TER-ENE: Cristalline silicon Photovoltaic Laboratory - ENEA Research Center Casaccia

Rome (Italy)

Field of activity of the research laboratory:

The TER Department, inside ENEA, promotes research and development on Advanced Energy Technologies and Renewable Energy Sources. In particular R&D on Photovoltaics covers a wide spectrum of activities in the field being involved on Silicon (amorphous and crystalline).

Name of researchers involved: Dr. Massimo Izzi
Simona De Iuliis
Luca Serenelli

Languages spoken: English, Italian

Since 20 years the TER-ENE-FORI group is involved in the development of photovoltaic devices in the laboratories located in the "Casaccia" research center. The work is focused on:

1) Innovative, high efficiency and low cost crystalline silicon based solar cells;

2) Low temperature processes, useful for innovative and high efficiency amorphous silicon/crystalline silicon heterojunction solar cells;

3) Cuprous oxide (Cu2O) based solar cells;

4) Solar cells complete characterization, also for external private companies working in the PV manufacturing.

The know-how cover photolithography, diffusion, oxidation, advanced screen printing, laser grooving and plasma processes. All the required facilities for this are available, together with the most important characterization techniques for the semiconductors and for the photovoltaic devices.

Website ENEA: http://wwwcas.casaccia.enea.it/sicri/

Special rules of the laboratory to be aware of:

As the laboratory is equipped with chemistry, lasers and high temperature furnaces clean room safety rules are mandatory.

Facilities available:

Canteen and transport services

Working space for participants:

Students are requested to bring their own laptop. If not available, please contact us.