

# PV

## Technology Development & Market Trends

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#### AHK:

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### Organization Contributors

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4-5 October 2010



Athens, NTUA, Rectorate, Auditorium

## **Monday 4, October** **Energy Generation**

### **9:00-9:30, Opening**

**Chairman: D. Papadimitriou, NTUA**

- Prof. S. Simopoulos, NTUA-Rector
- Prof. M. Santamouris, CRES-President
- Ch. Kalyviotis, HELAPCO-President
- Dr. M. Knapp, AHK-Director

### **9:30-10:10, 1<sup>st</sup> Session: “Industrial Activities”**

**Chairman: Ch. Panagopoulos, NTUA**

- *The current state of the PV-Industry in Greece* (G. Vokas) HELAPCO
- *PV investment challenge in Greece* (M. Knapp) AHK

### **10:10-10:30, Coffee Break**

### **10:30-12:30, 2<sup>nd</sup> Session: “PV and related Production Activities in Greece”**

**Chairman: S. Tselepis, CRES**

- *PV module assembly* (N. Chatziniolaou) ExelGroup S.A.
- *Thin Film Micromorph PV Module Production in Greece* (A. Zachariou) HelioSphera
- *Production-Line of Si wafer based Solar Cells* (A. Papachristou) Silcio S.A.
- *Production-Line of Si wafer based Solar Cells* (S. Pitarokilis) Solar Cells Hellas S.A.
- *PV module assembly* (E. Kastanakis) Stibetherm S.A.
- *Optoelectronic Systems for Characterization of PV Cells* (G. Papastergiou) Optronics S.A.

### **12:30-13:30, Lunch Break / Project Planning**

### **13:30-15:30, 3<sup>rd</sup> Session: “Developing Materials-Science & Processing Technologies I”**

**Chairman: D. Manolakas, NTUA**

#### **CIS/CIGS Technology**

- *ILGAR Buffer-Layers for Efficient and Stable Chalcopyrite Solar Cells – from Lab to Industry* (Ch.-H. Fischer\*, N. A. Allsop, S. Gledhill, M. Krüger, T. Köhler, R. Saez, M.-Ch. Lux-Steiner) HZB
- *3D Simulations of a  $\text{CuInS}_2$  Thin Film Heterojunction Solar Cell with a Point Contact/Defect Passivation Structure at the Heterointerface* (N. A. Allsop, R. Nürnberg, M.-Ch. Lux-Steiner, Th. Schedel-Niedrig\*) HZB
- *ZnO Nanostructures for the Applications of Solar Energy* (J. Chen\*, L. Aé, Y. Tang, M.-Ch. Lux-Steiner) HZB
- *CIS, CGS, CIGS Photovoltaics: buffer- and window-layers grown by EBE, PLD, CBD and ECD* (D. Papadimitriou\*, C. Panagopoulos, D. Manolakas, D. Yfantis, M. Kompitsas, S. Tselepis) NTUA, NHRF, CRES

### **15:30-16:30, Coffee Break / Project Planning**

### **16:30-18:30, 4<sup>th</sup> Session: “Developing Materials-Science & Processing Technologies II”**

**Chairman: N. Markatos, NTUA**

#### **III-V Semiconductor Device Technology**

- *Arsenide Semiconductor based Devices* (U. Pohl, P. Vogt\*, D. Bimberg) TU-Berlin
- *Growth and Characterization of In(Ga)N Compounds for Device Applications* (P. Vogt\*, M. Kneissl) TU-Berlin
- *Optical Characterization of nano-Scale Systems* (W. Richter) Uni-Roma

## **Organic Semiconductor Device Technology**

- *Organic Semiconductor Solar Cells* (K. Fostiropoulos) HZB

## **Tuesday 5, October**

## **Energy Management & Storage**

### **9:00-11:30, 1<sup>st</sup> Session: “System Technology”**

**Chairman: N. Hatzigiargyriou, NTUA**

- *PV-Technology Implementation Activities* (S. Tselepis) CRES
- *PV power electronics* (A. Kyritsis) CRES
- *PV system yield evaluation* (J. Nikolettatos) CRES
- *micro-Grids* (N. Hatzigiargyriou) NTUA
- *Latest Technology Developments in the Design of Large Grid-connected PV Stations* (Ch. Protopogeropoulos) Phoenix Solar

### **11:30-12:00, Coffee Break**

### **12:00-13:30, 2<sup>nd</sup> Session: “RES Production Balance with Storage”**

**Chairman: M. Founti, NTUA**

- *Energy Storage Systems supporting Integration of RES in Island Power Systems* (A. Tsikalakis) NTUA
- *Potentials of Fuel Cells as micro-CHP Systems for Domestic Applications* (G. Vourliotakis, D. Giannopoulos and M. Founti\*) NTUA
- *Model-based Optimal Control of a Hybrid Power Generation System consisting of Photovoltaic Arrays and Fuel Cells* (P.L. Zervas, H. Sarimveis \*, J.A. Palyvos, N.C.G. Markatos) NTUA

## **Domestic Applications**

### **13:30-15:00, 3<sup>rd</sup> Session: “Building Integration Technologies”**

**Chairman: D. Yfantis, NTUA**

- *Solar Energy and Phase Change Materials (PCM) in Buildings* (K. A. Antonopoulos, C. Tzivanidis\*, E. D. Kravvaritis) NTUA
- *Energy enhancing structural elements for Hybrid PV-Thermal systems for buildings* (I. Tzouvardakis, V. Kefalas\*) NTUA
- *Morphology of building shells in Athens* (I. Tzouvardakis, E. Trianti\*, A. Stamos) NTUA

### **15:00-15:10, Closure**

**Chairman: D. Papadimitriou, NTUA**

- Prof. S. Simopoulos, NTUA-Rector

### **15:10, Lunch / Project Planning**