

PROGRAMME

Monday, 29 September 2025

8:30 – 9:00	Registration	
	Opening	Great lecture hall, 1st floor
9:00 – 9:15	Prof. Dr. Gregor Anderluh and Prof. Dr. Nataša Zabukovec Logar: Opening speeches	
9:15 – 9:30	Dr. Salvatore Vasta: EERA-JP introduction	
9:30 – 10:00	Dr. Alenka Ristić: Introduction into porous TCMs	
	Lecture 1	Great lecture hall, 1st floor
10:00 – 10:45	TCMs for Versatile Thermal Energy Storage – From Salt Hydrates to Oxides Assoc. Prof. dr. Peter Weinberger <i>TU Wien, Austria</i>	
10:45 – 11:15	Coffee break	Foyer of the great lecture hall, 1st floor
11:15 – 13:00	Lab work	Synthesis lab, ground floor
13:00 – 14:30	Lunch	Mansard, 2nd floor
	Lecture 2	Great lecture hall, 1st floor
14:30 – 15:15	Synthesis of Nanoporous Adsorbents and Composites Dr. Alenka Ristić <i>National Institute of Chemistry, Ljubljana, Slovenia</i>	
15:15 – 16:30	Lab work	Synthesis lab, ground floor
16:30 – 17:00	Coffee break	Foyer of the great lecture hall, 1st floor
	Short Oral presentations – Synthesis	Great lecture hall, 1st floor
	Impact of Synthesis Variables on the Structural and Sorption Properties of Si/Me- AlPO₄-5 <u>Ann Jini Mathews^{a,b}</u> , Alenka Ristić ^a , Nataša Zabukovec Logar ^{a,c} ^a <i>Department of Inorganic Chemistry and Technology, National Institute of Chemistry, Ljubljana, Slovenia</i> ^b <i>Faculty of Chemistry and Chemical Technology, University of Ljubljana, Ljubljana, Slovenia</i> ^c <i>University of Nova Gorica, Nova Gorica, Slovenia</i>	
17:00 – 19:00	Green Synthesis of MIL-100(Fe) for Adsorption Cooling Applications <u>Sondes Guesmi^a</u> , Luigi Calabrese ^a , Andrea Frazzica ^b ^a <i>Department of Engineering, University of Messina, Messina, Italy</i> ^b <i>National Research Council of Italy – Institute for Advanced Energy Technologies (CNR-ITAE), Messina, Italy</i>	
	Hierarchically Porous Silica Support for TCM <u>Dasol Choi^{a,b,c}</u> , Heiner Friedrich ^{a,b} , Olaf Adan ^{a,c,d} , and Henk Huinink ^{a,c*} ^a <i>Eindhoven Institute for Renewable Energy Systems, Eindhoven University of Technology, Eindhoven, The Netherlands</i> ^b <i>Laboratory of Physical Chemistry, Department of Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, The Netherlands</i> ^c <i>Transport in Permeable Media, Department of Applied Physics and Education, Eindhoven University of Technology, Eindhoven, The Netherlands</i>	

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Comparison of Performance of K₂CO₃ and CaCl₂ Stabilized with LECA and Vermiculite in Thermochemical Energy Storage

Bartłomiej Wajda^a, Łukasz Cieślukiewicz^b, Piotr Łapka^b

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Doped Porous Carbon Composites for Low Temperature Sorption Thermal Batteries

Jan Marčec^{a,b}, Marija Švegovec^{a,b}, Matjaž Mazaj^a, Andraž Krajnc^a, Boštjan Genorio^c, Daniel Lager^d, Fabrizia Giordano^d, Nataša Zabukovec Logar^{a,b}, Alenka Ristić^a

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Earth Alkali Oxalates for Thermochemical Heat Storage

Joey Aarts^a, Caroline Kirk^b, Henk Huinink^a, Olaf Adan^a

^a *Eindhoven University of Technology, the Netherlands*

^b *University of Edinburgh, Scotland*

Mixed Cation Sulfates as Thermochemical Heat Storage Materials

Jakob Smith^a, Peter Weinberger^a

^a *Institute of Applied Synthetic Chemistry, TU Wien, Getreidemarkt 9/163, Vienna, Austria*

19:00 – 20:30

Welcome drinks

Foyer of the great lecture hall, 1st floor

Tuesday, 30 September 2025

	Lecture 3	Great lecture hall, 1st floor
9:00 – 9:45	Understanding and Improving the Performance of TCM Composites Assoc. Prof. Dr. Henk Huinink <i>Eindhoven University of Technology, The Netherlands</i>	
9:45 – 10:45	Hands on	Foyer of the great lecture hall, 1st floor
10:45 – 11:15	Coffee break	Foyer of the great lecture hall, 1st floor
	Lecture 4	Great lecture hall, 1st floor
11:15 – 12:00	Structural Insights Into Porous Adsorbents Prof. Dr. Nataša Zabukovec Logar <i>National Institute of Chemistry, Ljubljana and University of Nova Gorica, Slovenia</i>	
12:00 – 13:00	National Institute of Chemistry guided tour	
13:00 – 14:30	Lunch	Mansard, 2nd floor
	Lecture 5	Great lecture hall, 1st floor
14:30 – 15:15	Thermophysical Methods and Properties of TCM Dr. Daniel Lager <i>Austrian Institute of Technology, Austria</i>	
15:15 – 16:15	Hands on	Foyer of the great lecture hall, 1st floor
16:15 – 16:45	Coffee break	Foyer of the great lecture hall, 1st floor
	Short Oral presentations – Characterisation	Great lecture hall, 1st floor
	Determination of Effective Thermal Conductivity of Thermochemical Composite Material Using Numerical Modeling <u>Natalia Mikos-Nuszkiewicz^a</u> , Piotr Furmański ^a ^a <i>Faculty of Power and Aeronautical Engineering, Warsaw University of Technology, Nowowiejska 21/25, 00-665 Warsaw, Poland</i>	
	High Performance Thermochemical Energy Storage Composites using CaCl₂ in Mesoporous Silica <u>Erik Barbosa^a</u> , Akanksha Menon ^a ^a <i>Georgia Institute of Technology, Atlanta, GA 30332, USA</i>	
	Screening and Thermodynamic Characterisation of Cement-Based Composite Materials for Sorption Thermal Energy Storage	
16:45 – 18:00	<u>Alessio Mondello^a</u> , Luca Lavagna ^b , Matteo Fasano ^{a,b} , Matteo Pavese ^b , Eliodoro Chiavazzo ^{a,b} ^a <i>Department of Energy, Politecnico di Torino, Corso Duca degli Abruzzi 24, Torino, Italy.</i> ^b <i>Department of Appl. Science and Technology, Politecnico di Torino, Corso Duca degli Abruzzi 24, Torino, Italy</i>	
	Developing Biochar-based Sustainable Composites as Thermochemical Materials in Cooling Applications <u>Tina Azmoodeh^{a,b}</u> , Carlos Cuadrado Collados ^a , Camila Barreneche Guerisoli ^b , Rubén Ramos Velarde ^a ^a <i>Iberian Centre for Research in Energy Storage (CIIE), 10004 Cáceres, Extremadura, Spain</i> ^b <i>Universitat de Barcelona, Barcelona, Spain</i>	
18:00 – 19:00	Free time	
19:00 – 20:30	Union experience museum tour	
20:30 – 23:00	Dinner at Union pub	

Wednesday, 1 October 2025

	Lecture 6	Great lecture hall, 1st floor
9:00 – 9:45	Design of Sorption Thermal Battery Based on Composite Sorbent Materials: Challenges and Perspectives Dr. Andrea Frazzica <i>Institute of Advanced Technologies for Energy “Nicola Giordano”, Italy</i>	
	Short Oral presentations - Simulations and Applications	Great lecture hall, 1st floor
	Computational exploration of ZIF-8 for Thermochemical heat storage <u>Indy Boumon</u> ¹ , Veerapandian Ponnuchamy ¹ , Thomas Hooper ² , Mateo Narváez ¹ , Dimitrios Sakellariou ² , Frederik Tielens ¹ , Ionut Tranca ¹ ¹ <i>General Chemistry (ALGC) - Materials Modelling Group, Vrije Universiteit Brussel, Brussel, Belgium</i> ² <i>M2S, cMACS, KU Leuven, Leuven, Belgium</i>	
	Chemical Kinetic Modeling of Calcium Manganite based Perovskites as redox materials for Thermochemical Heat Storage <u>Michail Mouratidis</u> ^{a,b} , George Karagiannakis ^a ^a <i>Advanced Renewable Technologies & Environmental Materials in Integrated Systems, ARTEMIS, Chemical Process and Energy Resources Institute CPERI, Centre for Research and Technology Hellas CERTH, 57001 Themi, Thessaloniki, Greece</i> ^b <i>Department of Chemical Engineering, Aristotle University of Thessaloniki (AUTH), 54124 Thessaloniki, Greece</i>	
	Simulation of Sorption Thermal Energy Storage lab-scale unit <u>Mateusz Młynarczyk</u> ^a , Piotr Łapka ^a , Natalia Mikos-Nuszkiewicz ^a , Piotr Furmański ^a ^a <i>Faculty of Power and Aeronautical Engineering, Warsaw University of Technology, 21/25 Nowowiejska St., Warsaw, 00-665, Poland</i>	
9:45 – 11:00	Computational Modeling and Design of Sorption Reactors for Long-Duration Thermal Energy Storage <u>Elham Abohamzeh</u> ^a , Georg Frey ^a ^a <i>Saarland University, Chair of Automation and Energy Systems, D-66123 Saarbrücken, Germany</i>	
	Thermochemical Storage System With Heat Pump Functionality <u>Lucas Sotelo</u> ^a , Pia Wacker ^a , Inga Bürger ^a , Marc Linder ^a ^a <i>Deutsches Zentrum für Luft- und Raumfahrt, Pfaffenwaldring 38-40, 70569, Stuttgart, Germany</i>	
	K₂CO₃ Composite TCM for Low-Medium Temperature TES <u>Khouloud Abid</u> ^a , Roberta De Salvo ^a , Antonio Fotia ^a , Valeria Palomba ^a , Vincenza Brancato ^a , and Andrea Frazzica ^a ^a <i>Institute of Advanced Technologies for Energy “Nicola Giordano”, Messina- Italy</i>	
	Investigation of Salt-Mixture Systems for Thermochemical Storage Applications <u>Gayaneh Issayan</u> <i>University of Applied Sciences Upper Austria, Stelzhamerstrasse 23, 4600 Wels, Austria</i>	
	Development of Salt-in-Matrix Thermochemical Materials based on MgSO₄ and Cyclic Testing in a Lab-scale Experimental Facility	

Enrico Patrucco^a, Fabrizio Rainone^a, Paola Castellazzi^a, Andrea Rossetti^a, Antonio Licciulli^b, Sanosh Padmanabhan^b

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11:00 – 11:30	Coffee break	Foyer of the great lecture hall, 1 st floor
11:30 – 12:00	Hands on	Foyer of the great lecture hall, 1 st floor
	Lecture 7	Great lecture hall, 1 st floor
	Advancements in Adsorption Refrigeration: Fundamentals and Prototype Evolutions Over the Last Two Decades	
12:00– 12:45	Dr. Salvatore Vasta	
	Institute of Advanced Technologies for Energy “Nicola Giordano”, Italy	
12:45 – 13:00	Closing	Great lecture hall, 1 st floor
13:00 – 14:30	Lunch	Mansard, 2 nd floor