European Solar and Energy Storage Solutions

New Energy Storage Special Shaped Pipe

Overview

Can heat pipe storage tanks be used for nuclear fuel generation?

Jeong and Bang conducted a simulation of heat pipe storage tanks in a nuclear fuel generation application. Typically, the traditional function of such storage facilities is to implement natural convection to remove decaying heat but the method poses a risk for the potential of system failures.

Can a hybrid heat pipe be used in space nuclear power?

In the space nuclear power application, the hybrid heat pipe has shown a remarkable heat transfer performance. The experiment carried out in Ref. show that it managed to remove 82Kw/mK from the core.

Can heat pipes be modelled in waste heat recovery systems?

The modelling of heat pipes within waste heat recovery systems is typically carried out as single pipe systems and rarely modelled in a complete heat exchanger schematic. The modelling of heat pipes in waste heat recovery implements certain assumptions to accurately produce a waste heat recovery model.

Can a heat pipe be used in a dry storage unit?

The implementation of heat pipe systems is highly dependent on the application and desired configuration of the heat pipes. Jeong and Bang modelled the implementation of a hybrid heat pipe in the application of a dry storage unit within a nuclear power station.

Can a heat pipe be used in a nuclear power plant?

Whilst remaining in the power sector, the addition of heat pipes for nuclear applications is possible in the condenser section. The basic operation of a heat pipe requires two working fluids, one in the condenser section and one in the evaporator section.

Can a hybrid heat pipe be used in a dry storage unit?

Jeong and Bang modelled the implementation of a hybrid heat pipe in the application of a dry storage unit within a nuclear power station. The simulations conducted compared the thermal properties of the system before and after the implementation of hybrid heat pipes. A homogeneous model was applied throughout the system.

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Full article: Performance investigation of battery thermal ...

2.1. Geometric model description. Figure 1 shows a schematic diagram of the battery pack with HCLC, comprising 15 18650 LIB (connected in 5 series and 3 parallel (5S3P)), aluminum ...

Detection of Inner Wall Circumferential Cracks in the Special-Shaped ...

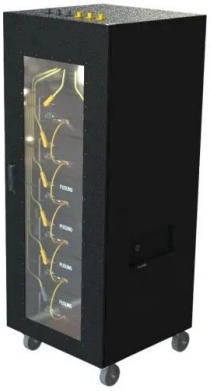
A new method using surface waves to detect the circumferential cracks in the inner wall of special-shaped pipes with a small diameter-depth ratio such as casing heads and ...

Enhancement of the Thermal Energy Storage Using ...

Usage of phase change materials' (PCMs) latent heat has been investigated as a promising method for thermal energy storage applications. However, one of the most common disadvantages of using latent heat thermal ...

Heat Storage Performance of PCM in a Novel Vertical Pointer-Shaped ...

The heat storage performance of latent heat storage systems is not good due to the poor thermal conductivity of phase change materials. In this paper, a new type of pointer ...



Pipe-pipe thermal interaction in a geothermal energy pile

Request PDF , On Sep 1, 2019, Abubakar Kawuwa Sani and others published Pipe-pipe thermal interaction in a geothermal energy pile , Find, read and cite all the research you need on ...

Heat transfer enhancement technology for fins in phase change energy ...

In terms of waste heat recovery, the development of heat storage technology is relatively mature, simple, easy to implement, and low cost, which is the best choice for heat ...

Experimental investigation on startup and thermal performance of ...

The effects of thermal load 1662W and 3740W respectively, the maximum furnace temperature 450°C and 600°C on the starting characteristics of the sulfur heat pipe is ...

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