

3rd International Workshop on CIGS Solar Cell Technology 16-19 April



Competence Centre Thin-Film- and Nanotechnology for Photovoltaics Berlin

Problems or questions: tfw@pvcomb.de / +49 171 2865807

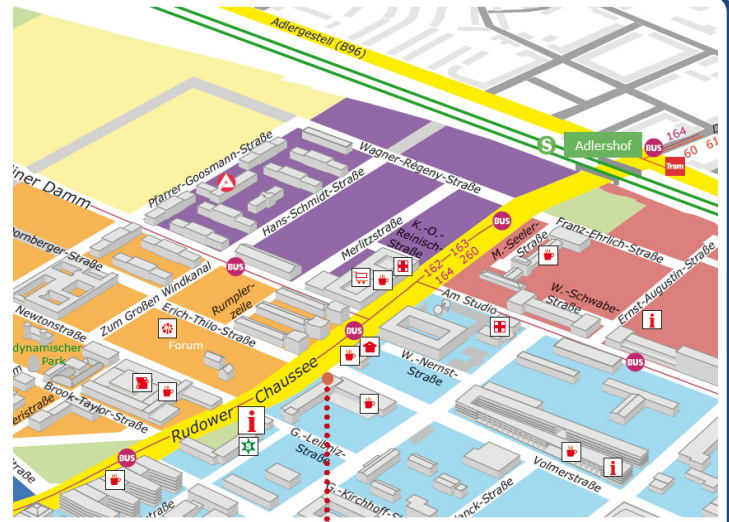
Program overview	Monday, 16 th	Tuesday 17 th	Wednesday 18 th	Thursday 19 th
Event	<i>Get-together</i>	<i>Workshop + Postersession</i>	<i>Workshop</i>	<i>Shared Session Thin-Film Industry Forum</i>
Time	19:00	9:00 – 18:00	9:00 – 18:00	9:00 – 13:00
Venue	Hotel Alexander Plaza	WISTA	WISTA	WISTA

Dinner Cruise, Wednesday 18th, 18:30-21:00
Afterwards shuttle bus from boat to Alexanderplatz

WISTA Conference Venue



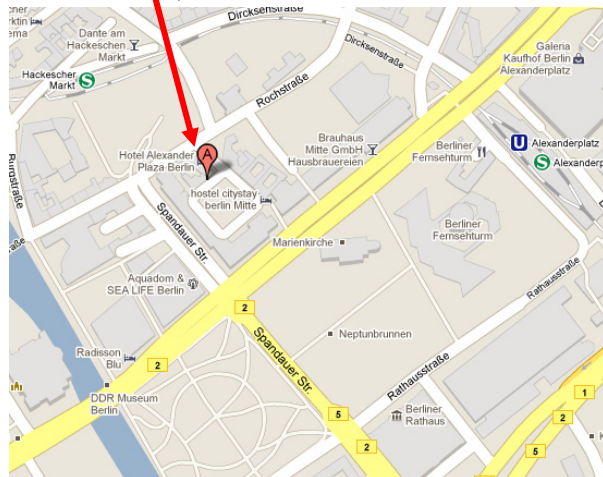
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Eventlocation:
12489 Berlin

WISTA-Management GmbH
Rudower Chaussee 17

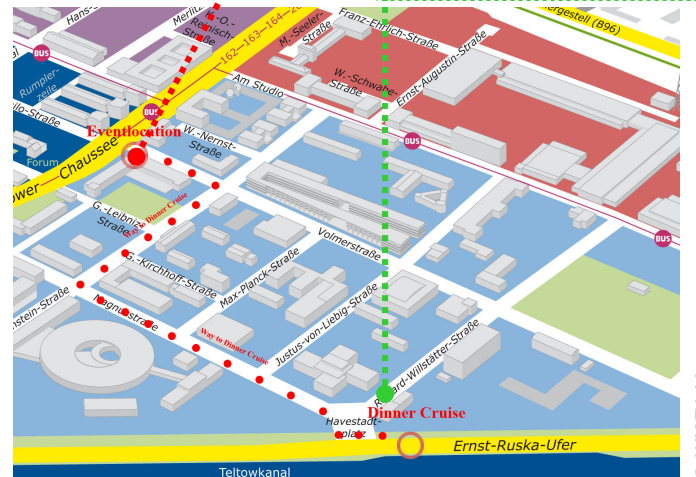
Hotel Alexander Plaza Rosenstr. 1, 10178 Berlin



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800m walk or
shuttle bus

Dinner Cruise Havestadtplatz



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3rd International Workshop on CIGS Solar Cell Technology



Tuesday, 17 April

8:00	Check in		
9:00	Welcome	Hans-Werner Schock Rutger Schlatmann	Helmholtz-Zentrum Berlin PVcomB
9:15	LATEST ACADEMIC RESULTS		
9:15	Critical issues to be developed for cost- and performance-competitive CIGS technology	Shigeru Niki	AIST
9:45	Development of CIGS solar cells in China	Xudong Xiao	University of Hong Kong
10:15	High efficiency CIGS solar cells using a fast in-line process, growth and delivery of Na	Marika Edoff	Uppsala University
10:45	Coffee Break		
11:15	LATEST ACADEMIC RESULTS (continued)		
11:15	Cu(In,Ga)Se₂ solar cells without buffer layer by band control of transparent electrode	Takashi Minemoto	Ritsumeikan University
11:45	CIGS with Cd-free Buffer Layers on Flexible Substrate Fabricated by non-vacuum Processes	Chien-Chih Chiang	ITRI
12:15	Lunch Break		
13:45	INDUSTRIAL PRODUCTION I		
13:45	13% Average Module Efficiency in Mass Production of Large-Area Cu(In,Ga)Se₂ Solar Modules – Road Map to 16%	Axel Neisser	Soltecture
14:15	Research and development of chalcogenide materials for solar cells	Stefan Jost	Avancis
14:45	Coffee Break		
15:30	NOVEL APPROACHES		
15:30	Industrial developments of electrodeposited CIGS as non vacuum, low cost PV	Veronica Bermudez	NEXCIS
16:00	ROHS compatible buffer layers for CIGS-based solar modules – First results from the Photovoltaic Innovation Alliance Project	Niklas Papanthasiou	HZB / PVcomB
16:30	Study of the behaviour of CIGS thin film solar cells under light concentration	Laurent Lombez	IRDEP
17:00	POSTERSESSION & DRINKS		

Wednesday, 18 April

8:30	Check in		
9:00	INDUSTRIAL PRODUCTION II		
9:00	Leading Edge CIGS Turnkey	Johannes Segner	Manz CIGS Technology
9:30	Equipment for Research and Production of CIGS-Solar Cells	Bernhard Cord	SINGULUS Technologies
10:00	Success factors for CIGS	Lars Stolt	Solibro
10:30	Coffee Break		
11:00	ANALYTICS		
11:00	CIGS absorber growth studied by means of in situ X-ray diffraction and fluorescence	Alfons Weber	HZB
11:30	Point defects and non-stoichiometry in CIGS absorber layers	Johann Pohl	TU Darmstadt
12:00	Spectroscopic Analysis of Interfaces in CIGS cells	Clemens Heske	KIT
12:30	Cu₂ZnSnS₄ thin-film solar cell absorbers illuminated by soft x-rays	Markus Bär	HZB
13:00	Lunch Break		
14:15	FLEXIBLE SUBSTRATES		
14:15	CIGS Efficiency Increase in Production	Atiye Bayman	Miasolé
14:45	Sodium in Cu(In,Ga)Se₂ solar cells: beneficial influences & damp heat stability	Felix Daume	Solarion
15:15	Manufacturing flexible CIGS solar cells and BIPV modules	Tobias Enzenhofer	Global Solar
15:45	Coffee Break		
16:30	FLEXIBLE SUBSTRATES (continued)		
16:30	High efficiency flexible CIG solar cells on different substrates	Adrian Chirila	EMPA
17:00	Na supply for CIGS thin-film solar cells and modules on non glass substrates	Roland Würz	ZSW
17:30	End of Workshop		
18:00	Walk or shuttle to Dinner Cruise		
18:30	Dinner Cruise („Cast Off“ 18:45)		
21:00	Return Dinner Cruise, Shuttle Bus to Berlin-Alexanderplatz		

Thursday, 19 April

Shared Session with Thin-Film Industry Forum:



Thin-Film Industry Forum 2012		Shared Session with 3rd International Workshop on CIGS Solar Cell Technology
Thursday, 19 April 2012		
8:00	Registration and get together with snacks and drinks	
	Opening session: Thin-film PV – Concept and Reality	Market situation worldwide: Where are the future thin-film markets?
	Key issues: Where does the thin-film industry actually stand? What are its prospects? What is the political environment? How should the industry react if Chinese makers offer crystalline modules for 60 €cents? How is the financing situation?	Key issues: What is the outlook for thin-film's market share worldwide? Does the future belong to regions having high solar irradiation without incentive systems? Where does thin-film have a market advantage over crystalline modules?
9:00	Opening speech	
	• Karl-Heinz Remmers, Solarpraxis AG	
9:15	EPIA update on supply and demand – Perspectives for thin-film PV	11:30 Thin-Film Markets Worldwide: Where are the most promising markets for thin-film PV and why?
	• Dr. Winfried Hoffmann, EPIA (European Photovoltaic Industry Association)	• Matthew Feinstein, Lux Research
9:45	Thin-Film Industry – current situation and future perspectives: Results of Bank Sarasin's sustainability study about the solar industry	11:50 Will thin-film win in India?
	• Matthias von Armansperg, ACCELIOS Solar GmbH	• Madhavan Napoothiri, RESolve Energy Consultants
10:15	Market outlook – is finance the bottleneck for thin-film PV?	12:10 Challenges and opportunities for thin-film PV in the MENA region including Turkey
	• Götz Fischbeck, consultant	• Karim Asali, First Solar GmbH, tbc
10:45	Questions and discussion	12:30 Thin-film PV – current situation in the US market and its potential
11:00	Coffee break	• Dirk Morbitzer, Renewable Analytics
		12:50 Questions and discussion
		13:00 Lunch