

## عنوان مقاله:

A waste heat recovery in internal combustion engines using an absorption power cycle

## محل انتشار:

بیست و نهمین همایش سالانه بین المللی انجمن مهندسان مکانیک ایران و هشتمین همایش صنعت نیروگاه های حرارتی (سال: 1400)

تعداد صفحات اصل مقاله: 7

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## خلاصه مقاله:

An absorption power cycle (APC) is proposed to recovery the waste heat of exhaust gases from large-size internal combustion engines. This cycle works with ammonia/water as the working fluid and is used as exhaust gas as the heat source in superheater and vapor generator. Based on the first law, the effects of thermodynamics parameters on cycle performance are investigated. Thermal efficiency, net output work, turbine size and cost of heat exchangers are the parameters investigated in this study. Results indicate that for a typical working condition, the thermal efficiency of the cycle increases with increasing the heating source temperature, the high pressure and the rich solution ammonia mass fraction

## کلمات کلیدی:

Waste heat recovery, Internal combustion engine, Absorption power cycle, Thermodynamics analysis

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1238347>

