Rankine systems Jordan

Can Organic Rankine cycle improve solar power generation performance?
Technol. | ASME Digital Collection J. Energy Resour. Technol. Nov 2024, 146 (11): 112102 (14 pages) To improve the performance of traditional solar power generation systems, a new solar organic Rankine cycle system that can generate electricity and heat is proposed.

Which Rankine cycle system is most efficient?
Theoretical studies show that hybrid systems,including Brayton and organic Rankine cycles,are the most efficient; however,they require very high temperatures to operate. Most organic Rankine cycle plants produce net power outputs from 1 kW up to several tens of kW,mainly using microturbines and plate heat exchangers. 1. Introduction

Can Rankine cycles be used to generate low temperature power?
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Can Rankine cycle be used as a bottoming cycle?
Yagli, H.; Koç, Y.; Kalay, H. Optimisation and exergy analysis of an organic Rankine cycle (ORC) used as a bottoming cycle in a cogeneration system producing steam and power. Sustain. Energy Technol. Assess. 2021, 44, 100985. [Google Scholar] [CrossRef]

Can geothermal-based organic Rankine cycle be integrated with proton exchange membrane electrolyzer?
Gholamian, E.; Habibollahzade, A.; Zare, V. Development and multi-objective optimization of geothermal-based organic Rankine cycle integrated with thermoelectric generator and proton exchange membrane electrolyzer for power and hydrogen production. Energy Convers. Manag. 2018, 174, 112-125. [Google Scholar] [CrossRef]

Does a combined organic Rankine-vapor compression refrigeration cycle aided hydrogen liquefaction?
The performance assessment of a combined organic Rankine-vapor compression refrigeration cycle aided hydrogen liquefaction. Int. J. Hydrogen Energy Energy 2018, 43, 20192-20202. [Google Scholar] [CrossRef] Ganjehsarabi, H. Mixed refrigerant as working fluid in Organic Rankine Cycle for hydrogen production driven by geothermal energy. Int. J.

Organic Rankine cycles (ORCs) and Kalina cycles are the best technologies for the conversion of low-quality and medium-quality thermal energy to electrical power. The ORC applies the principle...

The performance of small-scale ORC system powered by solar energy located in the Northern part of Jordan is studied. PTC is utilised in the plant. The performance of several organic fluids is investigated.

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This study investigates the performance of solar powered organic Rankine cycle (ORC) system. Parabolic trough collector PTC is utilised in this study. The selected site is located in the northern p...

Ahmad et al. developed an analytical model to test the feasibility of a CCPP combined with a PV system and Inlet Air Cooling (IAC) system to tackle the harsh ambient conditions of Jordanian weather. Inlet air was cooled using mechanical chillers, which were driven by power from Steam Turbines.

The heat recovery Rankine cycle system (both organic and steam based) is an efficient means for recovering heat (in comparison with other technologies such as thermo-electricity and absorption cycle air-conditioning).

Theoretical studies show that hybrid systems, including Brayton and organic Rankine cycles, are the most efficient; however, they require very high temperatures to operate. Most organic Rankine cycle plants produce net ...

To improve the performance of traditional solar power generation systems, a new solar organic Rankine cycle system that can generate electricity and heat is proposed. The system incorporates the separation-flash process, regenerator, and ...

Theoretical studies show that hybrid systems, including Brayton and organic Rankine cycles, are the most efficient; however, they require very high temperatures to operate. Most organic Rankine cycle plants produce net power outputs from 1 kW up to several tens of kW, mainly using microturbines and plate heat exchangers.

A thermodynamic model is developed based on a conceptual scheme for a 100 kW potassium Rankine cycle system. Five operating parameters: vapor temperature, vapor pressure, exhaust temperature, condenser outlet temperature and split ratio, are used to perform iterative calculations of the effect on the thermal efficiency of the system.

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