Liquid pump for solar power generation

How does a liquid metal solar thermal power generation system work?

A typical liquid metal solar thermal power generation system is shown in Fig. 8. The solar mirror reflects sunlight to the surface of the heat collector. Then the liquid metal flows through the heat collector to transfer the solar heat to the heat storage tank.

Can liquid metal technology be used in solar power generation?

Various heat transfer systems based on liquid metals have been investigated,and consequently,significant advances in liquid metal material properties,industrial thermal management,and solar power generation have been achieved. This paper presents a thorough review on basics and applications of liquid metal technology in solar power generation.

What is liquid metal based solar thermal power generation?

Liquid metal based solar thermal power generation. In the solar thermal power generation system,the temperature of collector can reach 1000 °C.Therefore,the excellent heat transfer capability is very important for the efficient and stable operation of the whole power generation system.

Can a capillary-driven pump be used for solar vapor generation?

Many structures based on the two-layered design or the plasmonic enhanced evaporation have been reported to promote the efficiency of solar vapor generation. Inspired by the transpiration phenomenon in plant,we report that a capillary-driven pump can be used for highly efficient solar vapor generation.

Can liquid metals be used as heat transfer fluid in solar power plants?

A new solar fuels reactor concept based on a liquid metal heat transfer fluid: reactor design and efficiency estimation A review on the application of liquid metals as heat transfer fluid in concentrated solar power technologies Thermodynamic evaluation of liquid metals as heat transfer fluids in concentrated solar power plants

How do concentrated solar power plants work?

In concentrated solar power plants with central tower and molten salt, the sun's energy is used to raise the temperature of molten salts, which are pumped into a steam generator that powers a turbine. The efficiency of this process can be improved if the working temperature is increased.

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