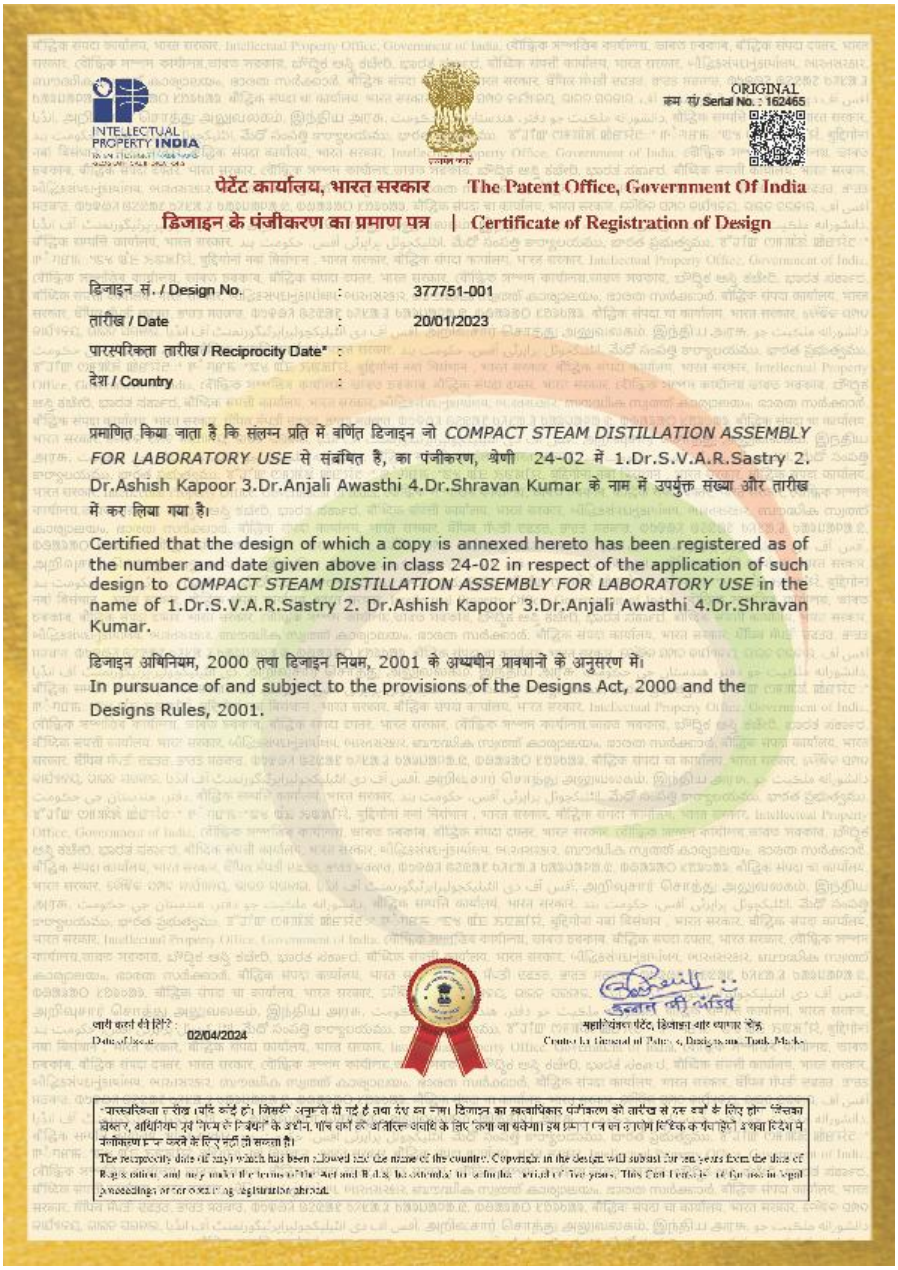
3.3.2 Chemical Engineering



INTELLECTUAL PROPERTY INDIA

ORIGINAL
क्रम सं/ Serial No. : 162465

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. : 377751-001

तारीख / Date : 20/01/2023

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *COMPACT STEAM DISTILLATION ASSEMBLY FOR LABORATORY USE* से संबंधित है, का पंजीकरण, श्रेणी 24-02 में 1.Dr.S.V.A.R.Sastry 2. Dr.Ashish Kapoor 3.Dr.Anjali Awasthi 4.Dr.Shravan Kumar 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 24-02 in respect of the application of such design to *COMPACT STEAM DISTILLATION ASSEMBLY FOR LABORATORY USE* in the name of 1.Dr.S.V.A.R.Sastry 2. Dr.Ashish Kapoor 3.Dr.Anjali Awasthi 4.Dr.Shravan Kumar.

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 : 02/04/2024
Date of Issue

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 पांच वर्ष के लिए होगा जिसका नवीकरण, अधिनियम एवं नियम के निबंधनों के अधीन, पांच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का कोई भी धारक किसी कार्यवाही अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं दी जाएगी।

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 make the terms of the Act and Rules in relation to it for the period of five years. This Certificate is not to be used in legal proceedings or for securing registration abroad.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :30/01/2023

(21) Application No.202311005854 A
(43) Publication Date : 10/02/2023

(54) Title of the invention : A METHOD OF PROCESSING AN ANTI-GRAFFITI NANO-COATING FOR WALLS

(51) International classification :B05D0005000000, B23P0006000000, E04G0023020000, G01N0021910000, C09D0005000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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3)Dr.Shravan Kumar
4)Dr.Rajkamal Kushwaha
5)Mr.Gaurav Singh
Name of Applicant : NA
Address of Applicant : NA
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(57) Abstract :
The present invention describes a method of processing anti-graffiti nano-coating for walls. The method comprising steps of: cleaning and preparing a wall surface, wherein the wall surface is repaired for cracks, holes or other damaged areas; applying a nano-coating of suitable proportion evenly over the repaired and cleaned wall surface; drying and curing to allow the nano-coating to dry for a predefined amount of time before applying a second coat; inspecting the wall surface for defects or areas requiring touch-up; and maintaining by cleaning the nano-coated wall surface and to remove any graffiti or other marks that may appear.

No. of Pages : 15 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :10/05/2023

(21) Application No.202311032905 A
(43) Publication Date : 23/06/2023

(54) Title of the invention : A NOVEL NANOPARTICLE-BASED COATING COMPOSITION FOR CORROSION RESISTANCE AND METHOD THEREOF

(51) International classification :C09D 050800, C09D 630000, C22C 384200, C22C 384800, C22C 385000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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Name of Applicant : NA
Address of Applicant : NA
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2)Dr.Shravan Kumar
Address of Applicant :Assistant Professor, Department of Biochemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------
3)Dr.Anjali Awasthi
Address of Applicant :Assistant Professor, Department of Chemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------
4)Ms.Mansi Tiwari
Address of Applicant :Research Scholar, Department of Chemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------
5)Ms.Vartika Nishad
Address of Applicant :Research Scholar, Department of Biochemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------

(57) Abstract :
The present invention discloses a novel nanoparticle-based coating composition for corrosion resistance and method thereof. Nanoparticles of one or more metals, metal oxides, or metal salts, having an average particle size of less than 100 nm and present in the coating composition in an amount of 0.1 to 10% by weight; and a binder, which can be any suitable organic or inorganic material, including polymers, resins, or ceramics. A solvent which dissolved or dispersed the binder and nanoparticles; wherein the coating composition can be applied to metallic surfaces using conventional coating methods, such as spraying, brushing, or dipping, and can be cured at room temperature or elevated temperature, depending on the binder used in the composition, forming a dense and uniform layer on the metallic surface, which provides excellent corrosion resistance. Further, the binder contains 0.5-25 wt% (based on paint solids) primary nano-scale particles which can be incorporated as solid, produced by jet dispersion of nano-scale particles into the binder.

No. of Pages : 18 No. of Claims : 4

REPUBLIC OF SOUTH AFRICA

REPUBLIEK VAN SUID AFRIKA

PATENTS ACT, 1978

CERTIFICATE

In accordance with section 44 (1) of the Patents Act, No. 57 of 1978, it is hereby certified that:

Dr.S.V.A.R.Sastry; Dr.Ashish Kapoor; Dr.Anjali Awasthi; Ms.Vaishali Ajay Giri; Ms.Chandrika Sengar

Has been granted a patent in respect of an invention described and claimed in complete specification deposited at the Patent Office under the number

2023/03700

A copy of the complete specification is annexed, together with the relevant Form P2.

In testimony thereof, the seal of the Patent Office has been affixed at Pretoria with effect from the 26th day of April 2023

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Registrar of Patents

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :22/01/2023

(21) Application No.202311004328 A
(43) Publication Date : 27/01/2023

(54) Title of the invention : A CNT-EG BASED NANO-COMPOSITION FOR HEAT CONVECTION IN HIGH ENERGY HEAT DISSIPATING DEVICES

(51) International classification :H01L0023373000, H05K0007200000, H02K0009220000, H01L0023360000, H01L0023367000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant** :
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Address of Applicant :Associate Professor, Department of Chemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------
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3)Dr.Anjali Awasthi
4)Ms.Vaishali Ajay Giri
5)Ms.Chandrika Sengar
Name of Applicant : NA
Address of Applicant : NA
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Address of Applicant :M.Tech Student, Department of Chemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------
5)Ms.Chandrika Sengar
Address of Applicant :M.Tech Student, Department of Chemical Engineering, Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India. Pin Code:208002 ---------- ----------

(57) Abstract :
The present invention relates to a method of heat convection in high energy heat dissipating devices using carbon nanotubes-ethylene glycol (CNT-EG) based nano-composition. The method comprising steps of: preparing the CNT-EG based nano-composition by mixing a suitable ratio of CNT in EG; mixing the nano-composition with a thermally conductive filler, such as silver or aluminium particles, to increase thermal conductivity of a thermal interface material (TIM); applying the TIM to a heat source by spreading the TIM evenly over a surface; pressing the TIM onto the heat source with a roller or other pressing device to ensure good thermal contact; and connecting a heat sink or other cooling mechanism to the heat source to remove the heat generated by the device.

No. of Pages : 18 No. of Claims : 10

ORIGINAL

मूल/No : 133775

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE

डिजाइन के पंजीकरण का प्रमाणपत्र
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No.	:	378426-001
तारीख / Date	:	01/02/2023
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **A SOLAR-POWERED EXHAUST COOLING FAN FOR CARS** से संबंधित है, का पंजीकरण, श्रेणी 23-04 में 1.Dr.S.V.A.R.Sastry 2. Dr.Pankaj Kumar Gupta 3.Dr.Shravan Kumar 4.Mr.Gaurav Singh 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 23-04 in respect of the application of such design to **A SOLAR-POWERED EXHAUST COOLING FAN FOR CARS** in the name of 1.Dr.S.V.A.R.Sastry 2. Dr.Pankaj Kumar Gupta 3.Dr.Shravan Kumar 4.Mr.Gaurav Singh.

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.

निर्गमन की तारीख/Date of Issue : 25/04/2023

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

पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति देश के नाम पर की गई है। 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.

REPUBLIC OF SOUTH AFRICA

REPUBLIEK VAN SUID AFRIKA

PATENTS ACT, 1978

CERTIFICATE

In accordance with section 44 (1) of the Patents Act, No. 57 of 1978, it is hereby certified that:

Dr.S.V.A.R.Sastry; Dr.Adarsh Kumar Arya; Dr.Shravan Kumar; Dr.Rajkamal Kushwaha; Mr.Gaurav Singh

Has been granted a patent in respect of an invention described and claimed in complete specification deposited at the Patent Office under the number

2023/03697

A copy of the complete specification is annexed, together with the relevant Form P2.

In testimony thereof, the seal of the Patent Office has been affixed at Pretoria with effect from the 28th day of April 2023

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Registrar of Patents