

GRICU & AIDIC DAET School 2022 - Process Decarbonization and Energy Transition

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome and presentation of the initiative (GRUCU, AIDIC and organizing committee)

Thursday, 13 October 2022 14:00 (10 minutes)

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 2

Type: **not specified**

Introduction to Day 1 (A. Galia, University of Palermo)

Thursday, 13 October 2022 14:10 (5 minutes)

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 3

Type: **not specified**

Hydrogen: processes and technologies (S. Bensaïd – Polytechnic of Turin)

Thursday, 13 October 2022 14:15 (55 minutes)

Presenter: BENSAID, Samir

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 4

Type: **not specified**

Ammonia: processes and technologies (M. De Joannon – CNR-STEMS)

Thursday, 13 October 2022 15:10 (1 hour)

Presenter: JOANNON, Mara DE

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 5

Type: **not specified**

Salinity gradient power technologies for energy production, conversion and storage (A. Cipollina – University of Palermo)

Thursday, 13 October 2022 16:10 (1 hour)

Presenter: CIPOLLINA, Andrea

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 6

Type: **not specified**

Hydrogen distribution (P. Ercoli – SNAM)

Thursday, 13 October 2022 17:10 (50 minutes)

Presenter: ERCOLI, Piero

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 7

Type: **not specified**

Conclusion of day 1 (A. Galia – University of Palermo)

Thursday, 13 October 2022 18:00 (10 minutes)

Session Classification: Day 1 – October 13th, 2022

Contribution ID: 8

Type: **not specified**

Introduction to Day 2 (F. Scala – University of Naples Federico II)

Friday, 14 October 2022 14:00 (5 minutes)

Session Classification: Day 2 – October 14th, 2022

Contribution ID: 9

Type: **not specified**

**From oil and gas to biofeedstocks: availability,
conversion processes, the biorefinery concept (P.
Salatino – University of Naples Federico II)**

Friday, 14 October 2022 14:05 (55 minutes)

Presenter: SALATINO, Piero

Session Classification: Day 2 – October 14th, 2022

Contribution ID: 10

Type: **not specified**

Biomass, biofuels, and biorefineries: biochemical processes (M. Majone – University of Rome La Sapienza)

Friday, 14 October 2022 15:00 (1 hour)

Presenter: MAJONE, Mauro

Session Classification: Day 2 – October 14th, 2022

Contribution ID: 11

Type: **not specified**

**Biomass, biofuels, and biorefineries:
thermochemical processes (L. Tognotti – University
of Pisa)**

Friday, 14 October 2022 16:00 (1 hour)

Presenter: TOGNOTTI, Leonardo

Session Classification: Day 2 – October 14th, 2022

Contribution ID: 12

Type: **not specified**

PROESA®: Break-through Technology for Producing Advanced Bio-Fuels and Renewable Chemicals (F. Mantovani – Versalis)

Friday, 14 October 2022 17:00 (1 hour)

Presenter: MANTOVANI, Filippo

Session Classification: Day 2 – October 14th, 2022

Contribution ID: 13

Type: **not specified**

Conclusion of Day 2 (F. Scala – University of Naples Federico II)

Friday, 14 October 2022 18:00 (10 minutes)

Session Classification: Day 2 – October 14th, 2022

Contribution ID: 14

Type: **not specified**

Introduction to Day 3 (D. Fino – Polytechnic of Turin)

Thursday, 20 October 2022 14:00 (5 minutes)

Session Classification: Day 3 – October 20th, 2022

Contribution ID: 15

Type: **not specified**

Power-to-X: Heat to Fuels (M. Antonini - Hysytech)

Thursday, 20 October 2022 14:05 (55 minutes)

Presenter: ANTONINI, Massimiliano

Session Classification: Day 3 – October 20th, 2022

Contribution ID: 16

Type: **not specified**

Solar heat/power for industrial processes (A. Giaconia - ENEA)

Thursday, 20 October 2022 15:00 (1 hour)

Presenter: GIACONIA, Alberto

Session Classification: Day 3 – October 20th, 2022

Contribution ID: 17

Type: **not specified**

Decarbonization of hard-to-abate industrial sectors: overview on economical constraints and opportunities (D. Chiaramonti - Polytechnic of Turin)

Thursday, 20 October 2022 16:00 (1 hour)

Presenter: CHIARAMONTI, David

Session Classification: Day 3 – October 20th, 2022

Contribution ID: 18

Type: **not specified**

Navigating the energy transition: technology solutions to decarbonise the petrochemical value chains (D. Winch - JM Low Carbon Solutions)

Thursday, 20 October 2022 17:00 (1 hour)

Presenter: WINCH, Dominic

Session Classification: Day 3 – October 20th, 2022

Contribution ID: 19

Type: **not specified**

Conclusion of Day 3 (D. Fino – Polytechnic of Turin)

Thursday, 20 October 2022 18:00 (10 minutes)

Session Classification: Day 3 – October 20th, 2022

Contribution ID: 20

Type: **not specified**

Introduction to day 4 (F. Bezzo – University of Padova)

Friday, 21 October 2022 14:00 (5 minutes)

Session Classification: Day 4 – October 21st, 2022

Contribution ID: 21

Type: **not specified**

Carbon capture and sequestration: technologies, opportunities and challenges (F. Bezzo - University of Padova)

Friday, 21 October 2022 14:05 (55 minutes)

Presenter: BEZZO, Fabrizio

Session Classification: Day 4 – October 21st, 2022

Contribution ID: 22

Type: **not specified**

CO2 to platform molecules - thermo/electrical routes (S. Hernandez - Polytechnic of Turin)

Friday, 21 October 2022 15:00 (1 hour)

Presenter: HERNANDEZ, Simelys

Session Classification: Day 4 – October 21st, 2022

Contribution ID: 23

Type: **not specified**

CO2 to platform molecules - biochemical routes (T. Tommasi - Polytechnic of Turin)

Friday, 21 October 2022 16:00 (1 hour)

Presenter: TOMMASI, Tonia

Session Classification: Day 4 – October 21st, 2022

Contribution ID: 24

Type: **not specified**

The role of CCUS in the decarbonization of the cement industry: technologies, challenges, perspectives (M. Romano - Polytechnic of Milan)

Friday, 21 October 2022 17:00 (1 hour)

Presenter: ROMANO, Matteo

Session Classification: Day 4 – October 21st, 2022

Contribution ID: 25

Type: **not specified**

Conclusion of Day 4 (F. Bezzo – University of Padova)

Friday, 21 October 2022 18:00 (10 minutes)

Session Classification: Day 4 – October 21st, 2022

Contribution ID: 26

Type: **not specified**

Introduction to day 5 (V. Cozzani – University of Bologna)

Thursday, 27 October 2022 14:00 (5 minutes)

Session Classification: Day 5 – October 27th, 2022

Contribution ID: 27

Type: **not specified**

Risk management and trade-off in the framework of technologies for energy transition (V.Cozzani – University of Bologna)

Thursday, 27 October 2022 14:05 (55 minutes)

Presenter: COZZANI, Valerio

Session Classification: Day 5 – October 27th, 2022

Contribution ID: 28

Type: **not specified**

The importance of life cycle assessment for the early sustainability assessment of emerging energy technologies (S. Cucurachi – University of Leiden)

Thursday, 27 October 2022 15:00 (1 hour)

Presenter: CUCURACHI, Stefano

Session Classification: Day 5 – October 27th, 2022

Contribution ID: 29

Type: **not specified**

Life Cycle Assessment of conventional and innovative waste-to-energy technologies (U. Arena – University of Campania L. Vanvitelli)

Thursday, 27 October 2022 16:00 (1 hour)

Presenter: ARENA, Umberto

Session Classification: Day 5 – October 27th, 2022

Contribution ID: 30

Type: **not specified**

Safe Hydrogen Fuel Handling and Use for Efficient Implementation - SH2IFT project (F. Ustolin - NTNU)

Thursday, 27 October 2022 17:00 (1 hour)

Presenter: USTOLIN, Federico

Session Classification: Day 5 – October 27th, 2022

Contribution ID: **31**

Type: **not specified**

Conclusion of Day 5 (V. Cozzani – University of Bologna)

Thursday, 27 October 2022 18:00 (10 minutes)

Session Classification: Day 5 – October 27th, 2022

Contribution ID: 32

Type: **not specified**

Introduction to day 6 (A. Frassoldati – Polytechnic of Milan)

Friday, 28 October 2022 14:00 (5 minutes)

Session Classification: Day 6 – October 28th, 2022

Contribution ID: 33

Type: **not specified**

Waste recovery and recycling by pyrolysis and gasification processes: state of the art, open issues and future directions (M. Pelucchi – Polytechnic of Milan)

Friday, 28 October 2022 14:05 (55 minutes)

Presenter: PELUCCHI, Matteo

Session Classification: Day 6 – October 28th, 2022

Contribution ID: 34

Type: **not specified**

The role of CCS and CCU in delivering negative emissions for a climate neutral society (M. Mazzotti – ETH Zurich)

Friday, 28 October 2022 15:00 (1 hour)

Presenter: MAZZOTTI, Marco

Session Classification: Day 6 – October 28th, 2022

Contribution ID: 35

Type: **not specified**

Store&Go Project (D. Trimis – Karlsruhe Institut of Technology)

Friday, 28 October 2022 16:00 (1 hour)

Presenter: TRIMIS, Dimosthenis

Session Classification: Day 6 – October 28th, 2022

Contribution ID: 36

Type: **not specified**

An outlook on future directions of Process Decarbonization (G. De Santi, Politecnico di Torino / past director EC JRC)

Friday, 28 October 2022 17:00 (30 minutes)

Presenter: DE SANTI, Giovanni

Session Classification: Day 6 – October 28th, 2022

Contribution ID: 37

Type: **not specified**

A holistic perspective on Energy Transition (A. Tilche, Strategic Committee - Italian Ministry of Infrastructure)

Friday, 28 October 2022 17:30 (30 minutes)

Presenter: TILCHE, Andrea

Session Classification: Day 6 – October 28th, 2022

Contribution ID: **38**

Type: **not specified**

Conclusion of the School (G. Veronesi, EFCE President)

Friday, 28 October 2022 18:00 (10 minutes)

Session Classification: Day 6 – October 28th, 2022