WORKSHOP IN THE FRAME OF THE HORIZON 2020 PROJECT HEAT-TO-FUEL

HEAT-TO-FUEL INTERFACES TO ADVANCED POWER-TO-GAS AND POWER-TO-LIQUIDS TECHNOLOGIES (E-FUELS)

Power-to-Gas and Power-to-liquid (combined as Power-to-X) represent essential future technologies in terms of CO2 emission reduction by the utilization of CO2 from various sources (flue gases, biogases or atmosphere) for the production of advanced fuels.

SUMMARY:

Heat-to-Fuel is organizing this workshop which main goal is to give a technological overview on key steps in the Power-to-X process as well as to discuss market opportunities of provided efuels. The workshop includes market and technical oriented keynotes to introduce the participants to the subject. Furthermore, differences and similarities at the technical as well as at the political level between BtL and PtL are discussed comprehensively.







AGENDA

PROGRAMME OF THE FIRST WORKSHOP DAY MONDAY, THE 8TH OF MARCH 2021

09:00 KEYNOTES

Heat-to-Fuel: Beyond state-of-the-art fuel production with highly efficient PtL integration option.

E-fuels prospects – Where are we (heading) to)?

BtL and PtL, differences and similarities at technical level

BtL and PtX into the framework of EU policies on biofuels

The Global Carbon Cap – A Legislation for *Cost Efficient CO2 Reduction*

DI Dr. Richard Zweiler, CEO, **GET GmbH**

Dipl.-Ing. Patrick Schmidt, Senior Consultant, LBST GmbH

Prof. Dr. Reinhard Rauch, Professor, KIT

Prof. Dr. David Chiaramonti, President, RECORD

Dr. Hermann Pengg, Managing Director, Audi e-gas Betreibergesellschaft m.b.H.

10:40 SESSION: HYDROGEN PRODUCTION

Large scale PEM-Electrolysis and Sector Coupling

Production of Renewable Hydrogen and Syngas via High-Temperature Electrolysis

KEROGREEN, towards CO2 neutral chemicals and fuels

Aqueous phase reforming for the production of H2 from biorefinery waste waters: technological challenges and perspectives

Ilona Dickschas, Siemens Energy (New Energy Business)

Dr. Oliver Posdziech, Head of Large Systems Development, Sunfire GmbH

Prof. Dr. Richard van de Sanden, Group Leader PSFD, DIFFER

Prof. Samir Bensaid, Professor, POLITO



12:00 CLOSING REMARKS

Wrap up and discussion of the first workshop day

Prof. Dr. Reinhard Rauch, Professor, KIT

12:20 END OF WORKSHOP DAY 1

PROGRAMME OF THE SECOND WORKSHOP DAY TUESDAY, THE 8TH OF MARCH 2021

09:00 SESSION: CARBON CAPTURE

Solid Sorbent Technology for postcombustion CO2 capture

Direct Air Capture (DAC) – Closing the carbon cycle with E-Fuels from air

Dr. Joana Tsou, Shell Global Solutions International B.V.

André Bechem, Senior Product Engineer, Climeworks

09:40 SESSION: FUEL PRODUCTION

Last flexible methanation in an advanced power-to-gas system

CO2 gasification for the production of synthetic biofuels

Milli-structured Heat Exchangers Reactors for Power to X applications

Production of biofuel's precursors from HTL of industrial residues Dr. Alfred Friedacher, Director of R&D, Christof Industries Austria GmbH

Dr. Anna Mauerhofer, Post-doc, Dr. Stefan Müller, Senior Scientist, ICEBE, Vienna University of Technology

Geneviève Geffraye, Senior Scientist, CEA

Dr. Andrea Rizzo, Technical director, RECORD



11:00 SESSION: DEMONSTRATION PROJECTS

Results of the European PtG demonstration project STORE&GO

Multimegawatt high-temperature electrolyser to generate green hydrogen for production of highquality biofuels

Linking of b-fuel and e-fuel production – Simmeringer Haide Research Hub Dr. Frank Graf, Head of Division Gas Technology, DVGW Research Center at Engler-Bunte-Institut of KIT

Julie Mougin, Head of Hydrogen Technologies Laboratory, CEA

Dr. Teresa Schubert, Senior Specialist Research & Development, Wien Energie GmbH

12:00 CLOSING REMARKS

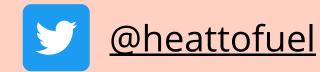
Wrap up and discussion of the second workshop day

Prof. Dr. Reinhard Rauch, Professor, KIT

12:20 END OF WORKSHOP

The attendance of the workshop is **free** of charge.

Registration: DAY 1 & DAY 2









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