



Interfaces in Emerging Chalcogenide Based Solar Cells

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Thursday 23th April 2026

Bucharest time, Romania (EEST)

8:00-8:30	Registration	
Introductory session		
8.30-8.40	<i>Foreword</i>	Nicolae Spalatu (TALTECH, EST)
8.40-8.50	<i>Welcome</i>	Lucian Pintilie (NIMP, ROU)
8.50-9.00	<i>Event info/news</i>	Aurelian Galca (NIMP, ROU)
Sb₂(S,Se)₃ solar cell interfaces , Moderator: Elisa Artegiani (UNIVR, ITA)		
9.00-9.20	O01	<i>Electronic Structure of Sb₂(S,Se)₃ and Solar Cell Interfaces by Kelvin Probe and Photoelectron Yield Spectroscopy at Ambient Pressure</i>
		Marin Rusu (HZB, DEU)
9.20-9.40	O02	<i>Atomic Layer Deposited SnO_x Interlayer for Interface Passivation in Co-Evaporated Sb₂Se₃ Solar Cells (online)</i>
		Hoang Van Quy (VINUNI, VNM)
9.40-10.00	O03	<i>Interface-induced conformal growth of ultrathin Sb₂S₃ for high efficiency TiO₂-based photovoltaics</i>
		Hadeer Hussien (TALTECH, EST)
10.00-10.30	Coffee Break & Poster Session	
Sb₂(S,Se)₃ absorber engineering & intrinsic properties , Moderator: Natalia Maticiu (HZB, DEU)		
10.30-10.50	O04	<i>From Toxic to Sustainable: Low-Toxicity Solvent Strategies for High-Performance Sb₂S₃ Solar Cells</i>
		Lucia Leonat (NIMP, ROU)
10.50-11.10	O05	<i>Solution-grown antimony sulfide selenide segmental absorber films for thin-film heterojunction solar cells</i>
		Natalia Kujawska (P-LODZ, POL)
11.10-11.30	O06	<i>Intrinsic and Extrinsic Stability Factors in Sb₂S_{3-x}-based solar cells</i>
		Cristina Besleaga (NIMP, ROU)
11.30-11.50	O07	<i>Decoupling growth kinetics and Sb₂S₃ absorber thickness via additive-assisted hydrothermal synthesis and post-growth etching (online)</i>
		Evgeniia Gilshtein (DTU, DNK)
11.50-12.10	O08	<i>Environment-Induced Defect Dynamics in Sb₂Se₃ Thin Films for Emerging Chalcogenide Solar Cells</i>
		Gokhan Yilmaz (MAKU, TUR)
12.10-12.30	O09	<i>Effect of TiO₂ Electron Transport Layer architecture on Spray Pyrolysis Deposited Sb₂S₃ Thin Films for Solar Cells</i>
		Rayene Merah (U-Constantine, DZA)
12.30-12.50	O10	<i>Air annealing of the CdS layer to improve Sb₂Se₃ devices efficiency</i>
		Elisa Artegiani (UNIVR, ITA)
12.50-14.20	Lunch & Poster session	
14.20-17.00	Practical/interactive discussions*	
		A. solution processed chalcogenides, HTLs, ETLs B. optoelectrical characterization and modelling (including DTLS and TSC) C. structural and compositional characterisation (FIB, TEM, SEM, XPS) D. First-principles calculations
18.00-22.00	NetWorking in Fabrica (downtown Bucharest)	

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Summary of interaction discussions (the day before) Best practices , Moderator: Nicolae Spalatu (TALTECH, EST)			
8.30-8.40	B01	<i>Solution processed chalcogenides</i>	Natalia Kujawska Katharina Dehm
8.40-8.50	B02	<i>Electrical measurements</i>	Cristina Besleaga Elisa Artegiani
8.50-9.00	B03	<i>Structural investigations</i>	Aurelian Galca Cristian Radu
9.00-9.20	B04	<i>Interfaces</i>	Charif Tamin Abdessamad El Kanouny
CdTe solar cells , moderator: Charif Tamin (INL, FRA)			
9.20-9.40	O11	<i>Sb₂Se₃ as an effective dopant for CdTe solar cells</i>	Elisa Artegiani (UNIVR, ITA)
9.40-10.00	O12	<i>The influence of the deposition working power on some physical properties of RF-sputtered cadmium telluride films for photovoltaic applications</i>	Sorina Iftimie (UNIBUC, ROU)
10.00-10.20	O13	<i>CdTe solar cells for tandem application with Silicon devices (online)</i>	Mariyam Mukhtar (UNIVR, ITA)
10.20-10.40	O14	<i>Effect of Large Bi-Exciton Binding Energy in Type II CdSe/CdTe QDs on Efficiency of MEG Solar Cells</i>	Stanko Tomic (VINCA, SRB)
10.40-11.00	Coffee Break & Poster Session		
Exotic and promising chalcogenides , Moderator: Marin Rusu (HZB, DEU)			
11.00-11.20	O15	<i>Selenium alloying in BaZrS₃ perovskite for efficient tuning of properties</i>	Lorenza Romagnoli (UNIROMA1, ITA)
11.20-11.40	O16	<i>First-Principles Determination of Pnictogen Chalcohalide Band Alignments for Improved Solar-Cell Applications</i>	Cibrán Lopez (UPC, ESP)
11.40-12.00	O17	<i>TOPCon-Inspired Dielectric Tunnel Interfaces for Wide-Bandgap Se Solar Cells</i>	Charif Tamin (INL, FRA)
12.00-12.20	O18	<i>Tuning the Structural and Charge Transport Properties of GeS Thin Films</i>	Audrius Drabavičius (FTMC, LTU)
12.20-12.40	O19	<i>Interface Engineering of the c-TiO₂/SnS Junction for Enhanced Thin-Film Solar Cell Performance</i>	Abdessamad El Kanouny (U Hassan II, MAR)
12.40-14.10	Lunch & Poster session		
A Tale of a Magic Characterization Method & Moon of forehead , Moderator: Sorina Iftimie (UNIBUC, ROU)			
14.10-14.30	O20	<i>Hyperspectral photoluminescence mapping and analysis on chloride-activated chalcogenide CdSe thin films</i>	Bohuslav Rezek (CVUT, CZE)
14.30-14.50	O21	<i>Tuning the Optoelectronic Properties of Wide-Bandgap Cu₂ZnSnS₄ by Silver Substitution, Sodium and Lithium Co-Doping and Thermal Annealing</i>	Messaoud Tamin (UBE, FRA)
14.50-15.10	O22	<i>How the molybdenum process influences the growth of CZTS: A comparative study of different lab-grown and commercial molybdenum substrates</i>	Alessandro Veneri (UNIVR, ITA)
15.10-15.30	Closing remarks, impressions, perspectives and farewell		
15.30-17.30	Visit of NIMP laboratories		

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Posters (during the coffee breaks and lunches in both days of the workshop)		
P01	<i>NiO_x nanoparticles as HTM in semi-transparent Sb₂S₃ solar cells</i>	Alessandra Rocchina Palmieri (TALTECH, EST)
P02	<i>Synthesis and Processing of Colloidal Nanocrystals for Sustainable Thin-Film Photovoltaic Devices</i>	Katharina Dehm (FAU, DEU)
P03	<i>Impact of hole transport layers on the performance of Sb₂S₃ solar cells</i>	Viorica Stancu (NIMP, ROU)
P04	<i>Influence of Post-deposition Annealing Temperature and Time on Sb₂S₃ films and Solar Cells grown by Ultrasonic Spray Pyrolysis</i>	Robert Aleksander Liiv (TALTECH, EST)
P05	<i>FIB-SEM tomography of structural, chemical and electronic properties of Sb₂Se₃ solar cell layer stacks</i>	Jaroslav Kuliček (CVUT, CZE)
P06	<i>Morphological and structural analysis of Sb₂(S,Se)₃ thin films based solar cells</i>	Cristian Radu (NIMP, ROU)
P07	<i>Development of Antimony Sulfide Selenization to From Antimony Sulfide Selenide Using Selenourea as a Selenium-Source</i>	Jekaterina-Ketrin Rostsupkina (TALTECH, EST)
P08	<i>Effect of the Annealing Atmosphere on the Properties of the Cu₂ZnSn(S,Se)₄ (CZTSSe) Thin Films and Their Photovoltaic Performance</i>	Mehmet Ali Olgar (OHU, TUR)
P09	<i>Influence of Annealing Temperature on the Properties of Cu₂ZnSnS₄ Thin Films Obtained via Ligand Exchange</i>	Roman Golubovski (UKIM, MKD)
P10	<i>Tunable Ag Incorporation in Electrodeposited Kesterite CZTS Thin Films for Photovoltaic Applications</i>	Mohamed Yassine Zaki (UM6P, MAR)
P11	<i>Optimization of Growth Parameters in Sol-Gel-Derived Bi₂S₃ Thin Films</i>	Hamide Kavak (CU, TUR)
P12	<i>The importance of XPS in the analysis of the dopants in solar cells</i>	Amelia Bocirnea (NIMP, ROU)
P13	<i>Advanced Characterization Techniques for Next-Generation Photovoltaic Technologies</i>	Veton Haziri (UBT, RKS)
P14	<i>Development of chalcogenide semiconductors for photovoltaic applications</i>	Vladimir Dulev (BAS, BGR)
P15	<i>Temporal Anomaly Evaluation and Feature Selection for Real-Time Health Monitoring of Solar Inverter Interfaces in Chalcogenide-Based PV Systems</i>	Ibrahim Ozturk (Osmaniye, TUR)
P16	<i>DFT study of diazonium-derived grafting on SnS surfaces</i>	Avni Berisha (UNI-P, RKS)
P17	<i>Biomass-Derived Activated Carbons as Sustainable Interfacial Materials for Energy Storage and Emerging Chalcogenide Photovoltaic Systems</i>	Murat Yilmaz (Osmaniye, TUR)