# Advanced workshop on

# solar energy conversion

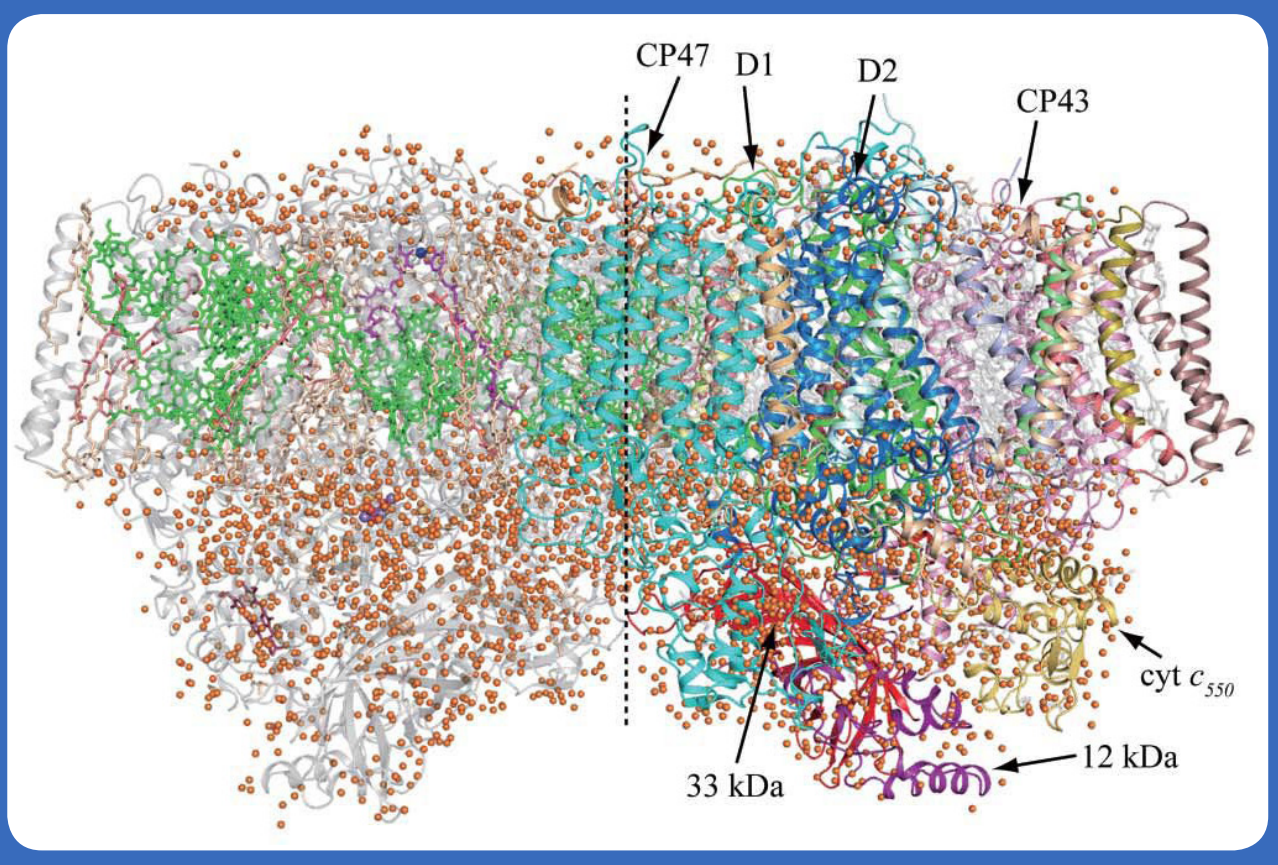
Renewable energy resources are needed to meet our clean energy demands. Since any long term energy supply must be based on solar energy, photovoltaic energy conversion will become indispensable in the future.

The transition from the conventional energy, based on fossil fuels or nuclear fission, to sustainable energies, is presently hampered by the low efficiencies or high costs of the available materials. The development of new materials by engineering their structure at the nano-scale is recognized to be the key issue which could increase the performance of both renewable energy conversion and energy storage. In this sense, new materials are a of crucial importance for a possible transition towards a more sustainable energy economy.

The Workshop will consist of invited lectures addressed by leading researchers in the field, as well as oral presentations. Also, a poster session will be organized.

## The main topics covered in this workshop are:

- ***photovoltaics***
- ***artificial photosynthesis***
- ***electrocatalysis***
- ***batteries***




**The workshop is organized by:**

- UNESCO Chair on Sustainable Development at Horia Hulubei Foundation (Magurele-Bucharest)
- National Institute for Materials Science (Magurele-Bucharest)
- Faculty of Physics, University of Bucharest
- Abdus Salam International Centre of Theoretical Physics (Trieste)
- Horia Hulubei National Institute of Physics and Nuclear Engineering (Magurele-Bucharest)

**Scientific directors:** Teketel Yohannes Anshebo (Addis Ababa), Stefan Antohe (Bucharest), Ionut Enculescu (Bucharest), Joseph Niemela (ICTP)
**Scientific secretary:** Victor Barsan (Bucharest)
**Local organizers:** Sorina Iftimie, Adrian Radu, Alin Velea (Bucharest)

## 21-23 May 2012, Bucharest, Romania