VIGNAN UNIVERSITY-VADLAMUDI

Title of the Project : Biliquid Solar Cooker.
Name of the Investigator : Mr. B.J.M.Rao
Amount Sanctioned : Rs. 7,500/-
Sponsoring Authority : APCOST, Hyderabad
Project Sanction Date : 23-03-2007
Project Status : Completed

Project Description:

Solar energy is the world's most abundant permanent source of energy. The amount of solar energy intercepted by the earth is about 17×10^{15}KW, which is only the tiny fraction of the total energy released by the conversion of 4 million tons of hydrogen per second to helium in the sun. Growing industrial activities and rising standards of living throughout the world make an increased supply of energy absolutely essential. Most common forms of energy – coal, petroleum and natural gas are now being used at a such a rapid rate that they will be depleted in the not too distant future. Nuclear Energy requires highly technical and expensive means for safe and reliable utilization. In this context, the sun holds more promise of filling energy need than any other source. Solar energy is dependable source without requiring a highly sophisticated technology for its widespread utilization. In additional it is free from pollution.

The solar power where sun hits atmosphere, is 10^{17} watts, where as the solar power at earth's surface is 10^{16}watts. The total worldwide power demand of all needs of civilization is 10^{13} watts. Therefore, the sun gives 1000 times more power than we need. If we can use 5% of this energy, it will be 50 times what the world will require.

In general, the energy produced and radiated by the sun; more specifically, the term refers to the sun's energy that reaches the earth. Solar radiation, received in the form of radiation, can be converted directly or indirectly into other forms of energy, such as heat and electricity, which can be utilized by man. Since the sun is expected to radiate at an essentially constant rate for a few billion years, it may be regarded as an inexhaustible source of useful.