

10th International Freiberg Conference

on IGCC & XtL Technologies

Closing the Carbon Cycle

15–20 May 2022
Shanghai, China



Event description

The 10th International Freiberg Conference on IGCC & XtL Technologies will take place from 15-20 May 2022 in Shanghai. Additionally, the Technical Tours will bring the participants to gasification plants in Inner Mongolia. This event, jointly organized by the **Institute of Energy Process Engineering and Chemical Engineering** (IEC) at the TU Bergakademie Freiberg (Freiberg, Germany), the **Institute of Clean Coal Technology** (ICCT) at the East China University of Science and Technology (Shanghai, China) and the **Synfuels China Technology Co., Ltd** (Beijing, China), will focus on **issues associated with closing the carbon cycle and the role of coal in a circular economy.**

The event provides a high-level discussion forum to facilitate the exchange of information and expertise between **industry, scientific and political stakeholders along carbon value chains from extraction, processing/refining to conversion, utilization and chemical recycling.** Participants are expected to come from diverse fields and industrial branches ranging from researchers and specialists engaged in **fundamental and applied R&D** to industry experts from **energy, natural resource, chemical and recycling sectors** as well as **equipment and technology providers/manufacturers.**

The conference provides a platform where international participants will have the opportunity to engage in in-depth exchanges about **alternative and innovative developments associated with carbon resources as well as challenges and opportunities for carbon intensive and dependent industries.** Studies and new developments by researchers and technology developers as well as current or planned projects and operational experiences by plant operators related to closing the carbon cycle shall be presented. Topics for presentations include:

- Feedstock extension for chemical utilization (lignite, high ash high melting coals, sewage sludge, plastic waste, ocean waste, biowaste, agricultural and animal waste ...)
- Feedstock supply, homogenization and preparation (drying, feeding, deashing, ...)
- Waste treatment (collection, sorting, crushing, agglomeration, baling, ...)
- Low temperature conversion processes (e.g. extraction, torrefaction and pyrolysis)
- Upgrading of low-temperature conversion products (e.g. tar reforming, tar upgrading, coke production)
- Feedstock conversion (e.g. characterization, reaction kinetics, analytics of heterogeneous feedstock, ...)
- Chemical conversion processes and technologies (solvolysis, pyrolysis, gasification/co-gasification, underground coal gasification, direct liquefaction, ...)
- Synthesis gas treatment and synthesis technologies (CO₂-based syntheses, direct syngas conversion, ...)
- Carbon dioxide capture, storage and utilization
- Combined cycle and gas turbine developments for IGCC and polygeneration
- Integration of coal and renewables for chemical storage
- Green hydrogen generation, storage and supply
- High value carbon products (graphene, carbon fiber, purest carbon, ...)
- Numerical modeling of conversion processes
- Concept evaluations and flow sheet simulation
- Concepts, industrial projects, industrial application
- National and international industry/science networks and initiatives for a low CO₂ emission and/or circular carbon economy
- Perspectives from industry (e.g. coal mining organizations, waste management companies, chemical industries, hydrogen economy, technology developers, ...)

- Trends (zero-waste cities, circular carbon economy, ...) and national/global boundary conditions (social, economic, regulatory, political) for sustainable carbon conversion to chemicals, transportation fuels and electricity
- ...

We look forward to welcoming you for 5 days of intensive discussions with fellow experts and specialists at the conference in Shanghai in May 2022.

Registration Opportunities

15-20 May 2022 – Registration for PARTICIPANT (Presenter, Non-Presenter, NK2-Member) of the 10th International Freiberg Conference

Entry authorization to all scientific conference sessions including:

- A set of conference documents,
- Download option for conference presentations (after the conference).

Social conference program:

- Participation in the Welcome Reception (15 May 2022),
- Participation in the Conference Dinner (16 May 2022),
- Participation in the Krüger Poster Reception (17 May 2022),
- Food and beverages during lunch and coffee breaks (16-18 May 2022).

15-18 May 2022 – Registration for ACCOMPANYING Person of the 10th International Freiberg Conference

Social conference program:

- Participation in the Welcome Reception (15 May 2022),
- Participation in the Conference Dinner (16 May 2022),
- Participation in Special Social Events for Accompanying Persons (16-18 May 2022).

15 May 2022 – Registration for Technical Tour – ECUST

Technical Tour program including:

- Bus Transfer from Conference Hotel (JW Marriott Tomorrow Square) to East China University of Science and Technology (ECUST) on 15 May 2022 at 13:00 am
- Technical Tour to Labs and Pilot-Scale Gasification Facilities at ECUST – the Developer of the OMB Gasifier
- Bus Transfer from East China University of Science and Technology (ECUST) to Conference Hotel (JW Marriott Tomorrow Square) on 15 May 2022 at ca. 16:00 am

19-20 May 2022 – Registration for Technical Tour of the 10th International Freiberg Conference

Technical Tour program including:

- Bus Transfer from Conference Hotel (JW Marriott Tomorrow Square) to Shanghai Hongqiao Airport (SHA), departure from Hotel on 19 May 2022 at 6:00 am
- Charter Flight from Shanghai Hongqiao Airport (SHA) to Inner Mongolia on 19 May 2022
- All Bus Transfers in Inner Mongolia
- Technical Tour of Two Gasification Plants
- One Night Hotel Accommodation in Inner Mongolia
- Lunch and Dinner on 19 May 2022, and Breakfast and Lunch on 20 May 2022
- Charter Flight from Inner Mongolia to Shanghai Pudong Airport (PVG) on 20 May 2022, arrival at Pudong Airport at approximately 8:30 pm