

TECHNOLOGY READINESS LEVEL: 9

TECHNOLOGY IS IN FINAL FORM AND HAS BEEN PROVEN TO WORK IN THE INTENDED FIELD OF USE.

US PATENT PENDING ON

SD # 11722

TECHNOLOGY SUMMARY

Sandia has developed a cheap, efficient, and accurate method of measuring the irradiance from solar reflections using a digital camera. Measurements of reflected solar irradiance is of great importance to industry, military, and government agencies to assess potential impacts of glint and glare from growing numbers of solar power installations around the world. In addition, this measurement technique can be used to monitor and maintain system performance for concentrating solar power applications.

This disclosure also covers the development of a web-based tool that allows users to upload images of the sun and reflection to automatically calculate the irradiance distributions and the potential impact of glare. Current methods use moving wands which are more expensive and require more complex machinery and operating procedures.



POTENTIAL APPLICATIONS

- Concentrated Solar Power
- Electric Utility
- Photovoltaics
- Public Safety

TECHNOLOGICAL BENEFITS

- Significantly cheaper, faster & easier to implement
- Can be coupled with Sandia-developed web-based tool that will calculate irradiance distributions & potential glare impact
- Can be used to monitor & maintain system performance

TECHNOLOGY INQUIRY?

For more information or licensing opportunities contact us at

ip@sandia.gov

or

<https://ip.sandia.gov>