

## عنوان مقاله:

Numerical simulation of a solar chimney power plant in the southern region of Iran

## محل انتشار:

دو فصلنامه تجهیزات و سیستم های انرژی، دوره 5، شماره 4 (سال: 1396)

تعداد صفحات اصل مقاله: 7

## نویسنده:

Morteza Bayareh - Department of Mechanical Engineering, Faculty of Engineering, Shahrekord University, Shahrekord, Iran

## خلاصه مقاله:

Three-dimensional numerical simulations are performed to investigate the effects of pressure drop across the turbine and solar radiance on the performance of a solar chimney power plant (SCPP). The SCPP system expected to provide electric power to a city is located in southern region of Iran (city of Lamerd, Fars province). Its dimensions are similar to the Manzanares prototype (built in Spain, 1970s). The results demonstrated that the SCPP can provide up to 40–200 KW of power, depending on the season. It was found that the turbine pressure drop and the solar radiation .had significant effects on the first and second law efficiencies

## کلمات کلیدی:

Solar Chimney Power Plant, Turbine Pressure Drop, Performance analysis, South of Iran, Output power

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/862085>

