

Information of Design Patent Granted

TITLE: - DAY NIGHT SOLAR COOKER USING NANOMIXED PCM

INNOVATORS: -

1. Dr. Chetan Vijaykumar Papade
2. Dr. Amarsingh Baburao Kanase-Patil

SUMMARY:

This solar cooker is very useful concept as per as evening and early morning cooking is concerned. This solar cooker is able to cook the food anytime throughout day irrespective of the atmospheric conditions. In this system solar thermal energy is stored in latent heat storing material which is of $\text{NaNO}_3\text{-KNO}_3$ binary salt. So cooking is done during daytime and also during evening period by using the heat energy stored in the $\text{NaNO}_3\text{-KNO}_3$ binary salt. As per construction food grade two stainless steel vessels are dipped in PCM. So due to high temperature stored in the PCM cooking vessel gets high temperature for cooking. Two separate cooking pots are provided with the separate leads for the purpose of covered cooking. The thermal energy storage tank is provided with the handles on the top surface of the tank for the easy handling purpose. For improvisation in the heat storing capacity different concentrations of aluminium oxide nanoparticles are used for experimentation. The main advantage of the solar cooker system is that; cooks two types of food products at the same time simultaneously. Easy transport of the thermal energy storage tank from one place to another place done due to provision of the handles.

Keywords: -Indoor cooking, Solar Cooker, Binary Salt PCM, Al_2O_3 Nanoparticles, NaNO_3 and KNO_3

PERSPECTIVE VIEW :-





ORIGINAL
क्रम सं/Serial No.: 170985



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. : 362696-001

तारीख / Date : 18/04/2022

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में बर्णित डिजाइन जो DAY NIGHT SOLAR COOKER USING NANO-MIXED PCM से संबंधित है, का पंजीकरण, श्रेणी 07-02 में 1.Mr. Chetan Vijaykumar Papade 2. Dr. Amarsingh Baburao Kanase-Patil 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 07-02 in respect of the application of such design to DAY NIGHT SOLAR COOKER USING NANO-MIXED PCM in the name of 1.Mr. Chetan Vijaykumar Papade 2. Dr. Amarsingh Baburao Kanase-Patil.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के संबंधी 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 : 29/05/2024



Signature
वृन्दात की सिंह

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