demonstrate superior potency in controlling blood glucose levels compared to existing treatments, with IC50 values of less than 10 µg/mL. The invention addresses key limitations of current therapies, offering enhanced efficacy with reduced dosage requirements and minimised adverse side effects. Additionally, the invention provides sustained therapeutic benefits over time, improving long-term disease management. Through comprehensive synthesis and formulation techniques aligned with industrial standards, this invention presents a promising new approach to diabetes management with significant improvements over existing therapies.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

The field of the present invention, focusing on synthesising and applying ethylenediamine chelating complexes as therapeutic agents, is significantly contributing to medicinal chemistry and pharmacotherapy. The design and development of chelating agents using ethylenediamine derivatives, a well-established ligand in coordination chemistry, could potentially revolutionise how we manage and control diabetes mellitus. This field, at the intersection of bioinorganic chemistry and therapeutic drug development, offers exciting innovations. In particular, integrating novel chelating complexes with essential transition metals like Copper (Cu) and Zinc (Zn) is a valuable contribution, opening up new possibilities for treating diabetes and potentially other metabolic disorders.

BACKGROUND OF INVENTION OR PRIOR ART :

Diabetes mellitus (DM) is a chronic metabolic disorder characterised by high blood sugar levels due to insulin resistance or insufficient insulin production. While widely used, the current therapies for DM, such as Acarbose, Metformin, and Sulfonylureas, have significant limitations. Acarbose, for instance, inhibits carbohydrate-digesting enzymes, lowering postprandial blood glucose levels, but often causes gastrointestinal disturbances like flatulence and diarrhoea. Metformin enhances insulin sensitivity and reduces hepatic glucose production but may cause lactic acidosis, especially in those with kidney issues. Sulfonylureas stimulate insulin secretion, but they may lead to hypoglycemia and weight gain, and their effectiveness may decrease over time as beta-cell function declines. These limitations underscore the urgent need for new, more effective treatments for diabetes.

The primary issues with current DM treatments are:

View Application Status

Patent Search

Invention Title	"A NOVEL TARGETED HERBAL DRUG DELIVERY SYSTEM UTILIZING2-PHENOXYETHYL METHACRYLATE FROM WEDELIA CHINENSIS FOR INHIBITING DNA DAMAGE BINDING PROTEIN (DDB1) IN HUMAN BREAST ADENOCARCINOMA"
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040837
Application Filing Date	26/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIOTECHNOLOGY
Classification (IPC)	A61K0036280000, A61P0035000000, A61K0045060000, C07K0016300000, A61K0031337000

Inventor

Name	Address	Country	Nationality
MS. B. JONE MAGADELIN	Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India
DR. S. AJITH SINTHUJA	Assistant Professor Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil, Tamil Nadu-629004, India	India	India

Abstract:

The present invention pertains to a novel targeted herbal drug delivery system for treating human breast adenocarcinoma. The invention utilizes 2-phenoxyethyl Methacrylate, a phytochemical extracted from the plant *Wedelia chinensis*, to inhibit DNA Damage Binding Protein 1 (DDB1). This compound uniquely binds to DDB1, involved in the nucleotide excision repair mechanism crucial for cancer progression, thereby offering a targeted therapeutic approach. The extraction method involves dissolving dry powdered leaves of *Wedelia chinensis* in 70% ethanol, followed by heating, filtration, and concentration to obtain a high-purity extract. The pharmaceutical composition enhances treatment specificity, minimizing severe side effects associated with conventional therapies such as Epirubicin, which causes non-specific DNA intercalation and cross-linking. The composition is biocompatible, reducing cytotoxic effects on normal cells and boosting native immunological responses more effectively than traditional chemotherapies. This dual-action strategy provides a proficient cancer-controlling property, offering a safer and more effective alternative for breast cancer treatment.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

The present invention pertains to a pharmaceutical innovation focusing on the development of a new drug delivery system using a target-specific herbal derivative (2-Phenoxyethyl Methacrylate) to inhibit DNA Damage Binding Protein (DDB1) in human breast adenocarcinoma. The present invention is aimed at the field of medicinal chemistry and oncology, specifically concentrating on the creation of phytochemical-based therapeutics for the treatment of cancer. The invention involves the extraction, characterization, and application of 2-Phenoxyethyl methacrylate derived from the herbal plant *Wedelia chinensis* as a targeted therapeutic agent against DNA Damage Binding Protein 1 (DDB1) in breast cancer cells. This innovation is significant due to its potential to offer a more effective and targeted approach to breast cancer treatment, thereby reducing the adverse side effects associated with traditional chemotherapy and improving patient outcomes. This invention is particularly relevant to the pharmaceutical industry for the development of novel, biocompatible cancer therapeutics that provide superior specificity and efficacy in targeting cancer cells.

BACKGROUND OF INVENTION OR PRIOR ART :

Traditional breast cancer treatments, such as chemotherapy and radiotherapy, involve the use of drugs like cyclophosphamide and methotrexate. While these treatments can be effective, they have significant limitations, including non-specific targeting and severe side effects. These therapies often damage healthy cells along with cancer cells, leading to a range of adverse effects that negatively impact patients' quality of life

View Application Status

inPASS Indian Patent Advanced Search System (http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Patent Search

Invention Title	"A NOVEL RUTHENIUM(II)-CHLOROPHENYLTERPYRIDINE-CHLOROTERPYRIDINE COMPLEX: IN VITRO ANTICANCER AND CYTOTOXIC POTENTIALS ON BREAST CANCEROUS MDA-MB-231, COLON CANCEROUS HCT-116 AND NORMAL L6 CELL LINES"
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040845
Application Filing Date	26/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61P0035000000, C12Q0001680000, A61K0031706800, A61K0031690000, G16H0030400000

Inventor

Name	Address	Country	Nationality
Ms. S. Arul Mary	Lecturer in Chemistry Department of Basic Engineering, Government Polytechnic College Nagercoil, Tamil Nadu	India	India
Dr. Sheeba Daniel	Assistant Professor Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil, Tamil Nadu-629004, India	India	India

Abstract:

The present patent specification elucidates the in vitro antiproliferative and cytotoxic properties of a novel [Ru(Cl-Ph-tpy)(Cl-tpy)]2+ complex, featuring Cl-Ph-tpy (4'-(4-chlorophenyl)-2,2':6',2?-terpyridine) and Cl-tpy (4'-chloro-2,2':6',2?-terpyridine), on MDA-MB-231 breast cancer, HCT-116 colorectal cancer, and normal living L6 cell lines. The investigation utilized direct microscopic and MTT assay methodologies, with comprehensive spectral analysis employed for complex characterization. Notably, the determined IC50 values against MDA-MB-231, HCT-116, and normal L6 cell lines were 67.72, 16.31, and 51.64 µg/mL, respectively. These findings underscore a pronounced antiproliferative effect on HCT-116 cells alongside reduced cytotoxicity on normal L6 cells. The observed dose-dependent inhibition of cell growth, as evidenced by formazan crystal formation, substantiates the compound's potential. Thus, the [Ru(Cl-Ph-tpy)(Cl-tpy)]2+ complex emerges as a promising therapeutic candidate for colon cancer treatment, as outlined in this patent specification.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

The present invention pertains to pharmaceutical compositions and therapeutic agents, specifically targeting breast and colon cancer treatment. It involves researching, developing, and assessing a newly synthesised ruthenium(II)-chlorophenylterpyridine-chloroterpyridine-based complex. The focus lies on synthesising and characterising this novel compound and its potential as an anticancer drug. The evaluation includes in vitro studies conducted on MDA-MB-231 breast cancer, HCT-116 colon cancer, and normal L6 cell lines, aiming to explore its efficacy in treating both breast and colon cancers.

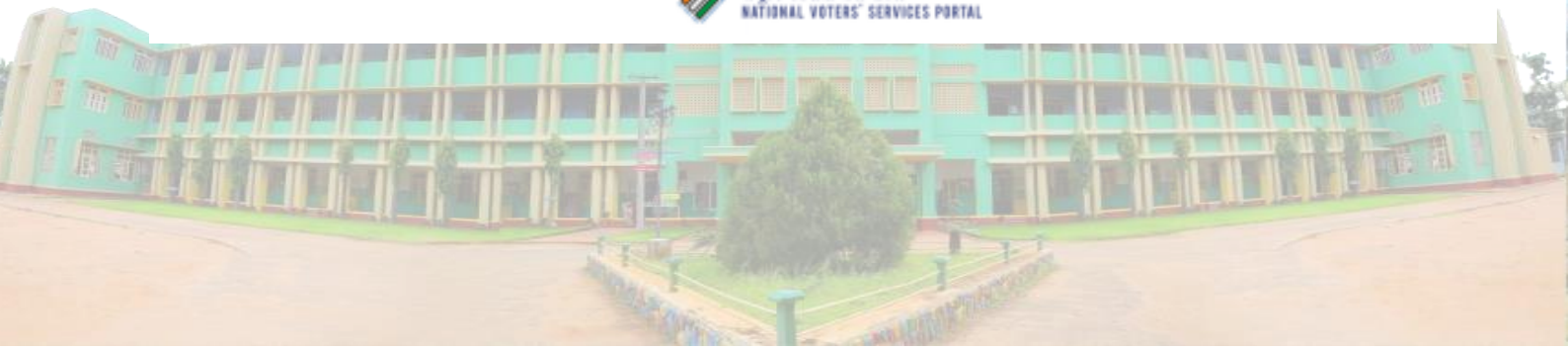
BACKGROUND OF INVENTION OR PRIOR ART

Cancer is one of the leading diseases due to its high prevalence, complexity, and dangerous rate of mortality for patient deaths around the world. Currently, breast cancer is the most prevalent form of cancer globally; accounting for 12.5 % of all newly reported annual cancer cases worldwide. Around the globe in females breast cancer is the most predominant class of cancer diagnosed, which intensifies vividly with age. Triple-negative breast cancer (TNBC) is a devastating because it rapidly spread to other parts of the body, with a high risk of earlier recession and mortality. One million females are identified with breast tumor annually and TNBC is found to be 15 - 20 % of the complete breast cancer reported. MDA-MB231 is a very aggressive and invasive triple negative breast cancer, and has limited treatment options. TNBC is characterized by lack of hormonal receptors of estrogen, progesterone and human epidermal growth factor receptor 2, making it unsuitable for hormonal therapy and suitable type for chemotherapy.

The MDA-MB-231 breast cancer, colorectal HCT-116 colon cancer and normal living L6 cell lines are chosen as a model for studying the in vitro anticancer and cytotoxic

View Application Status

राष्ट्रीय मतदाता सेवा पोर्टल
NATIONAL VOTERS' SERVICES PORTAL



Patent Search

Invention Title	A NOVEL COPPER-BASED METAL-ORGANIC FRAMEWORK FOR TARGETED CISPLATIN DELIVERY IN BREAST CANCER THERAPY
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040851
Application Filing Date	27/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61P0035000000, A61K0033243000, A61K0035280000, A61K0031704000, A61K0031282000

Inventor

Name	Address	Country	Nationality
Miss. A.H. HATIN BETSEBA	Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India
DR. Y. CHRISTABEL SHAJI	Assistant Professor Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention relates to a targeted drug delivery system for breast cancer treatment, utilizing a copper-based metal-organic framework (Cu-based MOF) synthesized from copper chloride hexahydrate and pyridine 2,6 dicarboxylic acid. The Cu-based MOF is infused with cisplatin, a widely used anticancer drug, through a simple impregnation method. The system targets explicitly breast cancer cells (MDA-MB-231), enhancing therapeutic efficacy while minimizing side effects. Key features include the Cu-based MOF's high stability and large surface area, enabling efficient drug encapsulation and controlled release. The invention offers a novel, effective, and safer alternative for cancer therapy, significantly improving traditional chemotherapy by reducing systemic toxicity and improving patient outcomes. This innovative approach is scalable, cost-effective, and adaptable for various cancer treatments.

Complete Specification

Description:FIELD OF INVENTION
This invention pertains to the fields of medicinal chemistry, pharmaceutical sciences, and oncology, focusing on advanced drug delivery systems for cancer treatment. Specifically, it relates to the design, synthesis, and application of metal-organic frameworks (MOFs) as carriers for anticancer drugs. The invention is particularly relevant to the targeted delivery of chemotherapy agents, such as cisplatin, to breast cancer cells. This targeted approach aims to enhance therapeutic efficacy, reduce side effects, and improve patient outcomes in the treatment of breast cancer. The invention's applicability extends to the development of more effective and safer cancer therapies, addressing critical challenges in oncology.
BACKGROUND OF INVENTION OR PRIOR ART
Chemotherapy remains a cornerstone of cancer treatment, but its lack of specificity often results in significant side effects. To address these issues, various drug delivery systems have been developed, including polymeric nanoparticles, micelles, dendrimers, and liposomes. Recently, metal-organic frameworks (MOFs) have emerged as promising carriers due to their high surface area, tunable pore sizes, and biocompatibility. There is a pressing need for targeted drug delivery systems that can deliver chemotherapy agents directly to cancer cells, thereby maximizing therapeutic efficacy and minimizing side effects. This invention aims to address these challenges by developing a novel copper-based MOF infused with cisplatin, specifically targeting breast cancer cells (MDA-MB-231).
Prior Art References:
1. Advanced cisplatin nanoformulations as targeted drug delivery platforms for lung carcinoma treatment: a review (02 September 2022)
? Abstract: This review discusses the use of cisplatin nanoformulations, including polymeric nanoparticles, micelles, dendrimers, and liposomes, for targeted drug

View Application Status

Patent Search

Invention Title	"A NOVEL COPPER-BASED METAL-ORGANIC FRAMEWORK FOR TARGETED CISPLATIN DELIVERY IN BREAST CANCER THERAPY UTILIZING COPPER CHLORIDE HEXAHYDRATE AND BENZENE 1,4-DICARBOXYLIC ACID"
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040850
Application Filing Date	27/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61P0035000000, A61K0033243000, A61K0047690000, A61K0047640000, A61K0009000000

Inventor

Name	Address	Country	Nationality
Miss. A.H. HATIN BETSEBA	Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India
DR. Y. CHRISTABEL SHAJI	Assistant Professor Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention pertains to targeted drug delivery systems in nanomedicine and oncology, specifically involving a copper-based metal-organic framework (MOF) designed to deliver the anticancer drug cisplatin. The MOF is synthesised using copper chloride hexahydrate and benzene 1,4 dicarboxylic acid in a 1:1 molar ratio with DMSO as the solvent through a hydrothermal method. Cisplatin is incorporated into the MOF via an impregnation technique. This novel approach enhances drug stability and bioavailability, ensures controlled release, and targets breast cancer cells (MDA-MB-231), minimising side effects and improving therapeutic efficacy. The synthesis method is scalable and cost-effective, suitable for large-scale production. This invention represents a significant advancement in cancer therapy, providing a versatile platform adaptable to other anticancer drugs and various cancer types.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

The present invention pertains to the technical field of targeted drug delivery systems within the broader domains of nanomedicine and oncology. The specific focus is on the use of metal-organic frameworks (MOFs) for delivering anticancer drugs. MOFs are a class of porous materials composed of metal ions or clusters coordinated to organic ligands, creating a framework with high surface area and tunable pore sizes. The relevance of this invention lies in its application to advanced therapeutic strategies for cancer treatment, specifically breast cancer. Targeted drug delivery systems aim to improve the efficacy and reduce the side effects of chemotherapy by directing the therapeutic agents precisely to cancer cells while sparing healthy tissues. This approach enhances drug concentration at the tumour site, thereby increasing the therapeutic index. ensures its feasibility for commercialisation and widespread use in clinical settings. The inventive step of this invention lies in the novel integration of copper chloride hexahydrate and benzene 1,4 dicarboxylic acid in a 1:1 ratio to form a copper-based MOF using DMSO as the solvent. This specific combination has not been previously documented. Additionally, incorporating cisplatin into the MOF via a simple impregnation technique is innovative. This integration provides a unique and effective means of targeted drug delivery to breast cancer cells, significantly enhancing the therapeutic efficacy of cisplatin while minimizing its toxicity to normal cells. The targeted approach, combined with the high stability and drug-loading capacity of the copper-based MOF, represents a significant advancement over existing drug delivery

View Application Status

inPASS Indian Patent Advanced Search System (http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Patent Search

Invention Title	"ENHANCED PROPERTIES OF ORANGE PEEL-INFUSED EPOXY COMPOSITE FOR STRUCTURAL APPLICATIONS"
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040849
Application Filing Date	27/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	POLYMER TECHNOLOGY
Classification (IPC)	C08K0003220000, A61K0036752000, C08L0063000000, C08G0059420000, C08J0009000000

Inventor

Name	Address	Country	Nationality
Ms. M.S. Mallika	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
Dr. S. Sebastiammal	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
Dr. A. Lesly Fathima	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention relates to an epoxy composite material enhanced with orange peel powder as a filler. Compared to pure epoxy resin, the composite demonstrates improved mechanical, thermal, and dielectric properties. Preparing the composite involves mixing epoxy resin with a hardener, dispersing orange peel powder into the resin, pouring the mixture into a mould, and curing it at room temperature, followed by oven curing. Incorporating orange peel powder, which constitutes 5-10% of the epoxy resin by weight, significantly enhances the composite's dielectric constant, reduces dielectric loss, and increases thermal stability. This eco-friendly composite utilises agricultural waste, offering a sustainable alternative to synthetic fillers and making it suitable for various industrial applications, including electronics, aerospace, automotive, and construction.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

This invention pertains to the field of advanced polymer composites, specifically focusing on the development and enhancement of epoxy resin composites through the incorporation of natural fillers. The technical field includes materials science, polymer chemistry, and sustainable materials engineering. This invention is relevant in various industrial applications where improved mechanical, thermal, and dielectric properties of epoxy composites are crucial, such as in electronics, aerospace, automotive, and construction industries. The use of natural fillers like orange peel powder addresses environmental concerns and promotes sustainability by utilizing agricultural waste to enhance composite materials.

BACKGROUND OF INVENTION OR PRIOR ART

The use of polymers, specifically epoxy resins, is widespread due to their excellent thermal, chemical, and dielectric properties. While synthetic fillers have traditionally been used to reinforce epoxy resins, there is a growing interest in natural fibers due to environmental concerns and the need for sustainable materials.

Synthetic Fillers: Synthetic fillers such as glass fibers, carbon fibers, and silica nanoparticles have been widely used to improve the mechanical and thermal properties of epoxy resins. They have proven effective in enhancing the performance of epoxy composites in various applications. However, their non-biodegradability poses significant

View Application Status

Patent Search

Invention Title	ECO-FRIENDLY CONCRETE REINFORCEMENT: ENHANCING SUSTAINABILITY WITH SODIUM ACETATE-TREATED COIR FIBRE
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040852
Application Filing Date	27/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	C04B0028020000, C04B0020000000, C08J0005040000, C04B0040000000, C04B0018140000

Inventor

Name	Address	Country	Nationality
J. Mridula Pearly	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
Dr. R. Krishna Priya	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
Dr. A. Krishna Prakash	90, Ravivarman New Street, Vadasery, Nagercoil - 1	India	India
Dr. Siva Avudaiappan	3/320 Bank Colony, 2nd Street, Narayanapuram, Madurai - 14.	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

acetate-treated coir fibres. This innovative process enhances concrete's mechanical and thermal properties, providing a sustainable alternative to synthetic fibres. The method involves collecting and preparing coir fibres, treating them with an alkali solution, followed by a sodium acetate solution, and then integrating these treated fibres into a concrete mix. The resulting concrete composite exhibits significantly improved compressive strength, thermal resistivity, and ductility compared to conventional concrete. This invention offers substantial benefits for the construction industry by promoting the use of renewable materials, reducing environmental impact, and enhancing the performance of concrete structures. The optimal reinforcement is achieved with a 2% inclusion of treated coir fibres by weight, balancing mechanical enhancement and material sustainability.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

The present invention relates to the field of construction materials, specifically focusing on eco-friendly concrete reinforcement. It pertains to developing and applying natural fibre-reinforced composites in cementitious materials. This invention is particularly relevant to sustainable building practices, offering a method to enhance concrete's mechanical and thermal properties using sodium acetate-treated coir fibres. Using these natural fibres addresses environmental concerns by reducing reliance on synthetic fibres and polymers, thereby contributing to reducing carbon emissions and promoting the use of renewable resources in the construction industry. This invention is applicable in various civil engineering and construction applications where improved strength, durability, and thermal insulation of concrete are desired.

BACKGROUND OF INVENTION OR PRIOR ART

In recent years, there has been a growing interest in the use of bio-polymeric materials due to their favourable properties. Natural fibres, also known as non-wood lignocellulose materials, are being studied as potential environmentally friendly composites that could reduce or replace synthetic fibres and polymers. These fibres are considered to be more eco-friendly and have superior qualities compared to synthetic fibres. The current research focuses on collecting and treating coir fibres to enhance

View Application Status

Patent Search

Invention Title	"METHOD FOR ENCAPSULATING CLAUSENA ANISATA ESSENTIAL OIL IN BIODEGRADABLE NANOPARTICLES FOR ENHANCED STABILITY AND CONTROLLED RELEASE"
Publication Number	22/2024
Publication Date	31/05/2024
Publication Type	INA
Application Number	202441040856
Application Filing Date	27/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61K0009510000, A61K0009500000, A61K0047360000, A23P0010300000, A61K0008920000

Inventor

Name	Address	Country	Nationality
Ms. M. Manya Das	Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. S. Kala Vetha Kumari	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. J. Celin Pappa Rani	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. W. Vincy	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. A. Anami Augustus Arul	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. P. Leema Rose	Vice-Principal Holy Cross College (Autonomous), Nagercoil	India	India
Dr. Bojaxa A. Rosy	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. A.R. Florence	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India
Dr. J. Albino Wins	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention relates to a method for encapsulating Clausena anisata essential oil within biodegradable nanoparticles, aiming to enhance the essential oil's stability, controlled release, and bioavailability for applications in pharmaceuticals, cosmetics, and food industries. The method involves dissolving the essential oil in ethanol, emulsifying it in an aqueous solution of sodium alginate containing Pluronic F-127, adding calcium chloride and sonicating the mixture, followed by adding a chitosan solution and stirring to stabilize the emulsion. The stabilized emulsion is then centrifuged to obtain the biodegradable nanoparticles. The resulting nanoparticles are characterized by their mean particle size, polydispersity index, and negative zeta potential, ensuring optimal performance. The encapsulated essential oil exhibits a controlled release mechanism with an initial burst followed by sustained release, significantly improving its stability and effectiveness. Additionally, the encapsulated essential oil demonstrates no significant cytotoxicity on normal cells, making it safe for use in medical and cosmetic products. This environmentally friendly and scalable process offers a novel and effective solution for broadening the applicability and efficacy of Clausena anisata essential oil in various industrial applications.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed

FIELD OF INVENTION

The present invention is in the field of nanotechnology and phytochemistry, specifically focusing on encapsulating essential oils derived from plants within biodegradable nanoparticles. This invention is particularly relevant to the pharmaceutical, cosmetic, and food industries, where there is a need for enhanced stability, controlled release, and improved bioavailability of bioactive compounds. By encapsulating essential oils, such as those from Clausena anisata, within biodegradable nanoparticles, the invention addresses critical challenges related to volatility, degradation, and limited solubility of essential oils, thereby broadening their applicability and effectiveness in various industrial applications.

BACKGROUND OF INVENTION OR PRIOR ART

Essential oils are volatile aromatic compounds extracted from plants. Due to their bioactive properties, they are widely used in various industries. Traditional methods of extraction, such as hydro distillation, steam distillation, and CO2 extraction, have limitations concerning yield, quality, and thermal degradation of components. The encapsulation of these oils within nanoparticles addresses these issues by improving stability, bioavailability, and controlled release.

1. Volatility and Stability: Essential oils are prone to volatilization and degradation when exposed to environmental factors such as light, heat, and oxygen.
2. Controlled Release: Existing methods do not adequately control the release of essential oils, leading to reduced efficacy and shelf-life.

View Application Status

Patent Search

Invention Title	AI-BASED CHATGPT FOR ENGLISH LANGUAGE LEARNING AND TEACHING APPS
Publication Number	21/2024
Publication Date	24/05/2024
Publication Type	INA
Application Number	202441038396
Application Filing Date	16/05/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	ELECTRONICS
Classification (IPC)	G09B0019060000, G09B0005060000, H04L0051020000, G09B0019040000, G10L0015220000

Inventor

Name	Address	Country	Nationality
J. ALISHA JOSEPHINE	ASSISTANT PROFESSOR, ENGLISH, HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL , MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI , NAGERCOIL , TAMILNADU - 629004,INDIA	India	India
Dr.ASHUTOSH SINGH	ASSISTANT PROFESSOR, ENGLISH AND FOREIGN LANGUAGE , GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR , CHHATTISGARH , 495 009, INDIA	India	India
PRACHI PRIYANKA	ASSISTANT PROFESSOR, ENGLISH, SHARDA UNIVERSITY, GREATER NOIDA, UTTAR PRADESH-201301, INDIA	India	India
MOHAMMAD SHAH ALAM CHOWDHURY	PROFESSOR, ENGLISH, DHAKA INTERNATIONAL UNIVERSITY, DHAKA- 1212 BANGLADESH	Bangladesh	India
Dr. NASEER UD DIN SOFI	ASSISTANT PROFESSOR, ENGLISH, FACULTY OF HUMANITIES AND LANGUAGES, GURU KASHI UNIVERSITY TALWANDI SABO BATHINDA PUNJAB., TALWANDI-151302, INDIA	India	India
MILI RAHMAN	ASSOCIATE PROFESSOR, ENGLISH, DHAKA INTERNATIONAL UNIVERSITY, DHAKA-1212 BANGLADESH	Bangladesh	India
Dr.M.KALAI NATHIYAL	HEAD OF THE DEPARTMENT, ENGLISH , MOHAMED SATHAK COLLEGE OF ARTS AND SCIENCE , UNIVERSITY OF MADRAS, SHOLINGANALLUR , CHENNAI – 600119, INDIA	India	India
Dr. SWATI CHAUHAN	ASSOCIATE PROFESSOR, ENGLISH, MANAV RACHNA INTERNATIONAL INSTITUTE OF RESEARCH & STUDIES, FARIDABAD (HARYANA),- 121004, INDIA	India	India
Dr.T. YOLILA SANGTAM	ASSISTANT PROFESSOR, TEACHER EDUCATION , NAGALAND UNIVERSITY, KOHIMA , NAGALAND - 797004, INDIA	India	India
Dr. PRAKASH V C	ASSISTANT PROFESSOR, ENGLISH, KRISTU JAYANTI COLLEGE - AUTONOMOUS , BENGALURU,KARNATAKA-560077, INDIA	India	India
Dr. MARY CISIN SHEMANAYAKI A	ASSISTANT PROFESSOR, ENGLISH, MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI, NAGERCOIL, TAMILNADU-629153, INDIA	India	India
Dr. M. SRI VIDHYA @ THANGALAKSHMI	ASSISTANT PROFESSOR, ENGLISH , MANONMANIAM SUNDARANAR UNIVERSITY, TIRUNELVELI 627012, INDIA	India	India

Applicant

Patent Search

Invention Title	"A NOVEL SYNTHESIS AND CHARACTERIZATION OF MULTI-BIOACTIVE NICKEL-DOPED HYDROXYAPATITE NANOPARTICLES"
Publication Number	15/2024
Publication Date	12/04/2024
Publication Type	INA
Application Number	202441026941
Application Filing Date	01/04/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61K8/24, A61L27/32, A61L27/46, A61Q11/02, B82Y30/00, B82Y5/00

Inventor

Name	Address	Country	Nationality
Dr. S. Sebastiammal	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
Dr. A. Lesly Fathima	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention pertains to the synthesis and application of nickel (Ni2+)-doped hydroxyapatite (HAp) nanoparticles (NPs) with potent antibacterial, antifungal, antioxidant, and anticancer properties. The Ni2+-doped HApNPs are prepared via a sol-gel synthesis technique, yielding hexagonally structured nanoparticles with an average size of 39.91 nm. Comprehensive characterization employing X-ray powder diffraction (XRD), Fourier transform infrared spectroscopy (FTIR), Raman spectroscopy, field-emission scanning electron microscopy (FESEM), and energy-dispersive X-ray spectroscopy (EDAX) confirms the distinctive structural and chemical attributes of the nanoparticles. In vitro investigations demonstrate the exceptional antibacterial efficacy of Ni2+-doped HApNPs against a spectrum of pathogens and noteworthy antifungal activity. These nanoparticles exhibit potent antioxidant properties and induce cytotoxic effects on cancer cells, positioning them as promising candidates for diverse biomedical applications such as orthopedic implants, drug delivery systems, and cancer therapeutics. This innovation marks a significant advancement in nanotechnology and biomedical engineering, offering novel solutions to healthcare challenges and enhancing patient outcomes.

Complete Specification

Description:describes the invention and the manner in which it is to be performed.

FIELD OF INVENTION:
The present invention pertains to the field of nanotechnology, specifically focusing on the synthesis and application of nickel (Ni2+)-doped hydroxyapatite (HAp) nanoparticles (NPs). These nanoparticles exhibit noteworthy properties, encompassing antibacterial, antifungal, antioxidant, and anticancer attributes. The invention holds particular relevance in biomedical engineering, offering advancements in materials for orthopaedic implants, drug delivery systems, and cancer therapy. This pioneering approach presents promising opportunities for tackling healthcare and biotechnology challenges, paving the way for innovative therapeutic interventions and enhancements in medical devices.
BACKGROUND OF INVENTION OR PRIOR ART :
Nanoparticles (NPs) have garnered significant attention across various fields due to their distinctive properties, offering a large surface area-to-volume ratio and customizable characteristics. In biomedical engineering, the potential of NPs to transform healthcare is evident through applications such as targeted drug delivery, diagnostic imaging, and tissue engineering.
Hydroxyapatite (HAp), a naturally occurring mineral found in complex tissues like bones and teeth, is renowned for its biocompatibility and similarity to the mineral phase in biological tissues. Researchers have explored the incorporation of metal ions into the HAp lattice to enhance its functional attributes, particularly in antibacterial and anticancer activities. Transition metals like Fe, Mn, and Co have been investigated for their ability to augment the strength and biological activity of HAp nanoparticles

View Application Status

Patent Search

Invention Title	"A NOVEL RUTHENIUM(II)-BIS(BENZIMIDAZOL-2-YL)PYRIDINE-CHLOROPHENYLTERPYRIDINE COMPLEX: IN VITRO ANTICANCER AND CYTOTOXIC POTENTIALS ON BREAST CANCEROUS MDA-MB-231 AND NORMAL L6 CELL LINES"
Publication Number	15/2024
Publication Date	12/04/2024
Publication Type	INA
Application Number	202441026883
Application Filing Date	31/03/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61K31/4184, A61P35/00, B01J31/22, B01J31/26, C07F15/00

Inventor

Name	Address	Country	Nationality
Ms. S. Arul Mary	Lecturer in Chemistry Department of Basic Engineering, Government Polytechnic College Nagercoil, Tamil Nadu	India	India
Dr. Sheeba Daniel	Assistant Professor Department of Chemistry Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention introduces a novel ruthenium(II)-benzimidazole-chlorophenyl terpyridine complex, [Ru(bbp)(Cl-Ph-tpy)]2+, which has been investigated for its potential anticancer activity against MDA-MB-231 breast cancer and normal L6 cell lines. The complex underwent thorough characterization utilizing various spectroscopic techniques. In vitro studies were conducted employing direct microscopic observation and MTT assay methods. The IC50 values of the complex against MDA-MB-231 and normal L6 cell lines were determined to be 24.35 µg/mL and 156.317 µg/mL, respectively. These findings indicate significant antiproliferative effects of the complex on breast cancer cells, with lower cytotoxicity towards normal cells. Furthermore, the complex demonstrated dose-dependent inhibition of cell growth, as evidenced by the formation of formazan crystals. Consequently, the [Ru(bbp)(Cl-Ph-tpy)]2+ complex presents promising activity against breast cancer cells and holds potential as a drug candidate for breast cancer treatment. The in vitro antiproliferative and cytotoxic potential of the novel [Ru(bbp)(Cl-Ph-tpy)]2+ complex (where bbp = 2,6-bis(benzimidazol-2-yl) pyridine and Cl-Ph-tpy = 4'-(4-chlorophenyl)-2,2':6',2?-terpyridine) against MDA-MB-231 breast cancer and normal L6 cell lines has been assessed using direct microscopic and MTT assay methods. The synthesized complex has been thoroughly characterized by spectral analysis. The IC50 values of the [Ru(bbp)(Cl-Ph-tpy)]2+ complex against the MDA-MB-231 and normal L6 cell lines were found to be 24.35 µg/mL and 156.317 µg/mL, respectively. These IC50 values indicate a significant antiproliferative effect of the synthesized complex on MDA-MB-231 cells and lower cytotoxicity towards normal L6 cells. The results demonstrate a dose-dependent percentage of growth inhibition of the cells, as evidenced by the formation of formazan crystals. Therefore, it is evident that the [Ru(bbp)(Cl-Ph-tpy)]2+ complex exhibits promising activity against breast cancer cells and is recommended as a potential drug candidate for breast cancer treatment.

Complete Specification

Description:PREAMBLE TO THE DESCRITION: The following specification particularly describes the invention and the manner in which it is to be performed.

FIELD OF INVENTION

The present invention relates to the field of pharmaceutical compositions and therapeutic agents, with a specific focus on the treatment of breast cancer. More particularly, it pertains to the development and evaluation of novel ruthenium(II)-benzimidazole-chlorophenyl terpyridine complex designed as a potential anticancer drug for the management of breast cancer. The invention encompasses the synthesis, characterization, and in vitro assessment of the complex's anticancer and cytotoxic properties against breast cancer cell lines, particularly the MDA-MB-231 cell line, as well as its impact on normal cell lines, such as the L6 cell line.

BACKGROUND OF INVENTION OR PRIOR ART :

Cancer is a widespread disease that poses a severe threat to life due to its complexity and high mortality rate. Breast cancer is the most commonly reported form of cancer worldwide, accounting for 12.5% of all newly diagnosed cases every year. Around the globe, in females, breast cancer is the most predominant class of cancer diagnosed, which intensifies vividly with age. Triple-negative breast cancer (TNBC) is devastating because it rapidly spreads to other parts of the body, with a high risk of earlier recession and mortality. One million females are identified with breast tumors annually, and TNBC is found to be 15 - 20 % of the complete breast cancer reported. MDA-MB231 is a very aggressive and invasive triple-negative breast cancer and has limited treatment options. TNBC is characterized by a lack of hormonal receptors of estrogen, progesterone and human epidermal growth factor receptor 2, making it unsuitable for hormonal therapy and a suitable type for chemotherapy. The MDA-MB-231 breast cancer and normal living L6 cell lines are chosen as a model for studying the in vitro anticancer and cytotoxic potentials of the synthesized complex using direct

View Application Status

Patent Search

Invention Title	METHOD AND SYSTEM FOR TRANSPARENT ACCESS TO TRANSACTION CHARGES FOR DIGITAL PAYMENTS IN THE INDIAN BANKING SECTOR
Publication Number	08/2024
Publication Date	23/02/2024
Publication Type	INA
Application Number	202341050222
Application Filing Date	25/07/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q0020320000, G06Q0020100000, G06Q0020020000, G06Q0020400000, G06Q0040000000

Inventor

Name	Address	Country	Nationality
Dr. A. MARTINA FRANCISKA M.Com., M. Phil., NET., Ph.D.	Assistant Professor, Department of Commerce, St. Xavier's College (Autonomous), Palayamkottai - 627002	India	India
Dr. Sr. S. SAHAYASELVI M.Com., M.Phil., NET., Ph.D.	Principal, Holy Cross College (Autonomous) Nagercoil - 629004	India	India

Applicant

Name	Address	Country	Nationality
Dr. A. MARTINA FRANCISKA M.Com., M. Phil., NET., Ph.D.	Assistant Professor, Department of Commerce, St. Xavier's College (Autonomous), Palayamkottai - 627002	India	India
Dr. Sr. S. SAHAYASELVI M.Com., M.Phil., NET., Ph.D.	Principal, Holy Cross College (Autonomous) Nagercoil - 629004	India	India

Abstract:

The present invention provides a method and system to enhance access to transaction charges for digital payments in the Indian banking sector. The proposed Banking Charges Mobile Application (App.) addresses the prevailing challenge of users lacking transparent information on transaction charges imposed by different banks for various digital transactions. This innovative solution offers a user-friendly platform listing multiple banks, including both public and private institutions, along with their corresponding transaction charges for different types of digital payments. The Mobile App offers users comprehensive and transparent information on charges for a wide range of digital transactions, encompassing bill payments, tax payments, vendor payments, phone recharges and fund transfers (NEFT, RTGS, IMPS). In-depth consideration of existing research on transaction charges and mobile payment adoption reveals barriers such as lack of trust, limited digital literacy, and high transaction charges, which discourage users from readily embracing digital payment applications. The primary objective of the proposed Mobile App is to promote digitalization in India by empowering users to make well-informed decisions based on transparent information about transaction charges. By enabling straightforward comparisons of charges across different banks, the Mobile App facilitates users in selecting the most cost-effective options for their digital transactions. The present inventions in conclusion provides the innovative Mobile Application for transparently displaying transaction charges contributes significantly to the ongoing digital transformation of the Indian banking sector. It fosters awareness, trust, and informed choices, thus promoting the widespread adoption of digital payments and advancing the nation's digital economy.

Complete Specification

DESC:PREAMBLE TO THE DESCRIPTION: The following specification particularly describes the invention and how it is to be performed

FIELD OF INVENTION

The present invention falls under the domain of Financial Technology (FinTech), with a specific emphasis on digital transactions within the Indian banking sector. It addresses the need for a comprehensive and transparent system to provide information about transaction charges levied by various banks in India. The invention is particularly relevant to the field of digital banking and aims to enhance user experience by promoting transparency and informed decision-making in digital transactions. It aligns with the Indian government's initiative to promote digitalization and contribute to the growth of India's digital economy. The invention adheres to the regulations and norms of the Indian banking and financial sector.

BACKGROUND OF THE INVENTION:

The present invention is in Financial Technology (FinTech), specifically focusing on providing transparent access to transaction charges for digital payments in the Indian banking sector. The need for such an invention arises from the lack of transparency and comprehensive comparison of transaction charges across different banks.

Patent Prior Art:

Upon a thorough search, no specific patents directly relate to providing transparent access to transaction charges for digital payments in the Indian banking sector. However, several patents related to digital payments and transaction systems exist, but none address the specific problem of transparency in transaction charges that this invention aims to solve.

Non-Patent Prior Art:

View Application Status

Patent Search

Invention Title	A MULTI-LAYER CRYPTOGRAPHIC MASS SERIALIZATION AND AUTHENTICATION ENGINE FOR ANTI-COUNTERFEITING
Publication Number	02/2024
Publication Date	12/01/2024
Publication Type	INA
Application Number	202341087740
Application Filing Date	21/12/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q0030000000, G06Q0010060000, H04L0009320000, B41M0003140000, G09F0003000000

Inventor

Name	Address	Country	Nationality
Johny Samuael Sahaya Arul	202, kumaravel street, ponnapa nadar colony, ARP Camp Road, Nagercoil-4	India	India
J Sahaya Arul	University College of Engineering Nagercoil, (Anna University Constituent College) Konam, Nagercoil, Kanyakumari District, Tamil Nadu, India.	India	India
Jeni Chandar Padua	Holy Cross College, Nagercoil, Kanyakumari District, Tamil Nadu, India.	India	India

Applicant

Name	Address	Country	Nationality
Johny Samuael Sahaya Arul	202, kumaravel street, ponnapa nadar colony, ARP Camp Road, Nagercoil-4	India	India
J Sahaya Arul	University College of Engineering Nagercoil, (Anna University Constituent College) Konam, Nagercoil, Kanyakumari District, Tamil Nadu, India.	India	India
Jeni Chandar Padua	Holy Cross College, Nagercoil, Kanyakumari District, Tamil Nadu, India.	India	India

Abstract:

The Multi-Layer Cryptographic Mass Serialization and Authentication Engine as presented in the patent is a pioneering invention poised to revolutionise the field of anti-counterfeiting. The system described herein is engineered to combat counterfeiting across diverse industries where printing is viable, offering a comprehensive solution for products spanning the entire economic spectrum. Notably, this system seamlessly integrates into existing production and packaging processes without necessitating modifications or additional equipment. The system excels in traceability. It empowers robust supply chain tracking without the need to store codes in a database, thereby enhancing transparency and accountability throughout the production and distribution process. In terms of data management, the system embraces a sustainable approach. It captures only compact reference indicators instead of overwhelming the database with extensive codes, resulting in efficient data storage and streamlined operations. this patent application introduces an anti-counterfeiting solution that combines security, traceability, speed, and sustainability. This innovation promises to redefine counterfeiting prevention across a multitude of industries, ensuring trust, authenticity, and efficiency in the supply chain.

Complete Specification

Description:COMPLETE SPECIFICATION
The following specification particularly describes the invention and the manner in which is to be performed.

TITLE OF THE INVENTION:
A MULTI-LAYER CRYPTOGRAPHIC MASS SERIALIZATION AND AUTHENTICATION ENGINE FOR ANTI-COUNTERFEITING

FIELD OF THE INVENTION
[0001] The present invention pertains to the field of mass serialization and anti-counterfeiting for any product, specifically to a Cryptographic Multi-Layer Encryption method for generating unique codes that can be applied to products as QR/Data matrix codes or NFC labels.
BACKGROUND OF THE INVENTION
[0002] Counterfeiting is a significant issue worldwide, affecting both businesses and consumers. Fake products in the market not only damage the reputation of companies but also pose substantial health and safety risks to consumers. Various methods are used to detect counterfeit products, including visual inspections, holographic labels, and serial numbers. However, these methods are not infallible, and counterfeiters often replicate them.

View Application Status

Patent Search

Invention Title	" A NOVEL METHOD FOR SYNTHESIZING SURFACTANT-ASSISTED (PEG/CTAB) AND CURCUMIN EXTRACT-MEDIATED MONOVALENT (AG+) METAL ION-DOPED HYDROXYAPATITE NANOPARTICLES FOR BIOMEDICAL APPLICATIONS"
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341061765
Application Filing Date	14/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61P0035000000, A61K0009140000, A61K0009510000, B82Y0040000000, A61K0031120000

Inventor

Name	Address	Country	Nationality
S. SEBASTIAMMAL	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
A. LESLY FATHIMA	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention describes a novel method for synthesizing surfactant-assisted (PEG/CTAB) and curcumin extract-mediated monovalent (Ag+) metal ion-doped hydroxyapatite nanoparticles is disclosed. The nanoparticles were synthesized by a co-precipitation method using PEG/CTAB as a surfactant and curcumin extract as a metal ion-doping agent. The nanoparticles were characterized by X-ray diffraction, scanning electron microscopy, and transmission electron microscopy. The cytotoxicity of the nanoparticles was evaluated against four different cancer cell lines (A549, MCF-7, HeLa) using the MTT assay. The results showed that the nanoparticles exhibited excellent cytotoxic activity against all four cancer cell lines, with IC50 values ranging from 0.1 to 1.0 µg/mL. The nanoparticles were also found to be non-toxic to normal human cells. The present invention provides a novel and effective method for the synthesis of hydroxyapatite nanoparticles with improved cytotoxicity, which has potential applications in the treatment of cancer.

Complete Specification

Description:FIELD OF INVENTION:
The invention pertains to the field of biomedical applications, particularly in the development of nanostructures for cytotoxic activity against human pathogens and cancer cells. The present invention relates to the field of biomedical applications, specifically the use of monovalent cation-doped nano hydroxyapatite for cytotoxic activity. The invention provides a novel method for synthesizing surfactant-assisted (PEG/CTAB) and curcumin extract-mediated monovalent (Ag+) metal ion-doped hydroxyapatite nanoparticles. The nanoparticles exhibit excellent cytotoxic activity against cancer cells and show potential for various biomedical applications.
BACKGROUND OF INVENTION OR PRIOR ART :
Silver-doped hydroxyapatite (HAp) nanoparticles have gained significant attention in biomedical applications, particularly in remediation towards human pathogens and cancer cells. Several research studies have focused on synthesizing silver-doped HAp nanoparticles and investigating their properties, including antibacterial, antifungal, antioxidant, and anticancer activities. Prior art research provides insights into the synthesis and characterization of silver-doped HAp nanoparticles and their potential applications.
The present invention is similar to prior art references in terms of synthesizing silver-doped HAp nanoparticles and exploring their properties. However, the unique feature of the present invention lies in the incorporation of PEG, CTAB, and curcumin extract (CE) to enhance the properties of the nanoparticles, such as biocompatibility and biodegradability.
Unique Features of the Present Invention: The present invention distinguishes itself from the prior art through the incorporation of PEG, CTAB, and curcumin into the synthesis of silver-doped HAp nanoparticles. These additives are believed to enhance the properties of the nanoparticles, such as biocompatibility, biodegradability, and

View Application Status

Patent Search

Invention Title	"A NOVEL METHOD FOR THE SYNTHESIS OF MAGNESIUM-DOPED HYDROXYAPATITE NANOPARTICLES WITH ENHANCED BIOACTIVITY"
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341061794
Application Filing Date	14/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	METALLURGY
Classification (IPC)	C04B0035447000, A61L0027320000, A61L0027120000, A61L0027580000, C01B0025320000

Inventor

Name	Address	Country	Nationality
SR. S. SEBASTIAMMAL	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
A. LESLY FATHIMA	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
S. JENEPHA MARY	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention introduces a groundbreaking method for the synthesis of magnesium (Mg2+)-doped hydroxyapatite (HAp) nanoparticles, meticulously crafted with precise stoichiometric ratios. This innovative approach harnesses a range of cost-effective methodologies, including co-precipitation, sol-gel, solid-state reaction, and microwave hydrothermal techniques. Notably, this method allows for the precise tuning of the morphology of Mg2+-doped HAp nanoparticles through the strategic application of surfactants.The choice of stabilizing agents in the synthesis process plays a pivotal role, with the stipulation that these agents remain non-toxic. Various stabilizers, such as Cetyl Trimethylammonium Bromide (CTAB), Carboxymethyl Cellulose, Polyethylene Glycol (PEG 400), and Ethylenediaminetetraacetic Acid (EDTA), have been employed to facilitate the preparation of Mg2+-doped HAp. Furthermore, this invention recognizes the growing importance of environmentally friendly practices, with a particular emphasis on "green" stabilizers known for their eco-friendly attributes, enhanced biodegradability, and reduced toxicity. These green stabilizers encompass extracts from sources such as Moringa oleifera leaves, grape seeds, bananas, oranges, tamarinds, potato peels, gum arabic, calendula flowers, and papaya leaves. They serve as versatile agents, functioning as capping, reducing, and stabilizing agents during the synthesis of Mg2+-doped HAp nanoparticles.As an exceptional novelty within this invention, the synthesis of Mg2+-doped HAp nanoparticles is mediated by Curcumin extract. This pioneering approach not only broadens the spectrum of potential stabilizing agents but also holds immense promise for elevating the biological properties of Mg2+-doped HAp nanoparticles. The incorporation of these medicinal plant extracts into the synthesis process is poised to have a transformative impact on the field of bioceramic materials.The present invention introduces an array of innovative techniques and environmentally conscious stabilizing agents for the synthesis of Mg2+-doped HAp nanoparticles. The outcomes of this research promise to revolutionize the realm of bioceramics, particularly in applications spanning orthopedics, wound healing, and biomedical coatings, with a focus on enhanced bioactivity and sustainability.

Complete Specification

Description:FIELD OF INVENTION:
The present invention pertains to the field of biomaterials and nanotechnology, specifically focusing on the synthesizing and characterization of magnesium-doped hydroxyapatite (Mg2+-doped HAp) nanoparticles. The invention encompasses novel methods for synthesizing Mg2+-doped HAp nanoparticles and explores their unique properties, with a particular emphasis on their antimicrobial, antioxidant, anticancer, and toxicity attributes. This invention bridges the realms of materials science, biotechnology, and medicine, offering valuable insights and potential applications in the biomedical field, particularly in bone implantation, regeneration, and other biological applications.

BACKGROUND OF INVENTION OR PRIOR ART :
In the realm of cutting-edge biomedical research, nanoscale biomaterials have taken center stage. Among these materials, bioceramic materials have stood out for their exceptional physical, mechanical, and biological properties. Notably, hydroxyapatite (HAp)-based bioceramic materials have gained widespread attention due to their remarkable biocompatibility and osteoconductivity.
HAp nanoparticles, with stoichiometry closely mirroring human bones, have found extensive use in bone implantation and regeneration. However, their efficacy in promoting new bone tissue formation is constrained, largely due to factors like crystallinity, crystal size, and inadequate mechanical strength in wet conditions. To overcome these limitations, researchers have explored the incorporation of foreign elements into HAp, thereby enhancing its properties. Consequently, the investigation of ionic substitution within the HAp lattice has become a crucial pursuit for optimizing its utility in various biological applications

View Application Status

Patent Search

Invention Title	" A NOVEL HELMET ATTACHMENT SYSTEM: ENHANCING COMFORT, SAFETY, AND HAIR PROTECTION WITH VETIVER ROOT COOLING AND CLIMATE SHIELDING".
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341061764
Application Filing Date	14/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	TEXTILE
Classification (IPC)	A42B0003060000, A42B0003040000, A42B0003120000, A42B0003280000, A61Q0005000000

Inventor

Name	Address	Country	Nationality
J. MARY ASHA	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
SR. S. SAHAYASELVI	Principal Holy Cross College (Autonomous), Nagercoil	India	India
R. KRISHNA PRIYA	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
SHEEBA DANIEL	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention introduces a revolutionary helmet attachment system that addresses challenges associated with conventional helmets, including hair damage, discomfort, and exposure to varying climatic conditions. The invention pioneers a novel approach by replacing the traditional hard polycarbonate helmet circumference with a circumference crafted from natural vetiver root material. This innovation not only imparts cooling effects but also enhances hair protection. Additionally, the invention incorporates a foldable polyester cover that envelops and safeguards the hair, ensuring optimal user comfort and convenience. By substituting the rigid polycarbonate helmet circumference with natural vetiver root material, the invention introduces cooling benefits and enhances hair protection, effectively addressing the discomfort and potential risks associated with conventional helmets. The foldable polyester cover further shields the hair, countering the impact of external climatic factors. The distinctive attributes and innovative solutions outlined in this invention set it apart from existing technologies, positioning it as a notable contribution to the domain of protective headgear.

Complete Specification

Description:The present invention introduces a revolutionary helmet attachment system that addresses challenges associated with conventional helmets, including hair damage, discomfort, and exposure to varying climatic conditions. The invention pioneers a novel approach by replacing the traditional hard polycarbonate helmet circumference with a circumference crafted from natural vetiver root material. This innovation not only imparts cooling effects but also enhances hair protection. Additionally, the invention incorporates a foldable polyester cover that envelops and safeguards the hair, ensuring optimal user comfort and convenience. By substituting the rigid polycarbonate helmet circumference with natural vetiver root material, the invention introduces cooling benefits and enhances hair protection, effectively addressing the discomfort and potential risks associated with conventional helmets. The foldable polyester cover further shields the hair, countering the impact of external climatic factors. The distinctive attributes and innovative solutions outlined in this invention set it apart from existing technologies, positioning it as a notable contribution to the domain of protective headgear. , Claims:CLAIMS:
We claim,
1. An innovative helmet attachment system for protective headgear, comprising:
i. A circumference crafted from vetiver root material, wherein the vetiver root material delivers cooling effects and prevents hair damage. Scientific evidence supporting vetiver root's cooling properties validates this claim.
ii. A detachable inner padding replacement infused with vetiver root material, offering enhanced cooling and odor-repelling properties. The natural odor-repelling properties of vetiver root are scientifically supported.
iii. A foldable polyester cover secured to the lower 40mm of the helmet, enveloping and safeguarding the hair from external climatic conditions. The foldable polyester

View Application Status

Patent Search

Invention Title	"A NOVEL METHOD OF EXTRACTION AND CHARACTERIZATION OF HYDROPONICALLY GROWN ZEA MAYS ROOT FIBRES PROCESSED BY ALKALI TREATMENT"
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341061766
Application Filing Date	14/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	MECHANICAL ENGINEERING
Classification (IPC)	A01G0031020000, D03D0015513000, C08L0067040000, E04C0003290000, B32B0005020000

Inventor

Name	Address	Country	Nationality
S. ANNE KAVITHA	Department of PhysicsHoly Cross College (Autonomous), Nagercoil	India	India
R. KRISHNA PRIYA	Assistant Professor,Department of Physics,Holy Cross College (Autonomous), Nagercoil.	India	India
A. KRISHNA PRAKASH	90, Ravivarman New Street, Vadasery, Nagercoil - 1	India	India
SIVA AVUDAIAPPAN	3/320 Bank Colony, 2ndStreet,Narayanapuram,Madurai - 14.	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention discloses a novel method of extraction and characterization of hydroponically grown Zea mays (Zm) root fibers processed by alkali treatment. The novel extraction method involves obtaining high-quality root fibers from the Zea mays plant through hydroponic cultivation, followed by a specific alkali treatment process to enhance their properties. The resulting fibers are subjected to comprehensive tests and analyses to evaluate their physico-chemical, structural, morphological, thermal, elemental, and mechanical properties. These fibers can be utilized as reinforcements in various composite matrices, offering a sustainable and eco-friendly alternative for the development of lightweight and durable bio-composites.

Complete Specification

Description:FIELD OF INVENTION

The present invention described herein primarily focuses on the novel method of extracting and characterizing Zea mays root fibers. The method involves hydroponic cultivation of the Zea mays plant and subsequent alkali treatment to obtain superior quality fibers with desirable properties. These fibers can be utilized as reinforcements in various composite matrices, offering a sustainable and eco-friendly alternative for the development of lightweight and durable bio-composites.

BACKGROUND OR PRIOR ART

Environmental sustainability has become a growing concern in recent years, driving the demand for novel materials that can replace synthetic plastics. Natural fibers derived from plants have gained significant interest due to their advantageous properties, including sustainability, biocompatibility, and biodegradability. These fibers have the potential to be utilized in various applications such as sheets, ropes, threads, and filaments, leading to the development of environmentally friendly products. Among the abundant biopolymers, cellulose found in natural fibers possesses several desirable characteristics. However, only a limited number of fiber materials have been successfully employed in textiles or industrial uses. Natural fibers offer several advantages over synthetic fibers, including renewability, affordability, strength, and environmental friendliness. In the field of composite materials, extensive research is being conducted to replace synthetic fibers with natural fibers, particularly in sectors such as automotive and furniture manufacturing, where mechanical properties comparable to glass fiber-reinforced composites are required.

Plant fibers have long been recognized for their favorable mechanical properties, sustainability, and versatility, making substantial contributions to various industries. Zea mays (Zm) root fibers have garnered attention as potential reinforcement materials in composite applications, leading to significant research in recent years. Building upon this background, the present innovation aims to improve the extraction and processing of fibers from Zea mays (Zm) roots by introducing alkali treatment, thereby

View Application Status

Patent Search

Invention Title	" A NOVEL METHOD FOR SYNTHESIZING HEMATITE NANOPLATELETS(A-FE2O3) AND HEMATITE-ZNO CORE-SHELL NANOSPINDLES FOR ENHANCED PHOTOCATALYTIC APPLICATIONS"
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341061763
Application Filing Date	14/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	C02F0101300000, C02F0001280000, B01J0035000000, C08L0033240000, C02F0001320000

Inventor

Name	Address	Country	Nationality
M. PRIYA DHARSHINI	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
M.L. AJIN	Assistant Professor Department of Mechanical Engineering, St Xavier's Catholic College of Engineering (Autonomous), Chunkankadai	India	India
J. JEBEEN MOSES	Assistant Professor Department of Mechanical Engineering, St Xavier's Catholic College of Engineering (Autonomous), Chunkankadai	India	India
J. JENIMA	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
J. JASMA SHALU	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
A. ANTONY AROKYA SANGEETHA DEVI	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
E.J. VISHAKA	Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
V. SHALLY	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
A. LESLY FATHIMA	Assistant Professor Department of Physics Holy Cross College (Autonomous), Nagercoil	India	India
SR. T. GERARDINJAYAM	Holy Cross College (Autonomous), Nagercoil	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention relates to the field of nanotechnology and more specifically a novel cost-effective method for synthesizing hematite nanoplatelets and hematite-ZnO core-shell nanospindles with superior performance parameters for photocatalytic applications. The present invention is related to the synthesis and characterization of hematite-based core-shell nanostructures. These nanostructures exhibit superior performance parameters, environmental friendliness, and biocompatibility, making them suitable for various photocatalytic applications. The invention aims to address the problem of removing organic contaminants, particularly dyes, from wastewater.

Complete Specification

Description:FIELD OF INVENTION:
The present invention relates to the field of nanotechnology and more specifically a novel cost-effective method for synthesizing hematite nanoplatelets and hematite-ZnO core-shell nanospindles with superior performance parameters for photocatalytic applications.

BACKGROUND OF INVENTION OR PRIOR ART :
Photocatalytic degradation of organic pollutants has been extensively studied, with a focus on the synthesis and application of hematite nanoplatelets and hematite-ZnO core-shell nanostructures.
One prior art reference discusses the synthesis and characterization of hematite nanoplatelets and their use in photocatalytic degradation of organic pollutants. However, the present invention incorporates hematite-ZnO core-shell nanostructures synthesized by ultrasonicated assisted co-precipitation, which improves performance beyond what is described in the prior art.
Another prior art reference describes the synthesis and characterization of ZnO/hematite core/shell nanostructures and their application in photocatalytic water oxidation. The present invention distinguishes itself by incorporating the use of hematite nanoplatelets and applying the synthesized nanostructures for the photodegradation of methylene blue dye, which is not mentioned in the prior art.
Additionally, a prior art reference explores the synthesis and application of hematite nanoparticles for the photocatalytic degradation of methylene blue dye. The present invention differentiates itself by incorporating hematite-ZnO core-shell nanostructures, which are not described in the prior art.

Patent Search

Invention Title	THE IMPACT OF ROLE STRESS ON EMPLOYEE PERFORMANCE
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341060002
Application Filing Date	06/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q0010060000, G06Q0010100000, G09B0019000000, A01H0001020000, A61K0031343000

Inventor

Name	Address	Country	Nationality
Dr.R.Dhaneesh	Assistant Professor, Management Studies, Amrita College of Engineering and Technology, Erachakulam, Nagercoil. Kanyakumari, Tamilnadu - 629901	India	India
Mrs R.V. Akshera	Assistant Professor, Management Studies, Amrita College of Engineering and Technology, Erachakulam, Nagercoil. Kanyakumari, Tamilnadu - 629901	India	India
Mrs. Iswarya V S	Assistant Professor, Management Studies, Amrita College of Engineering and Technology, Erachakulam, Nagercoil. Kanyakumari, Tamilnadu - 629901	India	India
Dr. S. T. Anand	Associate Professor Rohini College of Engineering and Technology Near Anjugramam JN, Kanyakumari Main Road, Palkulam, Kanyakumari, Tamil Nadu, - 629401.	India	India
Dr. M. Gnana Muhila	Assistant Professor (Commerce) Holy Cross College (Autonomous),Nagercoil Kanniyakumari District Tamil Nadu 629004	India	India
Dr. X. Maria Muthu Shanthini	Assistant Professor (Commerce) Holy Cross College (Autonomous) Nagercoil Kanniyakumari District Tamil Nadu 629004	India	India
Dr. J.Jani Mercybai	Assistant Professor Holy Cross College (Autonomous) Nagercoil Kanyakumari Tamilnadu 629004	India	India

Applicant

Name	Address	Country	Nationality
Dr.R.Dhaneesh	Assistant Professor, Management Studies, Amrita College of Engineering and Technology, Erachakulam, Nagercoil. Kanyakumari, Tamilnadu - 629901	India	India
Mrs R.V. Akshera	Assistant Professor, Management Studies, Amrita College of Engineering and Technology, Erachakulam, Nagercoil. Kanyakumari, Tamilnadu - 629901	India	India
Mrs. Iswarya V S	Assistant Professor, Management Studies, Amrita College of Engineering and Technology, Erachakulam, Nagercoil. Kanyakumari, Tamilnadu - 629901	India	India
Dr. S. T. Anand	Associate Professor Rohini College of Engineering and Technology Near Anjugramam JN, Kanyakumari Main Road, Palkulam, Kanyakumari, Tamil Nadu, - 629401.	India	India
Dr. M. Gnana Muhila	Assistant Professor (Commerce) Holy Cross College (Autonomous),Nagercoil Kanniyakumari District Tamil Nadu 629004	India	India
Dr. X. Maria Muthu Shanthini	Assistant Professor (Commerce) Holy Cross College (Autonomous) Nagercoil Kanniyakumari District Tamil Nadu 629004	India	India
Dr. J.Jani Mercybai	Assistant Professor Holy Cross College (Autonomous) Nagercoil Kanyakumari Tamilnadu 629004	India	India

Abstract:

Role stress is a part of work stress that occurs when a person is unable to do the work assigned to him. An employee may get a job based on their obvious pattern of behavior, or sometimes it may be a pattern that the employee does not expect. Role stress can occur when a person's perceived job role is unclear, very difficult, or too difficult to cope with. All employees may encounter this situation at least once in their workplace. Role stress can be divided into three types, namely role ambiguity, role conflict and role overload. Role ambiguity can occur when employees are unsure of their responsibilities for a task, including what outcome they are likely to achieve and what they are willing to do to succeed. Role conflict can occur in many forms, such as when an employee experiences conflict between their role and values, conflict between role demands and the ability to fulfill them (eg training, resources), and conflict due to the incompatibility of multiple demands. of others or between expectations and organizational policies. Thus, we can say that role ambiguity is a lack of information, while role conflict is too much conflicting information. The last category of role strain is role overload, which consists of a scenario where employees have too many responsibilities to juggle due to their limitations. skills and time constraints. a situation resulting from taking on a role or roles where more is required of him than he can handle in a given time (quantitative overload) or where he is taxed beyond his knowledge, skills and abilities (qualitative overload). Most employees do not know how to distinguish the nature of the existing role stress. This can be the main reason why they do not know the solution or it does not allow them to take correct measures to manage it. As a result, employees are unable to concentrate on their work and this is reflected in their performance. This not only affects their performance, but also begins to affect physical and psychological effects. Task analysis, job description and job specification, as well as a systematic work environment and clear definition of roles and responsibilities help employees reduce role stress and increase performance.

inPASS Indian Patent Advanced Search System (http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Patent Search

Invention Title	A NOVEL METHOD FOR ENHANCING PHARMACOLOGICAL PROPERTIES OF STIGMASTEROL THROUGH FORMATION OF INCLUSION COMPLEX WITH a-CYCLODEXTRIN
Publication Number	35/2023
Publication Date	01/09/2023
Publication Type	INA
Application Number	202341050098
Application Filing Date	25/07/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIO-CHEMISTRY
Classification (IPC)	A61P0029000000, A61P0035000000, A61K0048000000, A61K0038000000, A61K0047690000

Inventor

Name	Address	Country	Nationality
SR. K. FRANCY	Assistant Professor,Department of Chemistry,Holy Cross College (Autonomous), Nagercoil,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention relates to a novel method for enhancing the pharmacological properties of stigmasterol, a natural compound, is disclosed. The method involves forming an inclusion complex between stigmasterol and α-cyclodextrin (α-CD). The inclusion complex exhibits enhanced anti-inflammatory, antioxidant, and anti-proliferative activities compared to stigmasterol alone. The inclusion complex is also shown to be safe and effective in vitro, with reduced toxicity to normal human cells. This invention provides a valuable new tool for the development of therapeutic agents for the treatment of inflammation, oxidative stress, and cancer.

Complete Specification

Description:FIELD OF INVENTION
The present invention relates to the field of chemistry and pharmacology.
The present invention specifically pertains to a novel method for enhancing the pharmacological properties of stigmasterol through the formation of an inclusion complex with α-cyclodextrin. The inclusion complex exhibit improved solubility and bioavailability, resulting in enhanced antioxidant, anti-inflammatory, and anti-proliferative activities.
BACKROUND OF INVENTION OR PRIOR ART
Stigmasterol, a phytosterol, possesses promising pharmacological properties. However, its poor aqueous solubility limits its bioavailability and potential applications. Previous studies have explored the isolation and evaluation of various phytosterols, including stigmasterol. However, there is a lack of specific research focusing on stigmasterol isolated from Annona muricata leaves and its enhanced antioxidant activities when forming an inclusion complex with α-cyclodextrin.
The present invention offers a comprehensive analysis of prior research and highlights the unique features and advantages of this novel approach. It differentiates itself by isolating stigmasterol from Annona muricata leaves and evaluating its enhanced antioxidant activities through the formation of an inclusion complex with α-cyclodextrin. By addressing the issue of poor aqueous solubility, this innovation expands the potential applications of stigmasterol.
Numerous studies have explored the pharmacological properties of phytosterols, including stigmasterol. However, none of them specifically focused on stigmasterol isolated from Annona muricata leaves or its enhanced antioxidant activities when forming an inclusion complex with α-cyclodextrin.
Based on the analysis of prior research gaps, the present invention provides a novel contribution by isolating stigmasterol from Annona muricata leaves and

View Application Status

Patent Search

Invention Title	"A NOVEL METHOD FOR SYNTHESIZING METAL OXIDE NANOPARTICLES USING COCOS NUCIFERA L(BABY COCONUT) EXTRACT AS A REDUCING AND STABILIZING AGENT"
Publication Number	27/2023
Publication Date	07/07/2023
Publication Type	INA
Application Number	202341041289
Application Filing Date	16/06/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIOTECHNOLOGY
Classification (IPC)	A61K 089794, A61K 368890, A61Q 190000, B22F 092400, C01G 190000

Inventor

Name	Address	Country	Nationality
B.T. DELMA	Assistant Professor,Department of Chemistry,Holy Cross College (Autonomous), Nagercoil,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu- 629004, India	India	India
M. ANITHA MALBI	Assistant Professor,Department of Chemistry,Holy Cross College (Autonomous), Nagercoil,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu- 629004, India	India	India

Applicant

Name	Address	Country	Nationality
HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL	HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL,Roch Nagar, Kurisady, Nagercoil , Tamil Nadu-629004, India	India	India

Abstract:

The present invention relates to the field of nanotechnology and specifically addresses the synthesis of metal oxide nanoparticles using Cocos nucifera L extract as a reducing and stabilizing agent. The invention introduces a novel approach to nanoparticle synthesis by utilizing baby coconut extract and a simplified, chemical reagent-free method. The synthesized nanoparticles demonstrate enhanced functionality and potential applications. The invention aims to evaluate the anti-cancer activity of these nanoparticles against melanoma cells, optimize synthesis parameters for reproducible production, and assess their cytotoxicity and biocompatibility. Characterization techniques such as GC-MS analysis, UV-Vis spectroscopy, X-ray diffraction (XRD), and electron microscopy are employed to study the nanoparticles' properties. The invention presents a comprehensive and environmentally friendly approach to nanoparticle synthesis, providing valuable contributions to the field

Complete Specification

Description: FIELD OF INVENTION:
The present invention is related to the field of nanotechnology and specifically addresses the synthesis of metal oxide nanoparticles using Cocos nucifera L extract as a reducing and stabilizing agent. Furthermore, the invention evaluates the anti-cancer activity of these nanoparticles against melanoma cells.
BACKGROUND OF INVENTION OR PRIOR ART :
Nanotechnology has revolutionized various fields, including medicine, electronics, and materials science, by enabling the manipulation of matter at the atomic and molecular levels. The synthesis of nanoparticles plays a crucial role in harnessing the potential of nanotechnology. In this context, the present invention introduces a novel approach to nanoparticle synthesis, focusing on the utilization of baby coconut extract and a simplified, chemical reagent-free method. This distinctive method offers unique advantages over the prior art, enhancing the mechanism of nanoparticle synthesis and expanding the potential applications of nanotechnology.
Previous research and development in nanoparticle synthesis have explored the use of different parts of the coconut plant, such as coconut water, coconut husk, and coconut shell. These studies have investigated methods for synthesizing nanoparticles using organic solvents like ethanol for extraction and a reducing agent to facilitate the formation of nanoparticles. However, there is a need for further improvements and advancements in terms of the synthesis process, characterization techniques, and evaluation of potential applications.
Comparison with Present Invention: In contrast to previous approaches, the present invention introduces novel features that contribute to its novelty and inventiveness. Firstly, the present invention focuses on the utilization of baby coconut as the primary plant material for nanoparticle synthesis, which sets it apart from the prior art that utilizes various parts of the coconut plant. This unique choice of plant material offers distinct properties and composition, leading to the formation of nanoparticles with

View Application Status

Patent Search

Invention Title	ANALYZE OF WHY AMAZON SHUTDOWN ONLINE LEARNING IN INDIA
Publication Number	01/2023
Publication Date	06/01/2023
Publication Type	INA
Application Number	202341000212
Application Filing Date	03/01/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q0050200000, G10L0025510000, G06Q0030060000, A61K0036740000, G06F0009500000

Inventor

Name	Address	Country	Nationality
Dr. G. Sahaya Shiny	Assistant Professor, Holy Cross College (Autonomous), Nagercoil - 629004, Tamilnadu, India	India	India
Dr. P. Rama Krishna	Professor& Hod, Department of Management Science, SASI Institute of Technology & Engineering, Tadepalligudem – 534101, Andhra Pradesh, India	India	India
Mrs. A. Rajalakshmi	Assistant Professor, MBA, Dr.SNS Rajalakshmi College of Arts And Science (Autonomous), Coimbatore - 641049, Tamilnadu, India	India	India
Dr. R. V. Suganya	Assistant Professor, Commerce, Vels Institute of Science Technology And Advanced Studies (Vistas), Pallavaram, Chennai – 600117, Tamilnadu, India	India	India
Mr. Neelapala Venkat	Assistant Professor, Department of Management Science, SASI Institute of Technology & Engineering, Tadepalligudem – 534101, Andhra Pradesh, India	India	India
Dr. Sharif Mohd	Assistant Professor (GF), Department of Commerce, Shivaji College, University of Delhi, Delhi, India	India	India
Dr. Jaishankar. R	Assistant Professor, Management, Sri Ramakrishna College of Arts And Science, Coimbatore - 641037, Tamilnadu, India	India	India
Mr. Vishwanath R Havalappagol	Assistant Professor, MBA, VTU, Chikkaballapur - 562101, Karnataka, India	India	India
Mrs. Pooja Kumari Singh	Assistant Professor, FIMT- School of Information & Technology, Fairfield Institute of Management & Technology, New Delhi – 110037, India	India	India
Dr. M. Vetrivel	Associate Professor, Commerce, Vels University (Vistas), Chennai - 600117, Tamilnadu, India	India	India
Dr. Sudipta Sahana	Associate Professor, CSE, University of Engineering & Management, Kolkata - 700160, West Bengal, India	India	India
Mr. J Logeshwaran	Research Scholar, Department of Electronics And Communication Engineering, Sri Eshwar College of Engineering, Coimbatore, Tamil Nadu, India	India	India

Applicant

Patent Search

Invention Title	A FORMULATION OF 2D LAYERED DOUBLE HYDROXIDE COMPOSITION SYSTEM FOR DRUG DELIVERY AND PROCESS THEREOF
Publication Number	52/2022
Publication Date	30/12/2022
Publication Type	INA
Application Number	202241073365
Application Filing Date	18/12/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	A61K0047020000, G16H0020100000, A61K0009510000, A61K0041000000, B82Y0030000000

Inventor

Name	Address	Country	Nationality
Dr.Y.Christabel Shaji,	Dr.Y.Christabel Shaji, Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous). Nagercoil-4, K.K.Dist, Tamil Nadu	India	India
Dr.Y.Brucely	Dr.Y.Brucely , Associate professor ,Mechanical Engineering , SRM TRP Engineering college ,Irungalur Trichy -621105.	India	India
Dr.G.Paulraj	Dr.G.Paulraj ,Professor ,Department of Mechanical Engineering,SRM TRP Engineering college ,Irungalur Trichy -621105	India	India
Dr.C.Ramesh Kannan	Dr.C.Ramesh Kannan, Professor,Department of Mechanical Engineering,SRM TRP Engineering College,Trichy	India	India
Mr.M.Ganesh Karthikeyan	Mr.M.Ganesh Karthikeyan , Assistant professor,Department Of Mechanical Engineering SRM TRP Engineering College,TRICHY	India	India

Applicant

Name	Address	Country	Nationality
VETRIVEL AGALYA	Dr. Agalya V Professor and Associate Head R&D(IPR Cell) New Horizon College of Engineering New Horizon Knowledge Park Outer Ring Road,Near Marathalli Bellandur(P), Bangalore- 560103	India	India
Dr.Y.Christabel Shaji,	Dr.Y.Christabel Shaji, Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous). Nagercoil-4, K.K.Dist, Tamil Nadu	India	India
Dr.Y.Brucely	Dr.Y.Brucely , Associate professor ,Mechanical Engineering , SRM TRP Engineering college ,Irungalur Trichy -621105.	India	India

Abstract:

In general drug delivery system (DDS) that are sensitive to their micro environments are capable of achieving tailored medication distribution, hence reducing treatment and side effect and improving drug efficacious. In recent trend nano-technologies particularly support to develop drug delivery platforms that reduced toxicity in the pharma industries. For this purpose, several organic and inorganic materials have been manipulated at the micro and nano-medicine field. In this conventional approached the development of such synthetic nano-particles based drugs are complex synthesis and purification protocols. To overcome these issues the present innovation is processed thereof because of bio compatibility and ability to distribute the drugs in the targeted manner. 2D layered double hydroxide (LDH) nano-hydroides that have been interpolated with bioactive compounds are generated, a lot of attention in the field of nano medicine. This innovation emphasis the synthesis of pristine nitrate type (Zn2Al-LDH) by means of co-precipitation and followed by hydrothermal treatment. This invention mainly investigates the newly synthesized quercetin-LDH (QC-LDH) compound. According to the findings of verity of characterization techniques, the QC-LDH behaves as a good antioxidant material for the drug delivery system.

Complete Specification

Description:The white precipitate that had been hydrothermally treated was initially dispersed in formamide at a concentration of 1 g/100 ml and mechanically agitated for 48 hours prior to the exfoliation and reassembly procedure. The pure LDH is another name for this precipitate. In order to separate the exfoliated and suspended nanosheets, the colloidal solution was centrifuged at 2000 rpm for 5 minutes.To complete the procedure, these nanosheets were employed. LDH nanosheets were dissolved in an aqueous solution with the specified concentrations of 1.0, 1.5 and 2.0 times the anionic exchange capacity (AEC) of pristine LDH, respectively. This was done in order to examine the impact of the three concentrations on the QC's performance characteristics. Each of the following steps was carried out individually. And in order to prevent the breakdown of QC in natural conditions from unexfoliated precipitates, all of the reassembly processes had to maintained 3 hours at a temperature of 4˚C. A mixture of decarbonated water and ethanol in the ratio of 1:1 in solution was used to wash the QC-LDH nanohybrid five times before it was finally freeze-dried to remove the nitrate ions that had been attached to it and the GA ions that had not associated with it. , C , Claims:1. A formulation of 2D layered double hydroxide composition system(100) comprising:

View Application Status

Patent Search

Invention Title	FISH GROWTH TRAJECTORY TRACKING USING MACHINE LEARNING IN PRECISIONAQUACULTURE
Publication Number	33/2022
Publication Date	19/08/2022
Publication Type	INA
Application Number	202241041650
Application Filing Date	20/07/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	ELECTRONICS
Classification (IPC)	G05B0013040000, G06N0020000000, A23K0050800000, G06Q0050020000, C12M0001360000

Inventor

Name	Address	Country	Nationality
Dr. G.CHELLADURAI	ASSISTANT PROFESSOR DEPARTMENT OF ZOOLOGY G.VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), THOOTHUKUDI, TAMIL NADU 628502	India	India
Dr S.KALAIMANI	ASSISTANT PROFESSOR, PG AND RESEARCH DEPARTMENT OF ZOOLOGY, J.K.K.NATARAJA COLLEGE OF ARTS AND SCIENCE, KOMARAPALAYAM, TAMILNADU-638183.	India	India
Dr. K. SHENKANI	ASSISTANT PROFESSOR, PG AND RESEARCH DEPARTMENT OF ZOOLOGY, J.K.K.NATARAJA COLLEGE OF ARTS AND SCIENCE, KOMARAPALAYAM, TAMILNADU-638183.	India	India
Dr. X. VENCI CANDIDA	ASSISTANT PROFESSOR OF ZOOLOGY, HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL, TAMILNADU-629004	India	India
Dr. J. JOHN PETER PAUL	ASSISTANT PROFESSOR OF BOTANY, ST. XAVIER'S COLLEGE (AUTONOMOUS), PALAYAMKOTTAI, TAMIL NADU-627002	India	India

Applicant

Name	Address	Country	Nationality
Dr. G.CHELLADURAI	ASSISTANT PROFESSOR DEPARTMENT OF ZOOLOGY G.VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), THOOTHUKUDI, TAMIL NADU 628502	India	India
Dr S.KALAIMANI	ASSISTANT PROFESSOR, PG AND RESEARCH DEPARTMENT OF ZOOLOGY, J.K.K.NATARAJA COLLEGE OF ARTS AND SCIENCE, KOMARAPALAYAM, TAMILNADU-638183.	India	India
Dr. K. SHENKANI	ASSISTANT PROFESSOR, PG AND RESEARCH DEPARTMENT OF ZOOLOGY, J.K.K.NATARAJA COLLEGE OF ARTS AND SCIENCE, KOMARAPALAYAM, TAMILNADU-638183.	India	India
Dr. X. VENCI CANDIDA	ASSISTANT PROFESSOR OF ZOOLOGY, HOLY CROSS COLLEGE (AUTONOMOUS), NAGERCOIL, TAMILNADU-629004	India	India
Dr. J. JOHN PETER PAUL	ASSISTANT PROFESSOR OF BOTANY, ST. XAVIER'S COLLEGE (AUTONOMOUS), PALAYAMKOTTAI, TAMIL NADU-627002	India	India

Abstract:

ABSTRACT Fish growth trajectory tracking using Machine learning in precision aquaculture The present disclosure relates to fish growth trajectory tracking using Q-learning module under a representative Nile tilapia bioenergetic growth model (Oreochromis niloticus). Fish growth rate is difficult to estimate at it constantly changes due to complex environmental conditions. Classic model-based control approaches are error prone nonlinear couplings and interactions between various factors like temperature, dissolved oxygen making the model uncertain for the fish growth system. To solve this problem reinforcement learning control module that is the so-called Q-learning module is introduced that do not require the growth model's knowledge and the complex aquaculture condition and extrinsic factors not restrained by the Q-learning module. Q-learning algorithm is directed using the growth trajectories data to adequately replicate the real aquaculture environment and perform the growth trajectory tracking. Herein, we consider two aquaculture environments such as re-circulating aquaculture systems and open-water cage cultures to identify the control policies that optimize biomass production in these two types of industrial setups.

Patent Search

Invention Title	INTELLIGENT GREEN AUDIT SYSTEM: IOT BASED TOOL FOR CARBON FOOTPRINT REDUCTION
Publication Number	32/2022
Publication Date	12/08/2022
Publication Type	INA
Application Number	202241045062
Application Filing Date	07/08/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	B01D0053620000, A61G0010020000, C10L0001180000, F26B0025000000, C08G0063060000

Inventor

Name	Address	Country	Nationality
Oswalt Manoj S	Assistant Professor, Computer Science and Business System, Sri Krishna College of Engineering and Technology, BK Pudur, Sugunapuram East	India	India

Applicant

Name	Address	Country	Nationality
Oswalt Manoj S	Assistant Professor, Computer Science and Business System, Sri Krishna College of Engineering and Technology, BK Pudur, Sugunapuram East	India	India

Abstract:

Clean air with better oxygen levels and less carbon footprint is required for a healthy environment. Carbon dioxide exposure for an hour, even at levels as low as 1,000 ppm, can cause health problems. As high carbon dioxide emissions have become an increasingly important global issue, it is of prime importance to track, analyze and reduce the levels of Carbon dioxide in individual households and industries. Therefore, an IoT Based Intelligent Green Audit System which helps in carbon footprint calculation and reduction is proposed herewith. This proposed system incorporates the Design for Environment (DfE) Approach. This approach helps to understand the community environment better and use data effectively to plan and design an improved ambiance. The proposed system can provide real-time stratospheric analysis with the help of suitable ambient sensors and intelligent algorithms, forcing the public to take necessary environmental action and remedy as recommended by the system. This also aids the user in ensuring that their household/industry is environmentally safe, therefore protecting them from various diseases & environmental hazards.

Complete Specification

Description:The following specification particularly describes the invention and the manner in which is to be performed.

TITLE OF THE INVENTION: INTELLIGENT GREEN AUDIT SYSTEM:
IOT BASED TOOL FOR CARBON FOOTPRINT REDUCTION

FIELD OF THE INVENTION

[0001] This invention provides an Intelligent Establishment of Green Auditing for Carbon footprint reduction and provides a remedy for reducing the carbon footprint of any location.

BACKGROUND OF THE INVENTION

[0002] Climate change has become a global issue calling for newer ways to reduce carbon emissions and increase oxygen production. The concentration in the atmosphere is growing rapidly. Continued growth in the world population is yet another reason for increased gas emissions, causing changes in the atmospheric

View Application Status

FORM 5

THE PATENT ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003

DECLARATION AS TO INVENTORSHIP

[See section 10(6) and rule 13(6)]

1. NAME OF APPLICANT (S)	**Johny Samuael S.,** **Jeni Chandar Padua,** **Sahaya Arul J.,** **Oswalt Manoj S.**

hereby declare that the true and first inventor(s) of the invention disclosed in the complete specification filed in pursuance of my/our application numbered 202241045062 dated 12/08/2022 is/are

2. INVENTOR(S)

Name in Full	Nationality	Country of Residence	Address of the Applicant
Johny Samuael. S	Indian	India	SRM Institute of Science and Technology SRM Nagar, Kattankulathur, Chengalpattu District, Tamil Nadu. India. Pin- 603 203
Jeni Chandar Padua	Indian	India	Holy Cross College, Nagercoil, Kanyakumari District, Tamil Nadu, India. Pin - 629004
Sahaya Arul J	Indian	India	University College of Engineering Nagercoil, (Anna University Constituent College) Konam, Nagercoil, Kanyakumari District, Tamil Nadu, India. Pin - 629004
Oswalt Manoj S	Indian	India	Department of Computer Science and Business Systems, Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India.

Patent Search

Invention Title	SURFACTANT AND LIGAND FREE CUO NANOCOATINGS ON FABRICS AND GLASS WATER, OIL AND DUST REPELLER
Publication Number	17/2022
Publication Date	29/04/2022
Publication Type	INA
Application Number	202241020869
Application Filing Date	07/04/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	PHYSICS
Classification (IPC)	G01N0021650000, B82Y0030000000, C01G0003020000, G01N0021840000, C03C0015000000

Inventor

Name	Address	Country	Nationality
Jinitha.C.G	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India
S.Sonia	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India
Naidu Dhanpal Jayram	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India
V.Shally	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India
S.Virgin Jeba	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India
S.J.Jenepha Mary	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India

Applicant

Name	Address	Country	Nationality
Holy Cross College (Autonomous)	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India

Abstract:

Abstract Superhydrophobic surfaces prevent percolation of water droplets and thus render roll-off, self-cleaning, corrosion protection on the surface of glass and fabrics.The present work focuses on facile, cost-effective fabrication of copper oxide nanoparticles to engender super-hydrophobicity for regular and irregular surfaces such as display panels, . glasses used in windows and fabric materials. Copperoxide nanostructures has been synthesised using SILAR (Successive Ionic Layered Adsorption and Reaction) process at low temperature (80°C). The synthesised compound has been analysed using XRD(X-ray Diffraction), SEM(Scanned Electron Microscopy), contact angle measurement'and SERS (Surface Enhanced Raman Spectroscopy). Structural analysis reveals the monoclinic structure of the synthesised compound.Surface investigation of CuO nanoparticles exhibits a nanoflower morphology with conical shaped edges were formed on glass substrate and spiky nanoflowers were formed on cloth substrate. Contact angle measurement proves the superhydrophobicity of CuO surfaces with a high-water contact angle of- 180° and 154° respectively for cloth and glass substrates. The oleophobicity and dust phobicity were proved and demonstrated.The surface morphology is the major factor in determining the repulsive nature of CuO thin films.

Complete Specification

CLAIM:
1. Substrates having a repulsive surface fabricated from natural cloth based material and Glass substrate.
2. The process of preparation of CuO thin films deposited on substrates (both glass and cloth) as claimed in claim 1 wherein the precursor diluted ammonia solution was prepared by mixing 4 ml of ammonia solution in 100 ml of distilled water, then the cationic precursor was prepared which consists of 0.02M copper sulphate ($CuSO_4$) complexed with diluted NH_3. Then the solution was stirred in a magnetic stirrer at room temperature for a few'minutes in order to get a transparent and well-dissolved solution. The anionic precursor was hot deionized water maintained at 80°C. During the experiment the temperature was kept constant.
3. The process of preparation of substrate according to claim 2, wherein the substrates were characterized by X ray diffraction (XRD), Scanning Electron Microscope (SEM) and Contact angle measurement for determining the structural properties, surface morphology and wettability for the selected CuO thin film coated substrates.
3. The CuO thin films produced as claimed in claim 2 by Successive fonic Layered Adsorption and Reaction (SILAR) Process. The structure of the material was confirmed from the X-ray diffraction analysis. The angle between the particle and the substrate was calculated using the contact angle measurement.
5. The structural property of the substrates claimed in claim 4 is found that the obtained diffraction peaks correspond to the monoclinic phase of copper oxide (CuO) which is well matched with the standard data (JCPDS PDF Card no. 00-036-1869) file. The deposited film for pure CuO exhibited prominent peaks at (021) and (111) which are the characteristic peak of monoclinic CuO. The mean crystallite size obtained for CuO coated in glass and cloth substrates are 8 nm and 25.79 nm respectively.
6. The analysis of surface morphology of the cloth substrate, claimed in claim 4 is done by keeping the energy of incident electron beam at 5 kV. In the SEM image of CuO

View Application Status

Patent Search

Invention Title	NOVEL METHOD FOR NITROGEN RECOVERY FROM HUMAN URINE
Publication Number	12/2022
Publication Date	25/03/2022
Publication Type	INA
Application Number	202241015176
Application Filing Date	19/03/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	CHEMICAL
Classification (IPC)	B01D0053220000, C02F0103200000, C02F0101160000, C05F0003000000, A01N0065000000

Inventor

Name	Address	Country	Nationality
Dr.P.Jasmin Lena	Head and Assistant Professor Department of Biochemistry Prince Shri Venkateshwara Arts and Science College (Affiliated to University of Madras) Chennai	India	India
Dr.Uma Baskar	Principal Prince Shri Venkateshwara Arts and Science College ,Gowrivakkam (Affiliated to University of Madras) Chennai	India	India
Dr. B.Durga	Assistant professor, Department of Biochemistry, Prince Shri Venkateshwara Arts and Science College(Affiliated to University of Madras) Chennai	India	India
Mrs. K.Renuga devi	Assistant Professor Department of Biochemistry Prince Shri Venkateshwara Arts and Science College (Affiliated to University of Madras) Chennai.	India	India
Mrs Nebita Maria Jarrett	Assistant Professor Department of Biochemistry Prince Shri Venkateshwara Arts and Science College (Affiliated to University of Madras) Chennai	India	India
Mrs. D. Sophia	Assistant Professor Department of Biochemistry Prince Shri Venkateshwara Arts and Science College (Affiliated to University of Madras) Chennai	India	India
Ms.S.Anupriya	Assistant Professor Department of Biochemistry Prince Shri Venkateshwara Arts and Science College (Affiliated to University of Madras) Chennai	India	India
Mrs.R.Anuradha	Assistant Professor Department of Chemistry Prince Shri Venkateshwara Arts and Science College (Affiliated to University of Madras) Chennai	India	India
Dr. J. Albino Wins	Assistant Professor Department of Botany Holy Cross College (Autonomous), Nagercoil. Kanyakumari District	India	India
Dr. N. Supraja,	Nanotechnology laboratory, Aacharya N G Ranga Agricultural University, Tirupati,	India	India
Dr. I.Niyas Ahamed,	Assistant Professor, PG and Research Department of Biochemistry, Sacred Heart College (Autonomous), Tirupattur. drniyasaib@gmail.com	India	India

Applicant

Patent Search

Invention Title	MACHINE LEARNING BASED AUTOMATED DESIGN OF COMPOSITE MATERIALS FOR FIBER REINFORCED POLYMER
Publication Number	04/2022
Publication Date	28/01/2022
Publication Type	INA
Application Number	202141059547
Application Filing Date	20/12/2021
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06F0030200000, G06F0030000000, G06N0020000000, B29C0070440000, G06N0005000000

Inventor

Name	Address	Country	Nationality
Dr. Y. CHRISTABEL SHAJI, Assistant Professor, Department of Chemistry, Holy Cross College	Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous), Nagercoil, Tamil Nadu, India	India	India
Dr. S. AJITH SINTHUJA, Assistant Professor, Department of Chemistry, Holy Cross College	Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous), Nagercoil, Tamil Nadu, India	India	India
Dr. Y. BRUCELY, Associate Professor, Department of Mechanical Engineering, SRM TRP Engineering College	Associate Professor, Department of Mechanical Engineering, SRM TRP Engineering College, Irungalur, Tiruchirappalli, Tamil Nadu, India	India	India

Applicant

Name	Address	Country	Nationality
Dr. Y. CHRISTABEL SHAJI, Assistant Professor, Department of Chemistry, Holy Cross College	Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous), Nagercoil, Tamil Nadu, India	India	India
Dr. S. AJITH SINTHUJA, Assistant Professor, Department of Chemistry, Holy Cross College	Assistant Professor, Department of Chemistry, Holy Cross College (Autonomous), Nagercoil, Tamil Nadu, India	India	India
Dr. Y. BRUCELY, Associate Professor, Department of Mechanical Engineering, SRM TRP Engineering College	Associate Professor, Department of Mechanical Engineering, SRM TRP Engineering College, Irungalur, Tiruchirappalli, Tamil Nadu, India	India	India

Abstract:

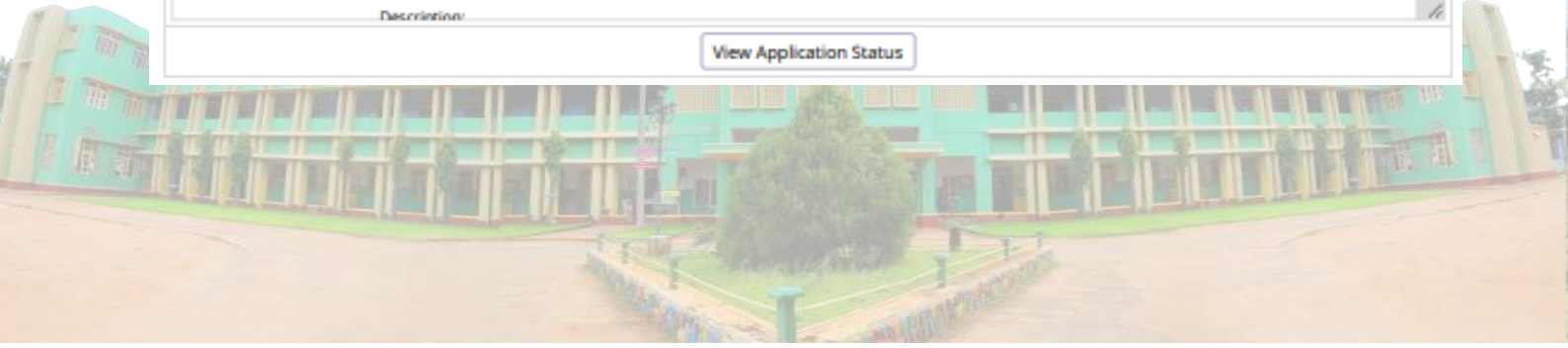
ABSTRACT Machine Learning based Automated Design of Composite Materials for Fiber Reinforced Polymer This invention is related to the field of Chemistry and Machine learning. An innovative method of development to plan, design and manufacture composite complex frameworks is disclosed. ML methods are commanding devices and it considerably facilitates this workflow. A detailed research was carried out on the functions of ML techniques on various ways to design FRP composite material.

Complete Specification

Claims:CLAIMS
We Claim :
1. A system for automated Design of Composite Materials for Fiber Reinforced Polymer, based on machine learning, comprising:
choosing innovative material compositions to adapt Fiber-reinforced polymer (FRP) composites to different applications, based on the microstructure of the components to determine the property;
an automated design structure based on machine learning and data-driven techniques;
wherein, properties of component can be utilized in the ML-based topology optimize part to create the design of optimization and wherein the machine learning methods are utilized to decrease the numeral computational iterations necessary for the procedure in optimization.

Dated this the 20th of December 2021.
Senthil Kumar B
Agent for the applicant
IN/PA-1549
Description:

View Application Status



Patent Search

Invention Title	IN VITRO ANTIPROLIFERATIVE, CYTOTOXIC AND APOPTOTIC EFFECT OF RUTHENIUM(II)-POLYPYRIDINE-3-BENZOYL PICOLINIC ACID COMPLEXES ON SK-MEL-28 AND NORMAL L6 CELL LINES
Publication Number	35/2021
Publication Date	27/08/2021
Publication Type	INA
Application Number	202141037162
Application Filing Date	17/08/2021
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIOTECHNOLOGY
Classification (IPC)	G01N0033500000, A61K0031166000, C12Q0001680000, G01N0027020000, B82Y0010000000

Inventor

Name	Address	Country	Nationality
Santhiya.S	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India
Sheeba Daniel	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India

Applicant

Name	Address	Country	Nationality
Holy Cross College (Autonomous)	Holy Cross College (Autonomous), Roch Nagar, Nagercoil, Tamilnadu, India 629004.	India	India

Abstract:

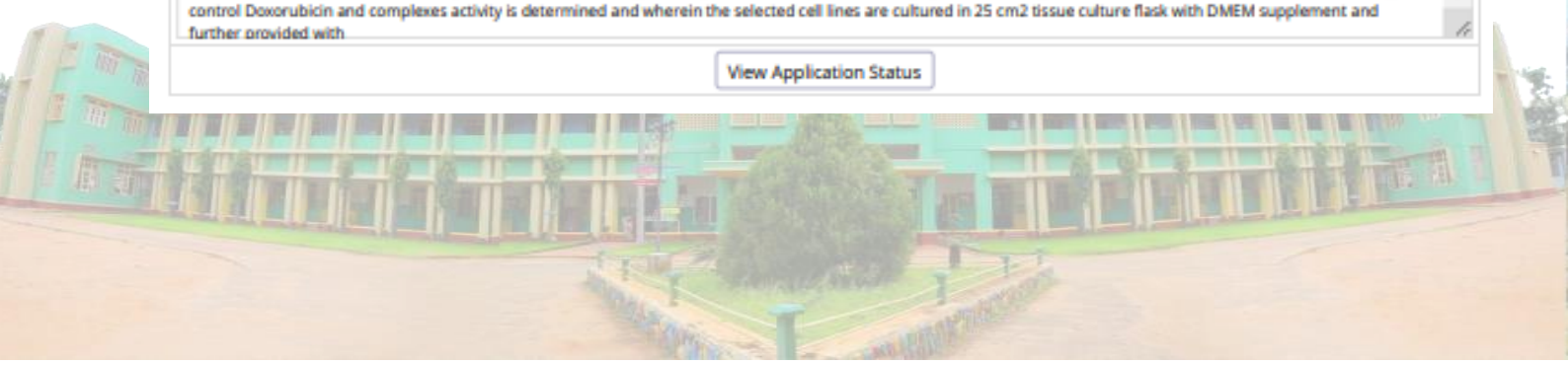
ABSTRACT The in vitro antiproliferative and cytotoxic effect of novel [Ru(bpy)2(bzpic)2]2+ (complex 1) and [Ru(phen)2(bzpic)2]2+ (complex 2) (bpy = 2,2'-bi pyridine, bzpic = 3-benzoylpicolinic acid and phen = 1,10-phenanthroline) on SK-MEL-28 cell line and normal L6 cell line has been carried out using direct microscopic and MTT assay methods. The synthesized complexes are characterized by elemental and spectral analysis. The morphological changes of cancerous and living cells at different concentrations (6.25, 12.5, -25, 50 and 100 (ig/mL) of the synthesised complexes 1 and 2 are individually determined using direct microscopic method. The percentage viability and growth inhibition of the complexes on SKMEL-28 and normal L6 cell lines at various concentrations are determined using MTT assay method. The ICso values of complexes 1 and 2 against the SK-MEL-28 cell line are found to be 39.109 and 38.323 ug/mL, whereas for normal L6 cell lines are 55.315 and 75.409 ug/mL. The ICso values predicts that complex 2 shows better antiproliferative effect and lower cytotoxicity than that of complex 1. The results revealed that the percentage of growth inhibition of the cells is based on dose-dependent manner and this is indicated by the formation of formazan crystal. The fluorescent microscopy observation clearly determines that both the synthesised complexes 1 and 2 shows late apoptosis on SK-MEL-28 cell line and early apoptosis on normal L6 cell line. Hence it is evident that complex 2 have low ICso value on cancerous cells and higher ICso value on normal living L6 cells which exhibit, better in vitro antiproliferative effect with lower cytotoxicity and therefore suggested as an anti-skin cancer drug.

Complete Specification

CLAIM:

1. A novel [Ru(bpy)2(bzpic)2]2+ complex 1 and [Ru(phen)2(bzpic)2]2+ complex 2.
2. The process of preparation of two novel complexes as claimed in claim 1 wherein the [Ru(bpy)2Cb] (1 mmol) and bzpic (2 mmol) for complex 1 and [Ru(phen)2Ch] (1 mmol) and bzpic (2 mmol) for complex 2 were individually dissolved in 20 mL of methanol and refluxed for 4 hrs under nitrogen atmosphere. The solution was then allowed to cool at room temperature and filtered to remove any insoluble impurities. A saturated solution of NH4PF6 was then added drop wise into the filtrate until a reddish brown precipitate was formed individually for both the complexes. The products were filtered, washed with cold water and diethyl ether and further dried in a vacuum desiccator. The complexes 1 and 2 was purified by column chromatography using silica gel as the adsorbent and a mixture of methanol and dichloromethane at this particular 2:8 ratio as an eluent and subsequent evaporation to recover the complexes 1 and 2 respectively. -
3. The [Ru(bpy)2(bzpic)2]2+ complex 1 and [Ru(phen)2(bzpic)2]2+complex 2 produced by the method as claimed in claim 2 by theoretical and experimental means of the characterization methods. The structure of the complexes was confirmed from the spectral data. The molar conductance and lipophilicity values of complexes 1 and 2 indicated that both the complexes were appropriate for biological studies.
4. The process of preparation of complexes according to claim 2, wherein the complex is determined by in vitro means of direct microscopic, MTT assay and fluorescent confocal microscopic methods were preferred for determining the antiproliferative, cytotoxic and apoptotic effects against the selected SK-MEL-28 and L6 cell lines against control Doxorubicin and complexes activity is determined and wherein the selected cell lines are cultured in 25 cm2 tissue culture flask with DMEM supplement and further provided with

View Application Status



Patent Search

Invention Title	An anti-cancerous nano-composition comprising a lectin from a marine crab and its process thereof.
Publication Number	10/2021
Publication Date	05/03/2021
Publication Type	INA
Application Number	201941047889
Application Filing Date	22/02/2020
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIOTECHNOLOGY
Classification (IPC)	C07K001443S000, C07K0014370000, A01K0069060000, C07F0007080000, A01N0065200000

Inventor

Name	Address	Country	Nationality
J. Rajaselvam	Department of Zoology, Holy Cross College, Roch Nagar, Kurusady Nagercoil - 629004 Tamil Nadu India	India	India
Dr. M.R. Basil Rose	Department of Zoology, Holy Cross College, Roch Nagar, Kurusady Nagercoil - 629004 Tamil Nadu India.	India	India

Applicant

Name	Address	Country	Nationality
J. Rajaselvam	Department of Zoology, Holy Cross College, Roch Nagar, Kurusady Nagercoil - 629004 Tamil Nadu India	India	India
Dr. M.R. Basil Rose	Department of Zoology, Holy Cross College, Roch Nagar, Kurusady Nagercoil - 629004 Tamil Nadu India.	India	India

Abstract:

An anti-cancerous nano-composition comprising a lectin from a marine crab and its process thereof. The present invention discloses a nano-composition comprising an anti-cancerous lectin named as OtL (Ozius tuberculosus lectin) from the hemolymph of the marine crab Ozius tuberculosus and its process thereof. Sialic acid specific lectins (OtL) are potential tools not only to identify the various microbial pathogens and malignant tumors but also to suppress the progression and arrest their growth by binding to the various sialyl epitopes found on their surface membrane. There is no cited document in the prior-art disclosing the process of extraction and purification of the fucose and sialic acid specific lectin from the Indian marine crab Ozius tuberculosus, a nano-composition comprising the same and its process thereof. Hence the present invention attempts to investigate and provide solutions to overcome those difficulties in the prior-art. The nano-composition can be used as a valuable diagnostic tool for recognizing tumour associated antigens for drug-delivery and targeting tumor cells.

Complete Specification

DESC:FIELD OF INVENTION:
The present invention relates to a nano-composition comprising a lectin from a marine crab and its process thereof. The invention particularly relates to a nano-composition comprising an anti-cancerous lectin that can bind specifically to fucose and sialic acid, from the hemolymph of a marine crab and its process thereof. More specifically, the present invention relates to a nano-composition comprising an anti-cancerous lectin named as OtL (Ozius tuberculosus lectin) from the hemolymph of the marine crab Ozius tuberculosus and its process thereof.
BACKGROUND:
Immunity to infection is mediated by the acquired (or adaptive) and the innate (or natural) immune system. Innate immunity is the ancient defense system of multicellular organisms against microbial infection and offers the main resistance to microbial pathogens within minutes, hours or days of an infection (Hoffmann et al. 1999). An immune response is the result of a cascade of multiple convergent events leading to the elimination of the signal that elicited the recognition reaction. The defense molecules include phenoloxidase, clotting factors, complement factors, lectins, protease inhibitors, antimicrobial peptides, toll receptors and other humoral factors found mainly in hemolymph, plasma and hemocytes (Iwanaga and Lee 2005).
Lectins are glycoproteins or oligomeric proteins with one or more sugar binding site(s) per sub-unit. These molecules are of non-immune origin and bind reversibly with specific sugars, thus acting as cell recognizers (Singh et al. 1999). Lectins have wide range of application in the field of cell biology, microbiology, immunology, biotechnology, glycobiology, oncology and other areas of research. The use of lectins for detecting structural variations in the glycocalyx of interacting cells is common to all forms of life, and forms the basis for their function in fertilization, development, leucocyte migration and self/ non-self-distinction

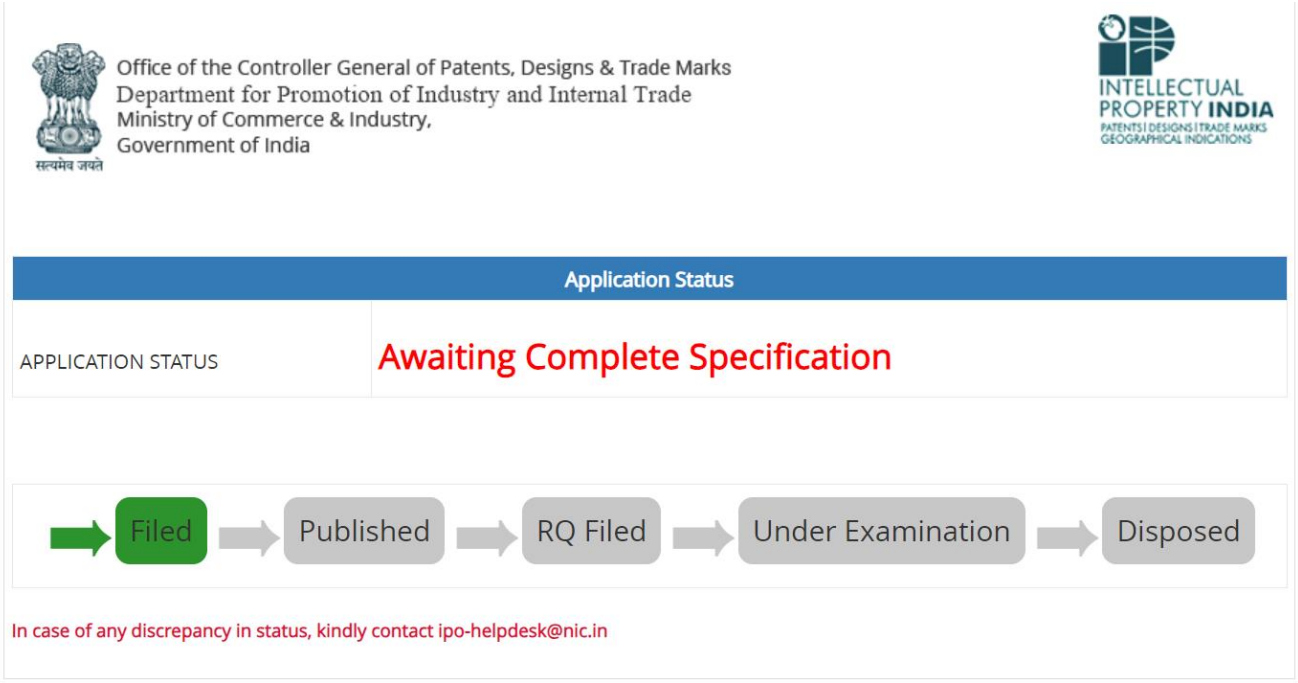
View Application Status

PATENT FILED

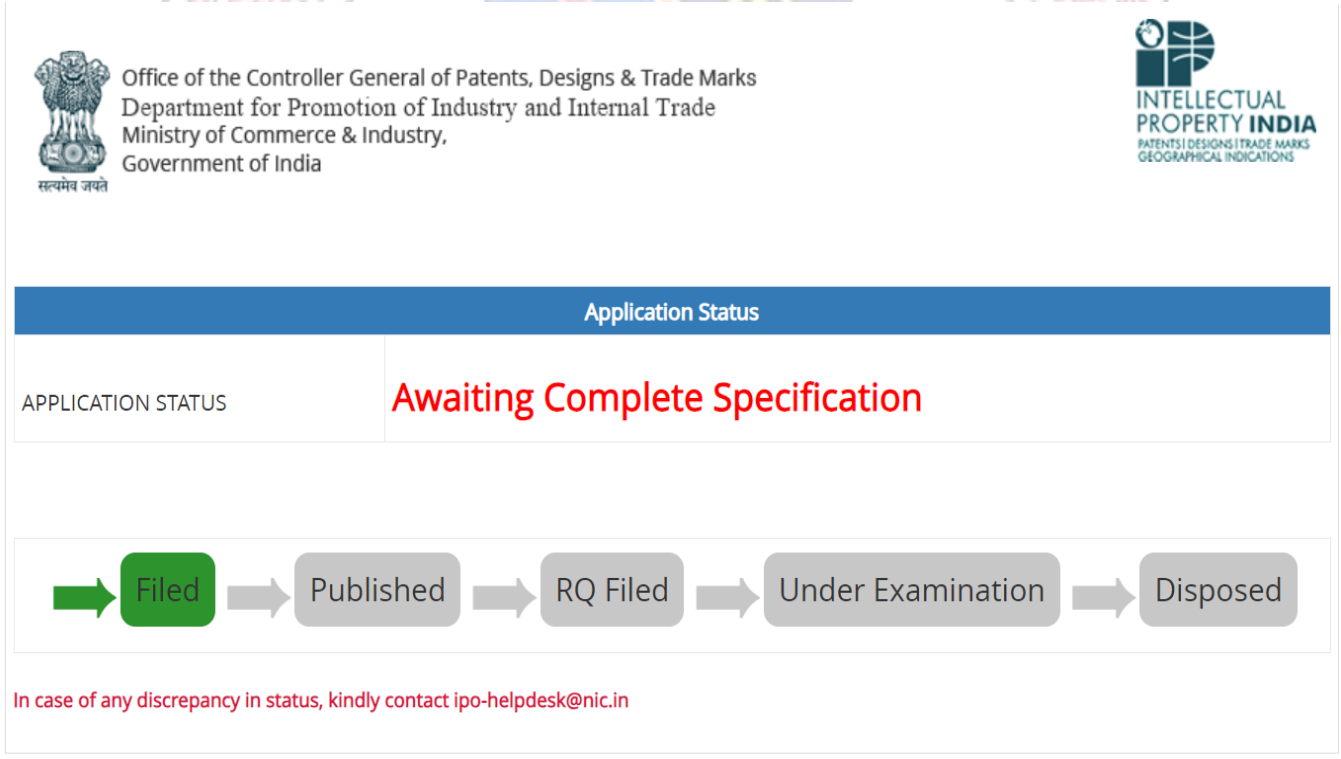
S. No	Topic	Name of the Inventors	Application No.
1.	A novel easy-to-wear garment for trauma care patients: Enhancing comfort and dignity	Ms. Menaka T, Ms. Mary Bramisha Ms. Madona Nishani and Ms. S. Ranisha	202441026950
2.	A biodegradable neem twig bristles for toothbrush	Dr. B.T. Delma, Dr. S. Lizy Roselet, Dr. M. Shirly Treasa, Dr. M. Antilin Princela, Dr. R. Gladis Latha, Dr. L. Deva Vijila and Dr. Sr. S. Sebastiammal	202341042670
3.	A novel method and composition for enhancing the characteristics of metal-infused activated carbon derived from prawn shells	N. Annlin Bessy, S. Jasvy, Dr. A. Lesly Fathima, Dr. Sr. S. Sebastiammal and S. Virgin Jeba	202341042672
4.	A novel method of producing shrimp shell-derived activated carbon	N. Annlin Bessy, Dr. A. Lesly Fathima, Dr. M. Priya Dharshini, Dr. Sr. K. Francy and Dr. S. Virgin Jeba	202341042671
5.	A novel power mobility chair with enhanced functional features for individuals with locomotor disabilities	Dr. Subha Ganapathy and Dr. Snow J. Sharmila	202441010450
6.	Wall mounted saree ironing machine	Dr. M. Abila Jeba Queen, Dr. P. Aji Udhaya and Dr. I. Jalaja Kumari	412188-001 (Design Patent) 01-04-2024
7.	Easy wearing garment for trauma care patients	Ms. Menaka T, Ms. Mary Bramisha, Ms. Madona Nishani and Ms. S. Ranisha	412190-001 (Design Patent) 01-04-2024
8.	Jewellery set	Ms. M. Rajika and Dr. Y. Christabel Shaji	412189-001 (Design Patent) 01-04-2024
9.	Fibre hair pro helmet	J. Mary Asha, Dr. Sr. S. Sahayaselvi, Dr. R. Krishna Priya and Dr. Sheeba Daniel	395052-001 Cbr No. 211520 (Design Patent) 14-09-2023
10.	Detachable solar panel seat back rest	A. Ambro Amalavarshini, G.S. Agshaya, E. Haruna, M. Ashmin, Dr. C. Nirmala Louis, Dr. V. Shally, Dr. M. Priya Dharshini, Dr. A. Lesly Fathima, Dr. R. Krishna Priya, Dr. M. Abila Jeba Queen, Dr. S. Sonia, S. Virgin Jeba, Dr. P. Aji Udhaya, Dr. Sr. S. Sebastiammal and Dr. S. Jenepha Mary	395064-001 Cbr No. 211528 (Design Patent) 14-09-2023
11.	Nanogels carrier for cancer drug delivery	Dr. Y. Christabel Shaji and Dr. S. Ajith Sinthuja	382099-001 Cbr No. 203658 (Design Patent)

			22-03-2023

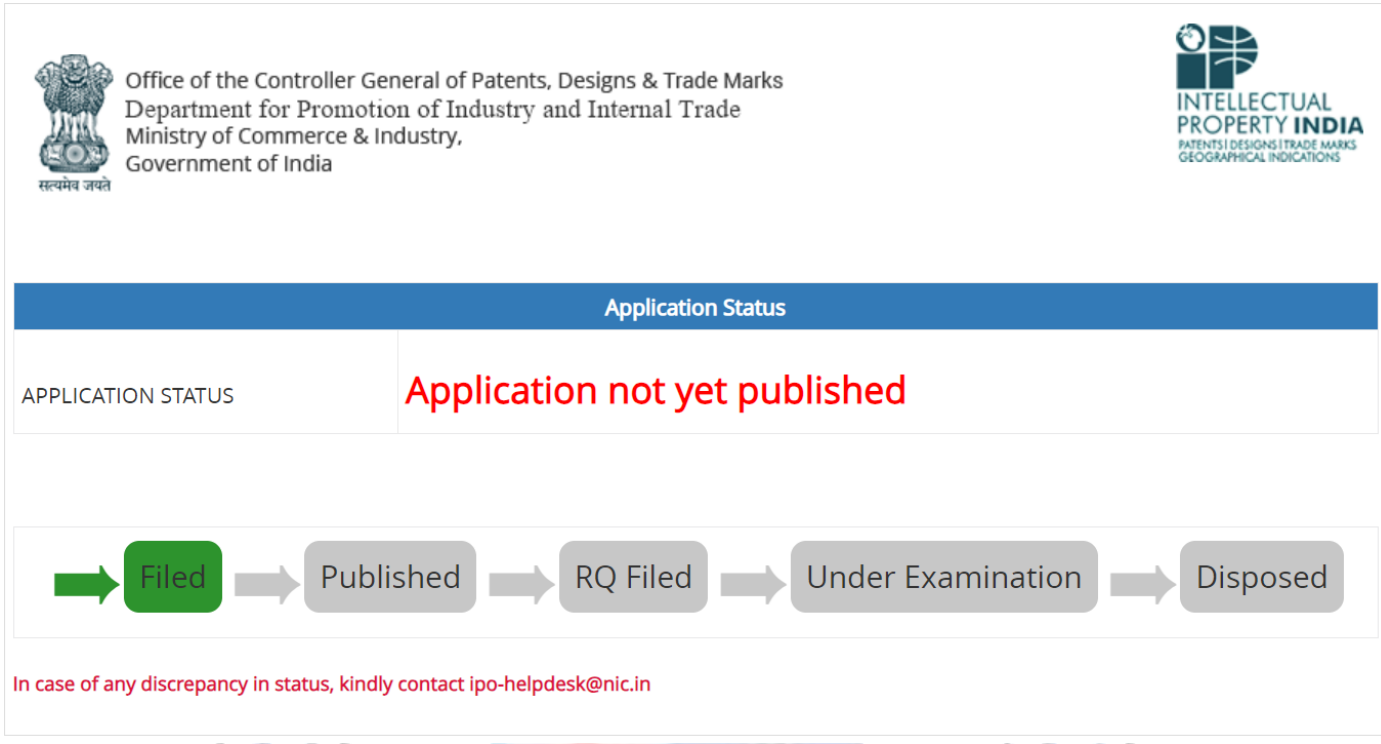
Application No. 202441026950



Application No. 202341042670



Application No. 202341042672


Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

सत्यमेव जयते

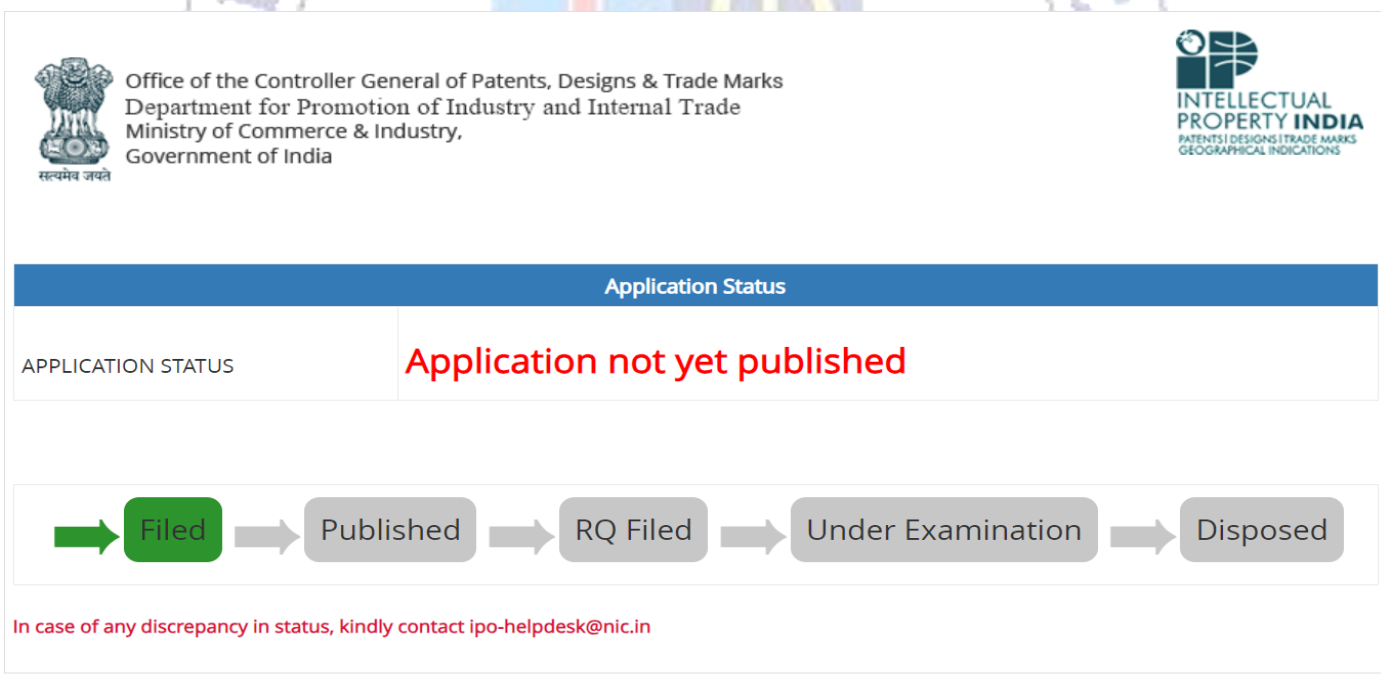
INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

Application Status	
APPLICATION STATUS	Application not yet published

Filed → Published → RQ Filed → Under Examination → Disposed

In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

Application No. 202341042671


Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

सत्यमेव जयते

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

Application Status	
APPLICATION STATUS	Application not yet published

Filed → Published → RQ Filed → Under Examination → Disposed

In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

Application No. 202441010450

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

Application Status	
APPLICATION STATUS	Awaiting Complete Specification

Filed → Published → RQ Filed → Under Examination → Disposed

In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Design Application Details

Application Number:	412188-001
Cbr Number:	205376
Cbr Date:	01/04/2024 13:57:00
Applicant Name:	**1. Holy Cross College (Autonomous) Nagercoil** **2. Dr. M. Abila Jeba Queen** **3. 3. Dr. P. Aji Udhaya** **4. Dr. I. Jalaja Kumari**

Design Application Status

Application Status: Examination Report has been Generated ,Case is Waiting for Examination Report Reply (FER generated on 16/05/2024)

Back

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230.The information under " Design Application Status" is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : controllerdesign.ipo@nic.in
Controller General of Patents, Designs and Trademarks

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Design Application Details

Application Number:	412190-001
Cbr Number:	205376
Cbr Date:	01/04/2024 13:57:00
Applicant Name:	**1. Holy Cross College (Autonomous) Nagercoil** **2. Ms. Menaka. T** **3. Ms. Mary Bramisha** **4. Ms. Madona Nishani** **5. Ms. S. Ranisha**

Design Application Status

Application Status: Application Under Process(wating for Technical Examination)

Back

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230.The information under " Design Application Status" is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : controllerdesign.ipo@nic.in
Controller General of Patents, Designs and Trademarks

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Design Application Details

Application Number:	412189-001
Cbr Number:	205376
Cbr Date:	01/04/2024 13:57:00
Applicant Name:	**1. MS. M. Rajika** **2. Dr. Y. Christabel Shaji**

Design Application Status

Application Status: Examination Report has been Generated ,Case is Waiting for Examination Report Reply (FER generated on 10/05/2024)

Back

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230.The information under " Design Application Status" is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : controllerdesign.ipo@nic.in
Controller General of Patents, Designs and Trademarks

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Design Application Details

Application Number:	395052-001
Cbr Number:	211520
Cbr Date:	14/09/2023 13:14:20
Applicant Name:	**1. Holy Cross College (Autonomous) Nagercoil** **2. J. Mary Asha** **3. Sr. S. Sahayaselvi** **4. R. Krishna Priya** **5. Sheeba Daniel**

Design Application Status

Application Status:	Examination Report has been Generated ,Online Reply Document Recived(FER generated on 12/10/2023)

Back

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230.The information under " Design Application Status" is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : controllerdesign.ipo@nic.in
Controller General of Patents, Designs and Trademarks

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Design Application Details

Application Number:	395064-001
Cbr Number:	211528
Cbr Date:	14/09/2023 15:04:36
Applicant Name:	**1. Holy Cross College (Autonomous) Nagercoil** **2. A. AmbroAmalavarshini** **3. G.S. Agshaya** **4. E. Haruna** **5. M. Ashmin** **6. C. Nirmala Louis** **7. V. Shally** **8. M. Priya Dharshini** **9. A. Lesly Fathima** **10. R. Krishna Priya** **11. M. Abila Jeba Queen** **12. S. Sonia** **13. S. Virgin Jeba** **14. P. Aji Udhaya** **15. Sr. S. Sebastiammal** **16. S. Jenepha Mary**

Design Application Status

Application Status:	Case is in Amended Case of Controller

Back

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230.The information under " Design Application Status" is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : controllerdesign.ipo@nic.in
Controller General of Patents, Designs and Trademarks

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

सत्यमेव जयते
GOVERNMENT OF INDIA

Controller General of Patents,Designs and Trademarks
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Design Application Details

Application Number:	382099-001
Cbr Number:	203658
Cbr Date:	22/03/2023 18:53:28
Applicant Name:	**1. Holy Cross College (Autonomous)** **2. Y. Christabel Shaji** **3. S. Ajith Sinthuja**

Design Application Status

Application Status: Examination Report has been Generated ,Case is Waiting for Examination Report Reply (FER generated on 30/05/2023)

Back

Disclaimer: Application status is available for the application filed on or after 1st April 2009 with application no 222230.The information under " Design Application Status" is dynamically retrieved and is under testing, therefore the information retrieved by this system is not valid for any legal proceedings under the Design Act 2000. In case of any discrepancy you may contact the appropriate Patent Office or send your comments to following email IDs:

Design Office, Kolkata : controllerdesign.ipo@nic.in
Controller General of Patents, Designs and Trademarks