

PV

Technology Development & Market Trends

Sponsors

National Technical University of Athens
Solar Cells Hellas S. A.
HelioSphera S. A.
ExelGroup S. A.
Silcio S. A.
Optronics Technologies S. A.

Organizing Committee

NTUA:

Prof. K. Antonopoulos, Prof. N. Hatziargyriou, Prof. D. Manolakos,
Prof. N. Markatos, Prof. K. Moutzouris, Prof. Ch. Panagopoulos,
Assist. Prof. D. Papadimitriou, Assist Prof. Ch. Sarimveis,
Prof. S. Simopoulos (NTUA-Rector), Prof. D. Yfantis, Prof. M. Founti

CRES:

Prof. M. Santamouris (CRES-President), Dr. S. Tselepis

HELAPCO:

Ch. Kalyviotis (HELAPCO-President), Dr. G. Vokas, Dr. A. Zachariou

AHK:

M. Knapp (AHK-Director)

Organization Contributors

Phys. Eng. NTUA K. Anestou, Phys. Eng. NTUA A. Karkatzinou



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
- M. Knapp, AHK-Director

9:30-10:10, 1st Session: “Industrial Activities”

Chairman: Ch. Panagopoulos, NTUA

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

HELAPCO
AHK

10:10-10:30, Coffee Break

10:30-12:30, 2nd Session: “PV and related Production Activities in Greece”

Chairman: S. Tselepis, CRES

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

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

13:30-15:30, 3rd Session: “Developing Materials-Science & Processing Technologies I”

Chairman: D. Manolakas, NTUA

CIS/CGS 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)
- *3D Simulations of a CuInS₂ 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*)
- *ZnO Nanostructures for the Applications of Solar Energy* (J. Chen*, L. Aé, Y. Tang, M.-Ch. Lux-Steiner)
- *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)

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NTUA, NHRF, CRES

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

16:30-18:30, 4th 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)
- *Growth and Characterization of In(Ga)N Compounds for Device Applications* (P. Vogt*, M. Kneissl)
- *Optical Characterization of nano-Scale Systems* (W. Richter)

TU-Berlin

TU-Berlin

Uni-Roma

Organic Semiconductor Device Technology

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

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Tuesday 5, October

Energy Management & Storage

9:00-11:30, 1st Session: “System Technology”

Chairman: N. Hatzigiargiouri, NTUA

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

CRES

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Phoenix Solar

11:30-12:00, Coffee Break

12:00-13:30, 2nd Session: “RES Production Balance with Storage”

Chairman: M. Founti, NTUA

- *Energy Storage Systems supporting Integration of RES in Island Power Systems* (A. Tsikalakis)
- *Potentials of Fuel Cells as micro-CHP Systems for Domestic Applications* (G. Vourliotakis, D. Giannopoulos and M. Founti*)
- *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)

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Domestic Applications

13:30-15:00, 3rd 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)
- *Energy enhancing structural elements for Hybrid PV-Thermal systems for buildings* (I. Tzouvadakis, V. Kefalas*)
- *Morphology of building shells in Athens* (I. Tzouvadakis, E. Trianti*, A. Stamos)

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15:00-15:10, Closure

Chairman: D. Papadimitriou, NTUA

- Prof. S. Simopoulos, NTUA-Rector

15:10, Lunch / Project Planning