

PROGRAMMA SCIENTIFICO della Prima Conferenza Nazionale
della Rete Italiana Fotovoltaico per la Ricerca e l'Innovazione

 Università Milano Bicocca
 22-23 giugno 2023

Rete Italiana del Fotovoltaico

Chair	Presentation	Sessione	Topic	Nome e Cognome	MAIN ORG	Numero	Abstract Title (English)
Claudia Barolo	ORAL	1	Novel concepts	Andrea Lo Mastro	UNICT	27	Ultra-Thin Zr doped Indium Oxide as Transparent Electrode for Solar Cells
				Diego Colombara	UNIGE	29	Cu(In,Ga)Se ₂ photovoltaics from fundamental questions to innovation pathways
				Marco Nicoletto	UNIPD	30	GaN-based InGaN/GaN MQWs solar cells for innovative applications: performance and modeling
				Narges Torabi	UNIVR	33	Analysis of CdSe as Alternative Buffer Layer for Sb ₂ Se ₃ Solar Cells
				Silvia Maria Pietralunga	CNR-IFN	25	Lightwave and light-weight optical concentrator: a small-footprint spectral-splitting solution for asymmetric bifacial 4T modules
				Giorgio Tseberlidis	BICOCCA	55	Cd-free kesterite solar cells featuring TiO ₂ as buffer layer
Mario Tucci		2	Silicon / PSCs / High eff. Cells	Elisa Nonni	CHOSE	36	Mechanically Stacked Two Terminal Perovskite/Heterojunction-Silicon Tandem: A Pathway to Efficiencies Above 30 %
				Marco Balucani	RISETECH	41	iSPLASH: Industrial Selective PLating for Solar Heterojunction
				Matteo Degani	UNIPV	43	Cation passivation and 2D perovskites strategies toward high efficient and stable perovskite solar cells
				Mercy Jelagat Kipyator	UNISI	24	Scenario-based recycling strategies for Perovskite-Silicon Tandem Solar Cells: a harmonized Life Cycle Assessment study.
				Roberto Mosca	CNR-IMEM	7	Single Source Thermal Ablation for all-vacuum preparation of inorganic perovskite solar cells
				Salvatore Antonino Lombardo	CNR-IMM	38	GaAs/Bifacial Si Heterojunction four-terminal system using optical spectrum splitting: indoor and outdoor performance, effect of albedo
				Erica Magliano	CHOSE	9	Stable perovskite solar cells and modules based on novel scalable low-temperature laminable encapsulant passing light soaking, dry heat and humidity freeze test
Andrea Danelli		3	Applications and modules	Alessandro Virtuani	OFFICINASOLE	10	Solar PV Technology: (R)Evolution and Challenges
				Dario Ronzio	RSE	13	Enhancing PV planning and monitoring on Italy with spectral assessment of solar resource
				Federico Bella	POLITO	20	Integrating photovoltaics, supercapacitors and electrochemical reactors for portable devices and industrial chemistry plants
				Giuseppe Calogero	CNR-IPCF	2	Revitalizing Dye-Sensitized Solar Cells: Exploring Applications, Innovations, Progress, and Future Prospects
				Paolo Strazzullo	UNINA Federico II	3	Modelling and economic-environmental analysis of a novel High Vacuum Flat Plate Photovoltaic-Thermal device: comparison between high-performance hybrid and photovoltaic technologies
	Simone Galliano			UNITO	15	Toward transparent and colorless Dye-Sensitized Solar Cells for non-intrusive BIPV	

Chair	Presentation	Sessione	Topic	Nome e Cognome	MAIN ORG	Numero	Abstract Title (English)
David Moser	ORAL	4	<i>Integration and other aspects</i>	Alessandro Lorenzo Palma	ENEA	16	The role of photovoltaics in the rising renewable energy communities. A practical study.
				Andrea Danelli	RSE	5	LCA of high efficiency photovoltaic technologies
				Cristina Cornaro	UNI Tor Vergata	22	Firm solar power generation at different scales: new PV technologies and future scenarios for the high penetration of PV power production (RES4LAZIO and RES4TECH)
				Grazia Barchi	EURAC	19	Renewable Energy Community: an energy modelling approach for their assessment
				Grazia Fattoruso	ENEA	17	A urban solar photovoltaic cadastre at high resolution for facing urban energy poverty and planning the urban CER
				Leonardo Micheli	Sapienza	21	Yield Potential, Cost Effectiveness, and Profitability of Floating Photovoltaics in Europe: Advancing Towards 2030 Energy Goals

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POSTER	P1	<i>Novel concepts</i>	Ana Yancy Segura Zarate	UNITO	59	ZnO Nanoparticles as gellifying agent for quasi solid aqueous electrolyte and their application in Dye-Sensitized Solar Cells
			Elisa Artegiani	UNIVR	34	A comprehensive study of CdSeTe/CdTe devices fabricated by thermal evaporation
			Filippo Annoni	POLIMI	56	Investigation of ZnSnN ₂ deposition by DC and High-Power Impulse Magnetron Sputtering
			Fiorella Tringali	UNICT	26	Doping control in metal oxides transparent electrodes by ion implantation
			Giulia Spaggiari	CNR-IMEM	48	Effect of Cu-doping on crystallization and photovoltaic performance of Sb ₂ Se ₃ thin films.
			Iacopo Benesperi	UNITO	32	Copper dynamic dimers for photovoltaics applications
			Jessica Jazmine Nicole Barrantes	UNIPD	44	Characterization and C-DLTS analysis of antimony selenide solar cells
			Marinella Striccoli	CNR-IPCF	6	Functional nanostructured materials for PV by wet chemistry synthetic routes
			Matteo Bonomo	UNITO	58	Thermosetting Polyurethane resins as sustainable encapsulants and interlayers for emerging photovoltaics
			Michela Prete	UNISDENMARK	57	Scalable transparent organic photovoltaics
			Riccardo Montecucco	UNIPV	31	On the Stabilization of CsPbI ₃ -xBr _x Phase by Lowering Annealing Temperature for Efficient All-inorganic Perovskite Solar Cells
			Salvatore La Manna	UNICT	28	Sputter-Deposited Molybdenum Oxide Films for Enhanced Performance in SHJ Solar Cells
			Simya Olavil Karayi	UNIVR	35	Enhancing the efficiency of Cu ₂ ZnSn(S, Se) ₄ thin-film solar cells through doping with Na, K, and Ge
			Elena Del Canale	UNIPR	68	Mechanochemistry for ferro-photovoltaics: SbSI as a case study for novel-concepts in energy
Daniele Franchi	CNR-ICCOM	74	Synthesis and characterization of new organic precursors of hole-transporting self-assembled monolayers for Perovskite solar cells			
Lorenzo Zani	CNR-ICCOM	75	Luminescent Solar Concentrators: effect of dye structure on fluorescence properties and device performances			

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POSTER	P1	Silicon / PSCs / High eff. Cells	Andrea Zanetta	UNIPV	42	Manipulation of 2D Layered Perovskites Optoelectronic Properties by Crystalline Orientation Control
			Carmen Coppola	UNISI	64	Unveiling the electronic structure and the interfacial features of a novel triphenylamine- and phenothiazine-based hole transport material (HTM1) with MAPI perovskite: a Density Functional Theory study
			Charrier Baptiste	UNITO	65	Innovative phenothiazine-based hole transporting materials for perovskite solar cells
			Daimiota Takhellambam	CHOSE	62	Enhancing Charge Transport in Perovskite Solar Cell: Achieving Over 85.5% Fill Factor Using Benzothioeno-benzothiophene Derivative Interlayer
			Daniel Alencar	UNITO	66	Greener processability of PTAA based HTMs: Introducing Phenothiazine and Benzothiadiazole scaffolds to improve sustainability of flexible perovskite solar cells
			Erica Magliano	CHOSE	37	Two-Step Hybrid Perovskite Deposition: a Novel Crystal Engineering Approach
			Fabio Butrichi	BICOCCA	61	Manganese-substituted kesterite thin films for Earth-Abundant photovoltaic applications
			Gemma Giliberti (presenter)	POLITO	40	Three-terminal perovskite/silicon tandem solar cell with heterostructure bipolar transistor architecture
			Mariaconcetta Canino	CNR-IMM	39	TCO edge exclusion in cleaved Si heterojunction solar cells
			Nadia Barbero	CNRS	63	Synthesis of stable Hole Transporting Materials for Perovskite Solar Cells
			Noah Tormena	UNIPD	45	Semi-Transparent Perovskite Solar Cells: Performance and Perspectives
			Roberto Corso	CNR-IMM	8	Evaluation of 2T and 4T multi-junction modules based on Monte Carlo ray tracing
			Vanira Trifiletti	BICOCCA	60	Kesterite-based hole transport material for stable perovskite solar cells.
	Massimo Izzi	ENEA	71	PV module eco-design: new encapsulant for a full recyclability of photovoltaic modules.		
	P2	Applications and modules	Giorgia Salerno	BICOCCA	73	Dye Sensitized Solar Cells for Ambient Light in Deep Eutectic Solvents
			Roberto Russo	UNINA Federico II	4	High Vacuum Flat Plate Photovoltaic Thermal (PV-T) Collectors: Performance Investigation
			Giosuè Maugeri	RSE	12	A methodology to develop and validate Fault Detection and Diagnosis algorithms through Facility a Test
			Leonardo Micheli	Sapienza	47	Towards the real-time mapping of soiling losses and mitigation strategies: status, perspectives and challenges
			Riccardo Adinolfi Borea	UNIBO	50	Parametric analysis of a bifacial photovoltaic system with an horizontal single axis tracker
			Roberto Corso	CNR-IMM	1	Optical and electrical three dimensional model of bifacial photovoltaic systems: application to various PV installations
			Roberto Speranza	POLITO	49	Integrated solar cells and supercapacitor: a self-rechargeable power source for Internet of Things devices
			Salvatore Valastro	CNR-IMM	46	Preventing lead leakage in perovskite solar cells with a sustainable titanium dioxide sponge
			Pietro Testa	POLITO	11	Radiative cooling of solar cells with low-cost, scalable cementitious materials
Integration and other aspects		Antonio Gagliano	UNICT	52	Photovoltaic systems and hybrid energy storage for achieving zero-energy buildings	
		Federica Marandino	UNINA Federico II	53	Environmental Sustainability and Design of Agrivoltaic Systems	
		Giuseppe Marco Tina	UNICT	51	Energetic evaluations for optimal design of vertical bifacial agrivoltaic systems	
		Giuseppina Santomartino	UNINA Federico II	54	The Guidelines for the Integration of Photovoltaic Systems in Architecture as a supporting tool to verify potential integrability and architectural coherence	
		Marcello Petitta	UNI Tor Vergata	23	Agrivoltaic in greenhouses: technological and social impact of an innovative solution	
		Martina Pelle	EURAC	18	Potential and challenges of coloured integrated photovoltaics (IPV)	
		Marica Canino	CNR-IMM	67	Science Dissemination in Photovoltaics ? ... A "Game" for youngsters	
		Francesco Roca	ENEA	69	VIPERLAB - a H2020 project to empower the European perovskite research	
				70	EERA PV JP to catalyse European energy research in Photovoltaics	
		Mario Tucci	UniPA	72	NEST - Network 4 Energy Sustainable Transition: a boost to innovation within the Italian PNRR found	