



Sandia National Laboratories

Dual Laser Alignment of Solar Concentrators

POTENTIAL MARKET APPLICATIONS

Concentrated Solar Power

-Troughs

-Stirling Dishes

-Solar Towers

BENEFITS

Permits Real-Time Alignment while the Concentrator Remains Fully Functional

Independent of Sunlight and Weather Conditions

No Line of Sight Limitations

Uses Minimal Hardware

Simplistic Addition to the System

INTELLECTUAL PROPERTY

US PATENT # 6597709
(SD # 5894)

TECHNOLOGY SUMMARY

The efficiency of Concentrated Solar Power systems is limited by the accuracy and alignment of the lenses or mirrors that direct the solar rays on to a specified focal point. The present invention uses a dual laser alignment approach to eliminate the common problems associated with conventional single laser alignment methods.

The dual laser system allows for proper alignment to be solely dependent on the target laser coupled with the appropriate focal point position.



TECHNOLOGY READINESS LEVEL

Sandia estimates this technology at approximately a TRL 5. Key components of this technology have been demonstrated in relevant environments.

LICENSING CONTACT

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