Topic of the paper

A. Surname,[1*] B. Someone[2]
[1]University Name, Department Name, Place, Country
[2]University Name, Department Name, Place, Country
*Corresponding author E-mail ID

Abstract

(The abstract should present the aim, methodology, brief discussion of the results and the conclusion)

Solar chemical reactors for highly concentrated solar systems usually feature the use of a cavity-receiver type configuration, i.e. a well-insulated enclosure with a small opening, the aperture, to let in concentrated solar radiation. Because of multiple internal reflections, the fraction of the incoming energy absorbed by the cavity often greatly exceeds the surface absorptance of the inner walls. The larger the ratio of the cavity's characteristic length to the aperture diameter, the closer the cavityreceiver approachesa blackbody absorber. Smaller apertures reduce re-radiation losses, but they intercept a reduced fraction of the sunlight reflected from the concentrators. Consequently, the optimum aperture size is a compromise between maximizing radiation capture and minimizing radiation losses.

Keywords (four to eight keywords): Solar thermochemistry, Gasification, Biofuels, Biomass, Thermochemical

References *(format)*

1. Petrascha, J., Oscha, P., Steinfeld, A. (2009), Dynamics and Control of Solar Thermochemical Reactors, *Chem. Eng. J.*, 145, 362–370.