

ITW 2023

		March 30		March 31
9:15			Materials & Processing Theory and Modelling (MT)	I.02 - Maria Ibañez
9:45				<i>MT.01</i> - Viviana Sousa
10:00				<i>MT.02</i> - Pablo Cerviño Solana
10:15				<i>MT.03</i> - Norbert Marcel Nemes
10:30				<i>MT.04</i> - José Javier Plata Ramos
10:45				Coffee Break
11:05			Materials & Processing (MP)	I.03 - Sergi Riera Galindo
11:35				<i>MP.01</i> - Clara Gomez
11:50				<i>MP.02</i> - Mario Culebras Rubio
12:05				<i>MP.03</i> - Javier Gainza Martín
12:20				<i>MP.04</i> - Federico Miguel Serrano Sanchez
12:35				Lunch+Posters
14:15		Registration	Materials & Processing Theory and Modelling (MT)	I.04 - Jose Antonio Alonso
14:45				<i>MT.05</i> - Marta Maria González Barrios
15:00		Welcome		<i>MT.06</i> - Duarte Moço
15:15	Other Topics (OT)	I.01 - Jorge Garcia Cañadas		<i>MT.07</i> - Antonio M. Márquez
15:30		<i>OT.01</i> - Óscar Juan Dura		<i>MT.08</i> - Diogo Lopes
15:45		<i>OT.02</i> - Sergio Castro Ruiz	Coffee Break	
16:00		<i>OT.03</i> - Rodrigo Coelho	Devices & Applications (DA)	I.05 - Nuno Ferreira
16:15				<i>DA.06</i> - Ana Pires
16:30	Coffee Break	<i>DA.07</i> - André Pereira		
16:50	<i>DA.01</i> - Olga Caballero	<i>DA.08</i> - Patricia Alegría		
17:05	<i>DA.02</i> - Catarina Bianchi	<i>DA.09</i> - Lorenzo Pimpolari		
17:20	<i>DA.03</i> - Marc Salleras	<i>DA.10</i> - Leyre Catalán Ros		
17:35	<i>DA.04</i> - Álvaro Casí			
17:50	<i>DA.05</i> - Irantzu Erro Iturralde		Closing Session	
20:00		Workshop Dinner		

Thursday, March 30, 2023

15:00 – 15:15	Welcome Address	
15:15 – 16:30	Other Topics	
	Session Chair: <i>António Pereira Gonçalves</i>	
15:15 – 15:45	I.01	Influencing the thermoelectric properties of materials using redox electrolytes, <i>Jorge Garcia Cañadas</i>
15:45 – 16:00	OT.01	Soft thermoelectricity based on hybrid gels, <i>Óscar Juan Dura</i>
16:00 – 16:15	OT.02	A Cr complex solution able to produce a 2.5 times power factor improvement in a nanostructured and porous Sb:SnO ₂ film, <i>Sergio Castro Ruiz</i>
16:15 – 16:30	OT.03	Protective coatings for Cu _{10.5} Ni _{1.5} Sb ₄ S ₁₃ tetrahedrites, <i>Rodrigo Coelho</i>
16:30 – 16:50	Coffee Break	
16:50 – 18:05	Devices & Applications	
	Session Chair: <i>Francisco Brito</i>	
16:50 – 17:05	DA.01	Flexible nanostructured thermoelectric devices grown inside polyester templates, <i>Olga Caballero</i>
17:05 – 17:20	DA.02	Transparent photothermoelectric thin film devices, <i>Catarina Bianchi</i>
17:20 – 17:35	DA.03	Power enhanced all-Si based micro-thermoelectric generators with integrated heat sink, <i>Marc Salleras</i>
17:35 – 17:50	DA.04	Thermoelectric subcooling system to improve the performance of vapour compression refrigeration systems, <i>Álvaro Casí</i>
17:50 – 18:05	DA.05	Optimization of a thermoelectric heat pump system for heating, <i>Irantzu Erro Iturralde</i>
20:00	Workshop Dinner	

Friday, March 31, 2023

9:15 – 10:45		
Materials & Processing / Theory and Modelling		
Session Chair: <i>Óscar Juan Dura</i>		
9:15 – 9:45	I.02	Sintering solution processed nanoparticles: a way to tune microstructure through surface chemistry, <i>Maria Ibáñez</i>
9:45 – 10:00	MT.01	Screen-printing of thin film TEGs from PbSe quantum dots, <i>Viviana Sousa</i>
10:00 – 10:15	MT.02	Nanostructured bismuth telluride thin films grown by electrochemical deposition, <i>Pablo Cerviño Solana</i>
10:15 – 10:30	MT.03	Structural evolution and nanostructure of thermoelectric materials, <i>Norbert Marcel Nemes</i>
10:30 – 10:45	MT.04	High-throughput optimization of the thermoelectric efficiency of chalcogenides through nano-structuring: ab-initio calculations, machine learning and more, <i>José Javier Plata Ramos</i>
Coffee Break		
11:05 – 12:35		
Materials & Processing		
Session Chair: <i>Elsa Branco Lopes</i>		
11:05 – 11:35	I.03	Doping strategies to improve organic thermoelectric performance, <i>Sergi Riera-Galindo</i>
11:35 – 11:50	MP.01	Textile-based wearable TEG by electrochemical coating of felt fibers with conductive polymers, <i>Clara Gomez</i>
11:50 – 12:05	MP.02	Thermoelectric properties of layered nanocomposites based on conducting polymers, <i>Mario Culebras Rubio</i>
12:05 – 12:20	MP.03	Unexpected abrupt bond lengthening in GeTe as the origin of the anomaly in the experimental Seebeck coefficient, <i>Javier Gainza Martín</i>
12:20 – 12:35	MP.04	Investigation of the low-temperature thermoelectric transport and intrinsic electronic structure of half-Heusler TiCoSb, <i>Federico Miguel Serrano Sanchez</i>
Lunch+Posters		

Friday, March 31, 2023

14:15 – 15:45		
Materials & Processing / Theory and Modelling		
Session Chair: <i>André Pereira</i>		
14:15 – 14:45	I.04	High-pressure synthesis of thermoelectric materials, <i>Jose Antonio Alonso</i>
14:45 – 15:00	MT.05	Microwave-assisted synthesis of thermoelectric chalcogenides, <i>Marta María González Barrios</i>
15:00 – 15:15	MT.06	Co-doping tetrahedrite: impact of Nickel and Selenium in thermoelectric properties, <i>Duarte Moço</i>
15:15 – 15:30	MT.07	Physical insights on the chemical factors that influence the thermoelectric properties in Cu- and Ag- based sulvanite, <i>Antonio M. Márquez</i>
15:30 – 15:45	MT.08	SrTiO ₃ – based thermoelectrics prepared by Laser Floating Zone technique, <i>Diogo Lopes</i>
15:45 – 16:00		
Coffee Break		
16:00 – 17:50		
Devices & Applications		
Session Chair: <i>Olga Caballero</i>		
16:00 – 16:30	I.05	Advancements in Laser Floating Zone processing for optimizing the thermoelectric properties of oxide materials, <i>Nuno Ferreira</i>
16:30 – 16:45	DA.06	The impact of collectors/absorbers on the efficiency of photo-thermoelectric devices, <i>Ana Pires</i>
16:45 – 17:00	DA.07	Wireless energy transfer using printable devices based on thermoelectricity: from concept to application, <i>André Pereira</i>
17:00 – 17:15	DA.08	Field operation and modelling of thermoelectric generators for high enthalpy geothermal anomalies, <i>Patricia Alegría</i>
17:15 – 17:30	DA.09	Flexible carbon-based thermoelectric generator with a phase change material for cold-chain monitoring, <i>Lorenzo Pimpolari</i>
17:30 – 17:45	DA.10	Prospects of volcano surveillance powered by thermoelectric generators: the Antarctica challenge, <i>Leyre Catalán Ros</i>
17:45 – 18:00		
Closing Session		

Posters

Friday, March 31, 2023,

12:35 – 14:15

P.01	Implementation of arrays of thermoelectric generators for nanosatellites: evaluation under atmospheric and space conditions, <i>Rui Costa</i>
P.02	On the thermal conductivity of thermoelectric polymers upon doping, <i>Jiali Guo</i>
P.03	Impedance spectroscopy: an excellent tool to fully characterize a thermoelectric device, <i>Jorge García Cañadas</i>
P.04	PDADMA-based solid electrolytes to significantly enhance the power factor of a thermoelectric oxide film, <i>Mauricio Solís de la Fuente</i>
P.05	Characterization of a possible thermoelectric material prepared from natural pyrite, <i>Vanina Gisela Franco</i>
P.06	Synthesis, optical band gap and thermoelectric properties of $\text{Sr}_{1+x}\text{TiS}_{3-y}$ chalcogenide perovskites, <i>Jinan Hussein Awadh Alshuhaib</i>
P.07	Maximizing exhaust heat utilization in light- and heavy-duty driving cycles through phase-change: Simulations and Experimental validation, <i>Rui Carvalho</i>
P.08	Soft thermoelectric materials: design of 3D printed hydrogels, <i>Carlos Martín Andreu</i>