



Summary Minutes

Task 34 Pyrolysis meeting - Karlsruhe, Germany April 16-18, 2013



*Doug Elliott,
Task 34
Leader gives
an update on
the task
meeting held
at the
Karlsruhe
Institute of
Technology
(KIT).*

Task 34 members convened in Karlsruhe, Germany, on April 16-18, 2013. At the meeting the agenda included Country Reports and presentations from observers from Belgium as well as discussion of advances in Norms and Standards. The work plan for the 2013-2015 triennium was reviewed.

Agenda of the TASK 34 Meeting

Introductions:

Participating countries were represented by their team leads (Douglas Elliott, US; Dietrich Meier, Germany; and Bert van der Beld, Netherlands) except the Swedish National Team Leader (NTL) had not been designated yet. Also in attendance were observers Anja Oasmaa from Finland

and Tony Bridgwater from the UK in the expectation that these two nations will be joining the Task. Other observer/participants were Nicolaus Dahmen and Nikolaos Boukis – KIT, Germany, Wolter Prins and Diego López, Ghent University, Belgium.

Country Reports:

Presented by representatives from Germany, the Netherlands, and the US with input also from Finland and the UK. Nicolaus Dahmen made a presentation on the activities at KIT. Wolter Prins made a presentation on biomass pyrolysis research at the University of Ghent. Diego Lopez made a presentation on the algae hydrothermal liquefaction.

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During the meeting, IEA Bioenergy Task 34 members had a tour of KIT's bioenergy facilities.

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The KIT bioliq® pilot plant.

Review of the 2013-2015 Triennium Plan:

Activities proposed for the new triennium include:

- Review of Bio-oil Applications;
- Bio-oil Standards Development;
- Round Robin for Analytical Method Validation;
- Collaborative activities with other IEA Bioenergy Tasks, including TEA development, input to LCA, input to biofuels demonstration database, and lignin pyrolysis biorefinery development.

Bio-oil Applications:

Discussion followed on the Bio-oil applications topic and the structure found on the website. Assignments for preparation of input to the website were agreed among the participants on the topics of interest.

Norms and Standards:

- *CEN*—This standardization process is moving forward with the Working Group meeting expected in May.

- *REACH*—SIEF organization is proceeding with the industrial participants. There remains keen interest in obtaining the formal reports from the BioTox study as a basis for defining properties of bio-oil.

Round Robin:

The details for a round robin were discussed. The decision on the subject was postponed to the next task meeting wherein analytical methods for sulfur and chlorine will be reviewed.

IEA Bioenergy Inter-Task Collaboration

- *Task 32 Combustion*—Participants from the Netherlands could work together on a technical comparison of combustion of bio-oil relative to solid biomass combustion. VTT in Finland is also interested in cooperating in such a comparison.
- *Task 33 Gasification*—KIT in Germany is involved in both ends of this comparison, both bio-oil gasification and solid biomass gasification, and should be able to provide a useful comparison.
- *Task 38 GHG*—Task 38 would be very willing to perform LCA on good technical process data provided by Task 34. US members will facilitate the needed data transfer.
- *Task 39 Liquid Biofuels*—Task 39 has a database for demonstration plants for production of liquid fuels from biomass. It has limited input on pyrolysis. An IEA Bioenergy concerted effort will be solicited.
- *Task 42 Biorefineries*—Both Germany and the Netherlands will follow up as

they are interested to interact as a part of this European collaborative project.

Topics for Group Assignment:

- *Website Review*—Data related to utilization of the website were reviewed that suggested a high and broad level of interest in the task website. During group discussion, it was identified that a number of improvements and updates were needed. Input from each participant was solicited.
- *Newsletter*—Writing assignments were made for the next issue of the newsletter due out in June 2013.

The participants also toured the KIT bio-oil production and gasification facility (bioliq®).

Next meeting:

It was decided that it will be held the week of September 3-6, 2013, in Chicago, USA in conjunction with the tcbiomass 2013 conference on the science of thermochemical conversion of biomass. There is the potential to visit UOP as well.

Subsequent meeting sites were also identified, including Birmingham, UK in May 2014 in conjunction with the Analytical and Applied Pyrolysis conference; in Finland in October 2014 in order to visit the Fortum integrated bio-oil production facility and in 2015 to visit the Hengelo bio-oil production plant.

Doug Elliott
Task 34 Leader