

(54) Title of the invention : FABRICATION OF PARABOLIC TROUGH COLLECTOR (PTC) USING FRP AND ALUMINUM SHEETS

| | |
|---|--|
| <p>(51) International classification :F24S0023700000, F03G0006060000, F24S0023740000, F24S0023710000, F24S0060300000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p> | <p>(71)Name of Applicant : 1)Dr. Manish Sharma Address of Applicant :Associate Professor, Mechanical Engineering Dept., Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>2)Malla Reddy Engineering College Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr. Manish Sharma Address of Applicant :Associate Professor, Mechanical Engineering Dept., Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>2)Dr. Rahul Dev Address of Applicant :Associate Professor, Department of Mechanical Engineering, Motilal Nehru National Institute of Technology Allahabad, Teeliyarganj, India, 211004. Allahabad -----</p> <p>3)Dr. Dilawar Husain Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Maulana Mukhtar Ahmed Nadvi Technical Campus, Malegaon, Nashik-423203. Malegaon -----</p> <p>4)Mr.CH.Ashok Kumar Address of Applicant :Assistant Professor, Mechanical Engineering Dept., Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>5)Dr. T.Venkata Deepthi Address of Applicant :Associate Professor, Mechanical Engineering Dept., Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>6)Dr.S.Udaya Bhaskar Address of Applicant :Professor, Mechanical Engineering Dept., Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>7)Mr. N. Srinivasa Rajneesh Address of Applicant :Assistant Professor, Malla Reddy Engineering College for Women, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>8)Mr. C. Anil Kumar Reddy Address of Applicant :Junior Research Fellowship, Mechanical Engineering Dept. Vardhaman College of Engineering, Shamshabad, Hyderabad-501218 Shamshabad -----</p> <p>9)Mr.P.Vamshi Krishna Address of Applicant :Assistant Professor, Mechanical Engineering Dept., Narsimha Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. Maisammaguda -----</p> <p>10)Dr. Kirti Tewari Address of Applicant :Assistant Professor, Department of Mechanical Engineering, National Institute of Technology-Sikkim Barfung Block, Ravangla Sub-Division, Dist. Namchi, Sikkim - 737 139. Namchi -----</p> |
|---|--|

(57) Abstract :

Most of the developing countries have regions of high insolation. Solar Energy is one of the most important renewable energy source. The utilization of solar energy for the various application have been made in the recent past. There are various solar collectors available in the market to produce environmentally compatible electricity. In general, the thermo-solar market is reduced to flat plate collector that produces hot water (i.e. T<80°C), and a small division of concentrating collectors that is also used to produce steam. Parabolic shaped reflectors are one of the first concentrators and evolved as one of the matured technology. There are various methods for manufacturing of these collectors. The patent is filed to differentiate manufacturing method from the existing method of the concentrating collectors for solar radiation concentration. The method of manufacturing ensures the replication of the shape with a definite accuracy and thus the increase in the temperature range of the solar collection. The conventional solarcollector is capable of reaching a temperature of 90 to 100oC wheareas the temperature of the non-conventional method is higher (i.e. 150<t<= tr=></t

No. of Pages : 8 No. of Claims : 2