(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :01/12/2021

(21) Application No.202141055679 A
(43) Publication Date : 10/12/2021

(54) Title of the invention : REUSABILITY OF ANTIMICROBIAL MULTILAYER NANOFIBER MASK WITH HIGH PROTECTIVE

(51) International classification :A41D0013110000, B32B0005260000, D06M0011420000, D06M0017000000, A62B0018020000
(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)Dr.V.Sabari
Address of Applicant :Head & Assistant Professor, PG and Research, Department of Physics, Marudhar Kesari Jain College for Women, Vaniyambadi, Thirupattur, TamilNadu, India, Pincode-635751 ---------- ----------
2)Dr. M. Charumathy
3)Mr. Gajanan Chandrakant Upadhye
4)Dr. Vinay Hiralal Singh
5)Dr. S V G V A PRASAD
6)Dr. G.V. Nagesh
7)Dr. M.A. Badhul Haq
8)Dr. Ganganagunta Srinivas
9)Dr.U.Keerthi
10)Dr. G. Adilakshmi
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr.V.Sabari
Address of Applicant :Head & Assistant Professor, PG and Research, Department of Physics, Marudhar Kesari Jain College for Women, Vaniyambadi, Thirupattur, TamilNadu, India, Pincode-635751 ---------- ----------
2)Dr. M. Charumathy
Address of Applicant :Assistant Professor, PG Department of Biochemistry, Marudhar Kesari Jain College for Women, Chinnakallu Palli, Vaniyambadi, Tamilnadu, India, Pincode-635751 ---------- ----------
3)Mr. Gajanan Chandrakant Upadhye
Address of Applicant :Assistant Professor, Department of Chemistry, Konkan Gyanpeeth Karjat College of ASC, Ladivli, Tiware, Karjat, Raigad, Maharashtra, India , Pin Code: 410201 ---------- ----------
4)Dr. Vinay Hiralal Singh
Address of Applicant :Assistant Professor, Department of Chemistry, Konkan Gyanpeeth Karjat College of ASC, Ladivli, Tiware, Karjat, Raigad, Maharashtra, India , Pin Code: 410201 ---------- ----------
5)Dr. S V G V A PRASAD
Address of Applicant :Professor, Department of Physics, Pithapur Rajah's Government Autonomous College, Kakinada, Andhra Pradesh, India, Pincode: 533001 ---------- ----------
6)Dr. G.V. Nagesh
Address of Applicant :Assistant Professor in Physics, Department of Physics, Lendi Institute of Engineering And Technology, Jonnada, Vizianagaram, Andhra Pradesh, India, Pin: 535005 ---------- ----------
7)Dr. M.A. Badhul Haq
Address of Applicant :Assistant Professor Senior Grade & Head, Department of Marine Biology, Deputed from Faculty of Marine Sciences, Annamalai University, Parangipettai, Cuddalore, Tamil Nadu, India, Pincode– 608502 ---------- ----------
8)Dr. Ganganagunta Srinivas
Address of Applicant :Senior Faculty in Physics, Engineering department, University of Technology and Applied Sciences-IBRA, IBRA, North Al Sharqia region, Oman, Pincode:400 ---------- ----------
9)Dr.U.Keerthi
Address of Applicant :D.No.12-1-64, Ashok Nagar, 4th Cross, Anantapuramu, Andhra Pradesh, India, Pin: 515002 ---------- ----------
10)Dr. G. Adilakshmi
Address of Applicant :Woman Scientist, 130/D, Vengalarao Nagar, Hyderabad, Telangana, India, Pincode-500038 ---------- ----------

(57) Abstract :
According to the present Invention, an antimicrobial multi-layer protective mask has a body section including at least first and second fabric layers having random fiber configuration; a middle layer including nanofiber membrane; and third and fourth fabric layers. There are two layers of fabric sandwiched between the nanofiber membrane and the third fabric layer. Fabric layers 1 through 4 each include a synergistic mixture of at least two metal oxide powders that exhibit synergistic antibacterial capabilities, such as the first metal's mixed-oxidation state oxide and a second metal's single-oxidation-state oxide.

No. of Pages : 29 No. of Claims : 4