

## **ABSTRACT**

A study of the performance of high efficiency evacuated tubular collector has been done. The 'Cortec' collector was its instantaneous efficiency was determined.

In parallel, a numerical simulation program was developed to predict the instantaneous performance of the 'Cortec' collector. The theoretical results are nearly quite of the test results.

At last, we have proposed a transformation of the Cortec's plate absorber. An original configuration wich consist on a romboïdal geometry of the absorber was done. The comparaisn of the daily average efficiency shows that the proposed collector with romboïdal absorber has a quite good efficiency along the day, and higher than Cortec's one.