POWER SUPPLY BASED ON THERMOCOUPLES WITH CRYOGEN CONTACT COLD JUNCTION

Author(s): Ghaus Bakhsh Narejo, Muhammad Ahmed Dawood

Volume: X
No: 2
Pages: 27 - 35
Date: September 2013

Abstract:
Thermocouples are widely employed for the purpose of sensing and measuring in scientific and industrial fields. A wide variety of thermocouples are available to meet diverse applications on the basis of temperature in which they are required to operate. Although, a considerable amount of research has been done on the radioisotope thermoelectric generators (RTG) based power supply this paper presents a new concept of the thermocouple-based power supply. This concept is based on utilizing a cryogen in contact with the cold junction whereas the hot junction is exposed to the ambient temperature to provide temperature difference for voltage generation.

For full paper, contact:
Prof Muhammad Masood Rafi
Editor-in-Chief, NED University Journal of Research
Ph: +92 (21) 99261261-8 Ext: 2413; Fax: +92 (21) 99261255
Email: NED-Journal@neduet.edu.pk
Website: http://www.neduet.edu.pk/NED-Journal