



**Final Workshop: Mission Innovation Heating and Cooling –  
Sorption Heat Pump Systems**

**Sorption Friends III**

**1<sup>st</sup> to 4<sup>th</sup> May 2023**

**Hotel Diodoro, Via Bagnoli Croci, 75, 98039 Taormina ME, Italy**

**Monday 1<sup>st</sup> May**

19:00      **Welcome reception**  
Reception with drinks and snacks.

20:00      **Informal Dinner** (self-payment)  
Tables have been reserved (for those that filled in the web form) at Ristorante La Botte

## Tuesday 2<sup>nd</sup> May

9:30-9:45 **Introduction**: Bob Critoph

9:45-11:00 **Institute presentations** (10 mins each)

Chair: Giulio Santori

- Shanghai Jiao Tong University
- University of Shanghai for Science and Technology
- CNR – ICCOM
- CNR – ITAE
- University of Warwick
- Borskov Institute of Catalysis (remote)

11:00-11:30 **Coffee break**

11:30-12:30 **Institute presentations**

Chair: Lucio Bonaccorsi

- TNO
- Fraunhofer ISE
- University of Messina
- Georgia Tech

12:30-13:30 **Lunch**

13:30-15:00 **Institute presentations**

Chair: Luigi Calabrese

- OTH Regensburg
- University of Edinburgh
- RWTH Aachen University
- Sorption Technologies
- IRCE Lyon
- ZAE Bayern

15:00-15:30 **Coffee break**

15:30-17:00 **Institute presentations**

Chair: Stan Shire

- University of Lucerne
- University Mediterranea Reggio Calabria
- Simon Fraser University (remote)
- Institute for Thermal Engineering, HEIG-VD
- SPF Institute for Solar Technology, OST
- EMPA

20:00 **Informal Dinner** (self-payment)

Tables have been reserved (for those that filled in the web form) at Osteria di Villa Zuccaro

## Wednesday 3<sup>rd</sup> May

9:15-9:30 **Opening Day 2: Technical discussions/workshops**

Bob Critoph

9:30-11:00 **Technical discussion 1: Absorption**

Chair: Srinivas Garimella

Topic summary: Liquid absorption pairs and components for heat pumps and heat storage.

11:00-11:30 **Coffee break**

11:30-12:30 **Technical discussion 2: Chemisorption**

Chair: Bob Critoph & Michel van der Pal

Topic summary: Chemical salts development challenges for heat pumps, heat transformers and heat storage.

12:30-13:30 **Lunch**

13:30-15:00 **Technical discussion 3: Adsorption materials and generators**

Chairs: Angelo Freni & Belal Dawoud

Topic summary: Physical adsorption materials development and characterisation. Adsorption generator development (e.g. plate type).

15:00-15:30 **Coffee break**

15:30-16:30 **Technical discussion 4: Kinetics and modelling**

Chair: Gerrit Földner

Topic summary: Kinetics and modelling of adsorption.

20:00 **Gala Dinner**

Gala Dinner at Hotel Diodoro

## Thursday 4<sup>th</sup> May

9:15-9:30 **Opening Day 3: Markets, applications and research direction**

Steve Metcalf

9:30-11:00 **Markets and applications**

Chair: Walter Mittelbach

Topic summary: What are the most promising markets and applications for sorption?  
Heat storage? Gas-fired heat pumps? Solar/waste heat driven cooling? Heat transformers?

11:00-11:30 **Coffee break**

11:30-12:30 **Research direction and closing panel**

Chair: Peter Schossig

Topic summary: What are the challenges that still need to be overcome for sorption systems?

12:30-13:30 **Lunch**