**SAIP2013** 



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## A solar-thermal cooker using oil for heat transfer

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## Abstract content <br> &nbsp; (Max 300 words)

A solar-thermal cooker was constructed and tested at the Westville Campus of the University of KwaZulu-Natal. The system comprised a half-parabolic collector dish with trapezoidal mirror tiles, and a coiled-pipe receiver connected to a pebble-based storage. The dish tracked the sun using a computer program. Solar radiation was focused onto the receiver by the collector and thermal energy was transported from the receiver to the storage by pumping oil through a closed loop. Two receivers were tested: a flat coil and a concave cup coil. We present results of the tests, in particular the efficiency of energy transfer from collector to storage.

## Apply to be<br> considered for a student <br> &nbsp; award (Yes / No)?

No

## Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

Yes

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