

पेटेंट कार्यालय  
शासकीय जर्नल

**OFFICIAL JOURNAL  
OF  
THE PATENT OFFICE**

---

---

निर्गमन सं. 37/2021  
ISSUE NO. 37/2021

शुक्रवार  
**FRIDAY**

दिनांक: 10/09/2021  
DATE: 10/09/2021

---

---

पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

## **INTRODUCTION**

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01<sup>st</sup> January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

**( Shri Rajendra Ratnoo )**  
**CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS**

**10<sup>TH</sup> SEPTEMBER, 2021**

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202041010158 A

(19) INDIA

(22) Date of filing of Application :09/03/2020

(43) Publication Date : 10/09/2021

(54) Title of the invention : EFFICIENT ADSORBER CUM MUFFLER

(51) International classification :B01D0053040000,  
B01D0053047000,  
B01J0020340000,  
F01N0003050000,  
F25B0035040000

(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(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 :  
**1)R.V. College of Engineering**  
Address of Applicant :R. V. Vidyaniketan Post, Mysore Road,  
Bangalore 560059, Karnataka, India. Karnataka India

(72)Name of Inventor :  
**1)M A Lourdu Antony Raj**  
**2)Pratham Kumar N**  
**3)Raghav Raja**  
**4)Ros Theres Koikkara**  
**5)Kalpitha M V**

(57) Abstract :

EFFICIENT ADSORBER CUM MUFFLER ABSTRACT An adsorber cum muffler device in an exhaust system comprising: a primary cooling unit configured with a TEC-12706 cooling component to reduce the temperature of the exhaust gas stream to prevent the problem of auto ignition of activated carbon of the adsorbent bed and to increase the degree of adsorption where the gas gets cooled when it passes over the cold surface of the TEC-12706 cooling component; and an adsorber unit made of a hollow rectangular metal casing with apertures on either sides of the casing and inner stages to hold the adsorbent beds made of an activated carbon, an activated alumina and starch along with a slits at the bottom and top posterior faces with a metallic mesh above the bottom slot that provides contact between the adsorbent bed and the incoming stream of exhaust gases, wherein the adsorber cum muffler device performs as both as a adsorber to trap harmful gases and as a muffler to reduce the noise present in the engine<sup>TM</sup>s exhaust simultaneously.

No. of Pages : 26 No. of Claims : 5