

IEA FBC and IEA Bioenergy Task 33 Gasification of Biomass and Waste

Joint workshop in Skive, Denmark:

Fluidized Bed Conversion of Biomass and Waste

Tuesday 24 October 2017

Fluidized bed technology is well-suited for thermal processing of solid fuels such as biomass and waste. Combustion and gasification, in particular, are demonstrated technologies and today there are many commercial installations processing biomass-based feedstock in fluidized bed reactors. The Workshop on Fluidized Bed Conversion of Biomass and Waste is jointly sponsored by IEA Bioenergy Task 33 (Gasification of Biomass and Waste) and IEA-FBC (Fluidized Bed Conversion) and includes over 15 presentations from experts on R&D, implementation, challenges and successes of fluidized bed processing. The workshop is open to the public and all interested parties are encouraged to attend. The workshop program, registration, travel and hotel information are available at the

[IEA Bioenergy Task 33 website](#).

08:00 Registration

08:30 Welcome and short introductions

- Morten Tony Hansen, Ea Energy Analyses, Denmark on behalf of DEA
- Tage Meltofte, Skive District Heating, Denmark
- Fabrizio Scala, University of Naples Federico II, Italy on behalf of IEA FBC
- Kevin Whitty, Utah University, US on behalf of Task 33

08:45 R&D

- Bo Leckner, Chalmers University of Technology, Sweden
Heat and mass transfer to fuel particles in fluidized bed combustors and gasifiers
- Robin Hughes, CanmetENERGY, Natural Resources Canada
Co-firing of Torrefied Biomass and Coal in Oxy-FBC with Ilmenite Bed Material

10:15 Questions, debate and coffee break

10:45 Application of recent R&D - implementations

- Anton Larsson, Gothenburg Energy, Sweden
GoBiGas - 10 000 hours of gasification
- Kyoungil Park, KEPCO, South Korea
Biomass Utilization Status and Example in Fluidized Bed Boiler in Korea
- Tomoyoshi Kumagai, IHI Corporation, Japan
Fluidized Bed Gasification and Combustion of Biomass
- Juhani Isaksson, Valmet, Finland
State of art CFB gasifiers and boilers for biomass and wastes (TBC)

12:15 Questions and debate

12:30 Lunch

13:30 R&D

- Matthias Kuba, bioenergy 2020+, Austria
Ash and bed material research in fluidized bed gasification of biomass from lab- to industrial-scale
- Emil Vainio, Åbo Akademi University, Finland
Low-temperature corrosion in fluidised bed combustion of biomass
- Peter Clough, Cranfield University, UK
Hydrogen production from biomass feedstocks utilising a spout fluidised bed reactor
- Alberto Gomez Barea, University of Seville, Spain
Opportunities of Hybridization of CSP Plants by Biomass Gasification
- Pavlieta Knutsson, Chalmers University of Technology, Sweden
Bed material-alkali interactions during fuel conversion in fluidized bed

15:15 Questions and debate and coffee break

15:45 Application of recent R&D - implementations

- Aris Nikolopoulos, CERTH, Greece
Assessing CFB Combustors flexibility with respect to load changes and fuel type
- Junfu Lyu, Tsinghua University, China
Research & Development and Its Application of Circulating Fluidized Bed Boiler Technology in China
- Florian Benedikt, TU Wien, Austria
Results from the 100 kW dual fluidized bed gasifier at TU Wien
- Mathieu Insa, EDF, France
Biggest BFB for biomass combustion in France - Lessons learned

17:15 Wrap up by Kevin Whitty, Utah University

19:00 Workshop Dinner

Questions regarding the workshop can be directed to Morten Tony Hansen at Ea Energy Analyses (mth@eaea.dk).