

IW-CIGSTech 10 – Workshop Program

23rd May 2019: Industrial Day @ École Polytechnique

24th May 2019: Scientific Day @ École Polytechnique / IPVF Paris

Time	Title / Subject	Presented by
Thursday, 23rd May 2019: Industry Day		
09:00	Registration / Coffee / Putting up of Posters	
Introduction		
09:30	Opening Session	Hosts and organizers of IW-CIGSTech 10 (IPVF, École Polytechnique, ZSW, HZB)
CIGS Module Manufacturing (Chair: Prof. Dr. Rutger Schlatmann, HZB)		
10:00	Record cell 1cm ² -sized Cd-free CIGS _{Se}	Dr. Motoshi Nakamura (Solar Frontier)
10:20	Industrial status and new technologies at Solibro	Philipp Kratzert (Solibro Hitech)
10:40	Advanced characterization of full-size CIGS modules	Peter Borowski (Avancis)
11:00 Coffee Break		
Flexible CIGS Solar Cells and Modules (Chair: tbd)		
11:30	Industrial challenges in CIGS thin film solar manufacturing	Atiye Bayman (MiaSolé)
11:50	Flexible CIGS Development at Global Solar Energy	Baosheng Sang (Global Solar)
12:10	Rapid, in-line sputtering of complete CIGS solar cells on stainless steel substrates	Patrice Bras (Midsummer)
12:30 Light Lunch / Poster Session		
CIGS Module Equipment and Characterization (Chair: tbd)		
13:30	Metal Grids for coming CIGS modules	Timo Freund (Nice Solar Energy)
13:50	Economy and Efficiency Improvements for Thin-Film PV While Addressing Challenges for Coating Process	Martin Fischer (Von Ardenne)
14:10	Evaporation sources and solutions for photovoltaic applications	Philippe Ley (RIBER)
14:30 Coffee Break		
CIGS Perspectives (Chair: tbd)		
15:00	NEDO program in Japan	Dr. Shigeru Niki (AIST)
15:20	High efficiency CIGS with Ag	Olle Lundberg (Solibro)
15:40	Alkali Diffusion in CIGS	Dr. Roland Würz (ZSW)
CIGS Technology, Manufacturing, Application and Market Issues		
16:00	Cost Modeling and Roadmapping for CIGS Solar Cells	Kelsey Horowitz (NREL)
16:20	Poster Pitches and Poster Award	2 mins pitch per poster / Committee
17:20	Discussion on Technology, Manufacturing, Application issues for cost effectiveness and developing the market	Tbd
18:10	[Surprise Event]	
19:00	Leave for downtown Paris	
20:00 Evening Event with Dinner Speech Le train bleu, Gare de Lyon		

Friday, 24th May 2019: Scientific Day

9:00		Coffee	
CIGS Tandem and Characterization (Chair: Prof. Dr. Ayodhya N. Tiwari, EMPA)			
9:30		CIGS for tandem solar cells	Thomas Feurer (EMPA)
9:50		Adapting the CIGS bottom cell for high-efficiency two-terminal CIGS-perovskite tandems	Dr. Tobias Bertram (HZB)
10:10		CIGS Perovskite tandem development at ZSW	Dr. Erik Ahlswede (ZSW)
10:30		CIGS developments for tandem solar cells	Hans Linden (Solliance)
10:45 Coffee Break			
11:05		Atomic-scale structure of CIGS	Prof. Dr. Claudia Schnohr (University of Leipzig)
11:25		Challenges in admittance measurements in CIGS solar cells	Dr. Florian Werner (University of Luxembourg)
New Alloys and emerging materials (Chair: Prof. Dr. Susanne Siebentritt, University of Luxembourg)			
11:45		Effects of Ag alloying and surface treatments on CuInSe_2	Prof. Dr. William N. Shafarman (University of Delaware)
12:05		High bandgap CIGS solar cells using Ag-alloying	Prof. Dr. Marika Edoff (University of Uppsala)
12:25		Co-evaporated $\text{Cu}(\text{In,Ga})\text{S}_2$ thin films: process issues, materials properties and device performance	Prof. Dr. Nicolas Barreau (IMN-Nantes)
12:45 Lunch and Poster Session			
13:45 Poster Session			
Concepts for Contacts (Chair: Prof. Dr. Marika Edoff, University of Uppsala)			
14:30		Charge carrier separation in solar cells: Comparison of CIGS and Perovskite	Prof. Dr. Uwe Rau (Jülich)
14:50		Optical design of ultra-thin chalcopyrite PV devices	Janez Krc (University of Ljubljana LPVO)
15:10		Highly reflective back contacts for ultrathin CIGS solar cells	Dr. Stéphan Collin (C2N-Palaiseau)
15:30		Dielectric based surface passivation approaches for CIGS, status and outlook	Prof. Dr. Bart Vermang (UHasselt/imec - EnergyVille)
Final			
15:50		Closing remarks and summary	
16:10		Lab-Tour IPVF	
17:00		End	