

Recent Innovations in Small Scale Combustion Devices

Chairpersons:

Jaap Koppejan, TNO, Netherlands

PD Dr. Thomas Nussbaumer, Verenum, Switzerland

Organised by



ThermalNet
PyNe/GasNet/CombNet

Workshop on small scale combustion devices

- Drivers:
 - High competition for even more reliable, convenient, clean, efficient and cost effective equipment
 - Lower emission limits
 - Great market expansion
- Contents today:
 - innovative boiler designs,
 - small scale ESP systems and
 - better control concepts



Agenda

- 9:20 - 9:30 Introduction
Jaap Koppejan, IEA Bioenergy Task 32
- 9:30 – 10:10 Austrian pellet boiler technologies - state-of-the-art, ecological evaluation and future developments"
Gerold Thek, Bios Bioenergiesysteme GmbH, Austria
- 10:10 – 10:40 Break
- 10:40 – 11:10 Assessment of factors affecting hazardous emissions from residential wood-burning appliances; Fernando Preto; CANMET Energy Technology Centre – Ottawa, Canada
- 11:10 - 11:40 A systematic process identification as a tool for combustion control design, Kai Pietila, VTT, Finland
- 11:40 – 12:10 A novel electrostatic precipitator (ESP) for residential combustion
Morten Berndtsen, the National Institute of Technology, Environment and Safety, Oslo, Norway
- 12:10 – 12:20 Closing
PD Dr. Thomas Nussbaumer, Verenum, Switzerland

IEA Bioenergy Task 32

- Members

Australia

Austria

Belgium

Canada

Denmark

European Commission

Netherlands

Norway

Sweden

Switzerland

United Kingdom

Germany



- Aim

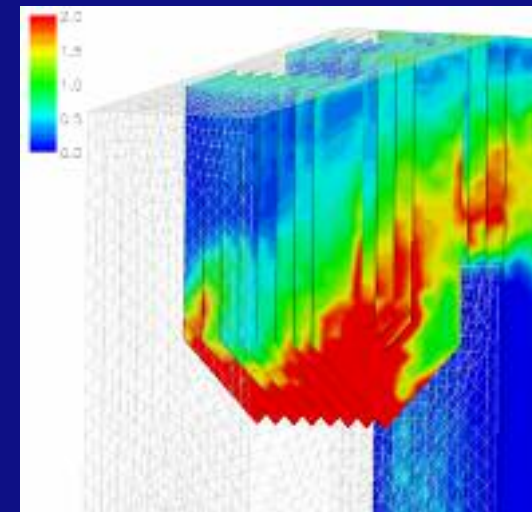
Generating and sharing key technical and non-technical information on biomass combustion

- Activities

Task meetings

Workshops

Specific studies



Current activities of IEA Bioenergy Task 32

- Global inventory of biomass cofiring
- SCR catalyst deactivation when cofiring biomass
- Aerosols from biomass combustion
- Handbook of biomass combustion & cofiring
- Striated flows in PC furnaces
- Annual efficiency determination of DH plants for simplified fuel accounting
- Public perception of biomass cofiring
- Ash related issues (deposition, corrosion)
- New biomass combustion based CHP concepts
- Innovations in small scale biomass combustion
- Development of methodology for Cumulative Energy Demand of biomass combustion systems

- More information: www.ieabcc.nl

EC-ThermalNet

- European Network of approx 50 experts on thermal conversion of biomass
- Aim: Sharing expert information on thermal conversion of biomass
- 2 meetings per year
- Workshops
- Website
- Newsletters
- www.thermalnet.co.uk

