



University of Nova Gorica, Graduate School

doc. dr. Urška Lavrenčič Štangar
Vipavska 13, p.p. 301, SI-5001 Nova Gorica, tel.:05 3315 241, fax:05 3315 296, e-mail: urska.lavrencic@p-ng.si

INVITATION TO THE LECTURE

The Status and Future of Solar Cells

dr. Urša Opara Krašovec
Faculty of Electrical Engineering, University of Ljubljana

Thursday, November 8th 2007 at 15:00
Lecture hall 201 of the School of Environmental Sciences,
Via Croce 3, Gorizia, Italy

Solar cells are basic building blocks for sustainable and environmentally acceptable generation of electricity. Their application potential is immense, making them the hope of future power supply concepts. Their modular construction is a great advantage. It means that the full range from the smallest milliwatt applications to hundred megawatt power stations can be served with these cells. And sufficient solar energy is available everywhere.

At present, crystalline silicon solar cells in their different forms (monocrystalline, multi-crystalline, ribbon) have a market share of more than 90%. The rest is provided by thin film technologies (amorphous Si, CIGS, CdTe). Beside the continuous R&D of the commercially available and well accepted photovoltaic technologies there is a special emphasis concentrating on the R&D of the innovative technologies for solar energy to electrical conversion. In last years organic solar cell and dye-sensitised solar cell technologies have been recognised as promising innovative photovoltaic technologies with the potential of low cost production methods. Up to now, no commercial products exist. Despite the good progress in the last years, major issues like long-term stability, maximum attainable solar efficiencies and industrial production methods still have to be clarified. The state-of-the-art together with the future perspectives of dye-sensitised solar cell technology will be presented.

Kindly invited!