

عنوان مقاله:

Using thermoelectric technology and making thermal energy recycling kettles for mountaineering

محل انتشار:

اولین کنفرانس ملی بهینه سازی در انرژی های تجدیدپذیر (سال: ۱۳۹۹)

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خلاصه مقاله:

Nowadays, mountaineering is a popular destination for sports and leisure time, and some people consider this technique to be the primary and main occupation. In this sport most of the time, camping time for professional climbers will last more than a day or weeks. One the problems in the mountain is, lack of electricity in most mountain routes so climbers usually use batteries or other electrical equipment along the way to meet their needs, therefore it increases the weight of the load and limits the amount of equipment needed. Since the mountain paths are associated with lower temperatures in different seasons of the year, with the construction of thermal energy recovery kettles using thermoelectric technology can generate electric power in hot and cold seasons in routes and camps, and climbers can use recycling kettles to enjoy electricity during nights and days while having hot drinks. The thermoelectric used in energy recycling kettle is TEG1-12611-6.0 with dimensions 56 mm length, 56 mm width and 3.6 mm height and the maximum voltage obtained from the recycling kettle has been reported in practical experiments is about 1.3 Volt, which is obtained at a temperature difference at 75 ° C

کلمات کلیدی:

Mountaineering, Temperature Difference, Thermoelectric Generator, Electric Voltage, Energy Recovery

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