

## CIEMAT's PhD grant. Presentation of activities carried out at PSA.

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The following paper presents the activities carried out at Plataforma Solar de Almeria to date in a CIEMAT's PhD grant within the framework of the National Program for Scientific Research, Development and Technological Innovation 2004-2007.

The duration of the grant is 48 months, a mid-term progress report of about 1000 words must be delivered at the month 24 on the activities carried out and results obtained, assessing the achievements and the plan of work for the following 24 months.

The tasks performed within this grant are the following:

- Understanding of the experimental measurement methods for solar concentrated radiation in central receiver systems. Gaining operation experience with the PROHERMES2A solar flux measurement device, performing flux and IR measurements in a Molten Salt Receiver attaining up to 1 MW/m<sup>2</sup> solar radiation flux density.
- Understanding of heliostats and heliostats field simulations, as well as optic quality and targeting concepts. Acknowledgment of the current heliostat canting method and optical characterization at the PSA, gathering experience in the evaluation of heliostats and heliostats field, using the Fiat\_Lux simulation code, achieving the complete optical characterization of the Martin Marietta heliostats field at PSA within the HYDROSOL II Project.
- Collaboration in the design, assembly and operation of the flux measurement system in the Martin Marietta heliostats field at PSA, also within the HYDROSOL II Project.

The future tasks aim to the improvement of existing flux measurement methods and development of new experimental ones, optical characterization and canting as well as new design techniques and optimization of heliostats field.