



3rd Conference on CO₂

Carbon Dioxide
as Feedstock
for Chemistry
and Polymers

www.CO2-chemistry.eu

CO₂ as chemical feedstock – a challenge for sustainable chemistry

2–3 December 2014, Haus der Technik, Essen (Germany)

Gold Sponsor



Organiser



1st Day, 2 December 2014

Policy & visions + CO₂ capture & purification +
H₂ generation: prerequisite for CO₂ economy



2nd Day, 3 December 2014

CO₂ based fuels + Chemicals and building
blocks + Polymers & materials

For the 3rd year in a row, the nova-Institute will organize the conference “CO₂ as chemical feedstock – a challenge for sustainable chemistry” on 2–3 December 2014 in the “Haus der Technik” in Essen, Germany. Over the last few years, the rise of this topic has developed from several research projects and industrial applications to become more and more dynamic, especially in the fields of solar fuels (power-to-fuel, power-to-gas) – but also in CO₂-based chemicals and polymers. Several players are very active and will showcase some enhanced and also new applications using carbon dioxide as feedstock.

The conference will be the largest event on Carbon Capture and Utilization (CCU) in 2014. Our goal is to connect more than 300 participants from the leading industrial and academic players in CO₂ utilization that are expected to attend the conference and to share their recent success stories, as well as new ideas and products in implementation. We hope also you will be part of this opportunity to get in touch with this innovative and active network.

**Biggest event on
CO₂ as feedstock**

3rd Conference on CO₂

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1st Day, 2 December 2014

- Policy & visions
- CO₂ capture & purification
- H₂ generation:
prerequisite for CO₂
economy

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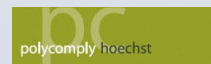
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PROGRAMME OF THE 1st DAY

09:30 Registration and welcome coffee

10:00 Conference Opening, nova-Institut GmbH Michael Carus

Opening words from the Ministry of Innovation,
Science and Research of the State of North-Rhine Westphalia (inquired)

POLICY & VISIONS



Federal Ministry of Education and Research (BMBF)

PD Dr. Lothar Mennicken

Update on the German R&D program
for CO₂ utilisation – innovations for a
green economy



Virgin Earth Challenge

David Addison

'If you want to go fast, go alone. If
you want to go far, go together' – an
updated vision for CO₂ utilisation's
role in a sustainable future



nova-Institut GmbH

Michael Carus

Industrial utilization of CO₂:
suitable strategy and political
framework for implementation



CO₂Chem Initiative

Prof. Dr. Peter Styring

tba



Tecnon OrbiChem

Roger Lee

CO₂-based alternatives to
petrochemicals and fuels

12:00 Press conference & Lunch Break

CO₂ CAPTURE & PURIFICATION



Linde Engineering

Dresden GmbH

Sven Petersen

Industrial CO₂ utilization in commercial
scale – presentation of a project
realization

Climeworks AG

Jan Wurzbacher

CO₂ supply through Direct Air Capture –
update on Climeworks activities

H₂ GENERATION: PREREQUISITE FOR CO₂ ECONOMY



sunfire GmbH

Christian von Olshausen

Power-to-Liquids: synthetic
hydrocarbons from CO₂, H₂O and
electricity

University of Cologne

Prof. Dr. Sanjay Mathur,

Thomas Fischer

SOLAROXENIX



Hydrogenics Europe N.V.

Filip Smeets

Shifting power with Grid-Scale Water
Electrolysis

18:00 Discussion with speakers from the first day

20:00 Dinner Buffet

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2nd Day, 3 December 2014

- CO₂ based fuels
- Chemicals & building blocks
- Polymers & materials

PROGRAMME OF THE 2nd DAY

09:00 Conference Opening

CO₂ BASED FUELS



NewCO2fuels

Julie Horn

Converting CO₂ into fuels and chemicals using high temperature heat



Lanza Tech

Willemijn van der Werf

tba



Technical University of Denmark

Prof. Dr. Mogens Bjerg Mogensen

Production of Green Fuels using Solid Oxide Electrolysis Cells: Status and Perspectives



Phytonix Corporation

Bruce Dannenberg

Direct Photobiological Conversion of carbon dioxide feedstock into renewable chemicals and fuels



bse Engineering Leipzig GmbH

Christian Schweitzer

Integrated concept to utilize biochemical generated CO₂ for thermochemical fuel production. Technical feasibility – legal challenges – commercial viability

12:30 Lunch Break

CHEMICALS & BUILDING BLOCKS



Politecnico di Torino

Prof. Dr. Guido Saracco

High efficiency photo-electron-chemical reactors for solar fuels production



Avantium

Dr. Klaas Jan Schouten

Biorefinery chemicals using photo-electrochemical CO₂ reduction in the Eco2CO₂ project



Liquid Light Corporation

Dave Law

Carbon Dioxide as a Feedstock for Renewable and Bio-based Polyester

POLYMERS & MATERIALS



Bayer MaterialScience AG

Dr. Christoph Gürtler

tba



Novomer Inc.

Peter Shepard

Commercial applications of CO₂ based polyols



Econic Technologies

Dr. Rulande Henderson

Econic catalyst systems for polycarbonates and polyols from CO₂

16:00 Discussion with speakers from the second day

Networking reception with snack

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Venue

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www.hdt-essen.de

Exhibition

Take the extraordinary opportunity to present your company and your innovative products at the conference with an exhibition booth!

Prices for an 6 sqm booth are starting at 1100 € (net). We would be glad to provide you with a nonbinding offer. Detailed information can be found at: www.co2-chemistry.eu/exhibitorinfo or please contact Mr. Dominik Vogt.



Call for posters

You are welcome to present your scientific poster to inform the participants about your projects and results. If you would like to present your work in the field of carbon dioxide as a feedstock for chemistry and polymers please send an abstract to Mr. Achim Raschka.

Entrance Fee

1 st Day of Conference 2 December 2014	2 nd Day of Conference 3 December 2014
470 €	420 €
790 €	

(Conference incl. Catering, 19 % VAT exclusiv)