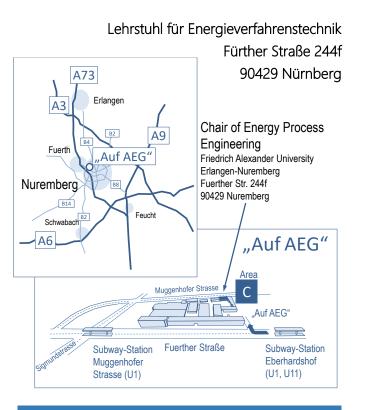
Venue and Directions



Hotels and Accommodation

We kindly recommend these hotels offering a good connection to the conference location "Auf AEG"

Best Western Hotel Nürnberg City West

Regerstr. 6, 90429 Nürnberg, Tel. +49 911 21750 www.nuernberg-citywest.bestwestern.de (in walking distance)

Derag Living Hotel Nürnberg

Obere Kanalstr. 11, 90429 Nürnberg, Tel. +49 911 92950 https://www.deraghotels.de/hotel-nuernberg/ (three subway stations to conference location at AEG)

Hotel Prinzregent

Prinzregentenufer 11, 90489 Nürnberg, Tel. +49 911 588188 <u>http://www.prinzregent.net/</u> (close to main station, 10 min with subway to AEG)

Registration

Please register until **Friday, May 15th 2020** by Fax (+49 911 5302 9030) or via

| | <u>www.evt.tf.fau.de</u> | | | |
|------------------------------|--------------------------|--|--|--|
| Name _ | | | | |
| Title _ | | | | |
| Company/ – Organization – | | | | |
| Address _ | | | | |
| ZIP, Town | | | | |
| Country _ | | | | |
| Fax _ | | | | |
| Tel _ | | | | |
| Email | | | | |

I will participate in

- □ Methanation Workshop on Thursday, June 4th
- □ Methanation Workshop on Friday, June 5th
- Dinner on Thursday, June 4th
- □ Guided tour before Dinner, June 4th
- I plan to give a presentation during the "Open Session"

Registration fees

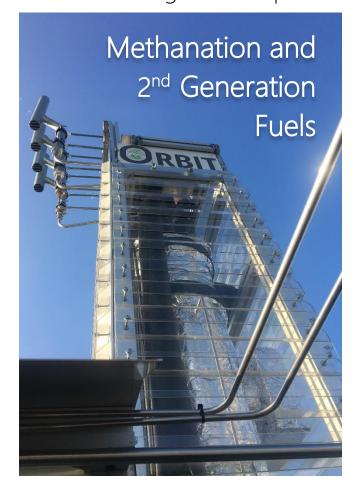
| Early bird registration (deadline February 29 th 2020) | 230€ |
|--|------|
| Regular (after March 1 st 2020) | 330€ |
| Students, B. Sc. and M. Sc. level only | 60 € |

I am □ Student □ Invited Speaker

The registration fee includes coffee/lunch breaks, dinner, and sightseeing tour. Presentations will be made available online after the workshop.



Invitation to the 5th Nuremberg Workshop



Chair of Energy Process Engineering Friedrich-Alexander University Erlangen-Nürnberg Nuremberg, 4th – 5th June 2020

About this Workshop

Dear Colleagues,

the severe need for innovation within the energy sector becomes more obvious day by day. More precisely Friday by Friday. A sustainable and most importantly fast energy transition is one of the key demands of the world's next generation. And chemical storage is #ScienceForFuture. It is the key to overcome the most severe challenges to implement more volatile renewable energy sources. It is the basis to bring renewables into the transport sector.

The 5th Nuremberg workshop on "Methanation and Second Generation Fuels" addresses storage and transportation of renewable energies as "Power-to-X", "biofuels" or "intermediates" – or as we call it since 2012 - Second Generation Fuels. Second Generation Fuels became important corner stones of the worldwide energy transition research.

The technical readiness level of established pathways such as catalytic methanation or methanol synthesis proceeds and rises questions for reliability, cost reductions and sustainable business concepts in particular for competitive small-scale concepts. New ideas like electro catalysis may define new and not only scientifically exciting trends.

Again, we are glad to announce the 5th workshop of this series and to welcome the renowned key researchers, companies and research groups from all over Europe and beyond. We look forward to discussing their presentations and their latest results, products and developments. Again, we appreciate your interest and kindly encourage you to present your latest news in an "Open Session".

We are looking forward to meeting you at the Energy Campus in Nuremberg!



Prof. Dr.-Ing. Jürgen Karl Chair of Energy Process Engineering Friedrich-Alexander University Erlangen-Nürnberg

Thursday, June 4th, 2020

1. Session: Second Generation Fuels -#ScienceForFuture

| 9:30 | Registration | |
|-------|--|---|
| 10:00 | Welcome address | J. Karl, FAU Erlangen- Nürnberg |
| 10:15 | (next) 100 years of Fischer- Tropsch synthesis | R. Rauch, Karlsruher Institut für Technologie (KIT) |
| 11:00 | CO ₂ for a clean performance: Rheticus project | G. Schmid, SIEMENS |
| 11:45 | Power-to-X strategies | R. Bank, MAN Energy Solutions |

Lunch break

2. Session: Hydrogen and Carbon Sources

| | , , | | |
|--------------|--|---|--|
| 14:00 | Direct Air Capture (DAC) - Providing CO ₂ for Power-to-X applications | A. Bechem, Climeworks AG | |
| 14:30 | "Windgas" | N. Zösch, Stadtwerke Haßfurt | |
| Coffee break | | | |
| 15:30 | Sewage gas processing in Spain | J. Guilera, Catalonia Institute for Energy Research | |
| 16:00 | Closed cycles in Power-to-X applications | K. Schirmer, EXYTRON GmbH | |
| 16:30 | Biogenic syngas | R. Ljunggren, CORTUS Energy | |

18:00 Guided tour

Germanisches Nationalmuseum (Kartäusergasse 1, Nürnberg) Highlights of Renaissance, Baroque, Enlightenment

> 19:00 Conference Dinner Goldenes Posthorn (Glöckleinsgasse 2, Nürnberg)

Friday, June 5th, 2020

3. Session: Innovative Reactor Concepts

| 9:00 | Store&Go – The demonstration site at Falkenhagen | T. Kolb, Karlsruher Institut für Technologie (KIT) | |
|----------------------------------|--|---|--|
| 09:30 | Dynamic methanation of steelgases with a heat pipe cooled reactor concept | A. Hauser, FAU Erlangen- Nürnberg | |
| Coffee brea | lk | | |
| 10:30 | Innovative concept for methanol synthesis using unconventional gases as feedstock | S. Haag, Air Liquide F&E | |
| 11:00 | Compact Reactors for Methanation – Status and Perspectives | P. Pfeifer, Karlsruher Institut für Technologie (KIT) | |
| Open Session | | | |
| 11:30 | Latest News from the audience | all | |
| Lunch brea | k | | |
| 4. Session: Biological Synthesis | | | |
| 13:30 | Performance of a biological reactor for upgrading Bio- Syngas | R. Albu Cimpoia, National Research Council Canada | |
| 14:00 | New strategy for large scale hydrogen production using purple bacteria | C. Autenrieth, Universität Stuttgart | |
| Coffee brea | k | | |
| 15:00 | The ORBIT-Project: Biological methanation in a trickle-bed reactor | M. Thema, OTH Regensburg | |
| 15:30 | Markets for Green Gases | J. Klückers, VIESSMANN | |
| 16:00 | Summary and Conclusions | J. Karl, FAU Erlangen- | |

Nürnberg