

Location of the infrastructure : Freiburg, Germany

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Objectives :

- Investigation of the photodegradation of entire PV-modules exposed to UV irradiation under controlled environmental conditions

Main features :

1. UV-irradiation of 100W/m² with enhanced UV-B part in dry ambience cabinet



2. UV-irradiation of 200W/m² in humid environment in a climatic cabinet



3.

Limitations or constraints :

Module size (max) : 1,8 x 1,3m,

Typical services or results :

Module temperature and ambient temperature and humidity are monitored. IV curves, and electroluminescence can be obtained. Support will be provided to define the experiment and to analyze the resulting raw data. Users will then be able to analyze the measurements with their own favorite tools.

Examples of research projects :

To develop procedures for advanced failure analysis, to elaborate database on material properties and degradation mechanisms.