Valladolid

Framework Programme

Universidad

European Summer School on
BIOMASS RESOURCES,
EVALUATION, PRETREATMENT
AND CHARACTERIZATION

25 – 29 August 2008, Soria, Spain

Place
Escuela Universitaria de Ingenierías Agrarias de Soria. Campus de Los Pajaritos, 42004 Soria, SPAIN.
Soria is located inside a triangle formed by the cities of Madrid, Zaragoza and Valladolid, in the North East of Spain. Region of Castilla y León. It is at about 230km from Madrid.

Participation fee
200,- € (see accounts for payment)¹
This includes transport in shuttle service between Soria and CEDER (on Friday August 29th), meals (5) during the course, and a paper script and a CD of lectures.
Grants are available for a limited number of students of the University of Valladolid.

Registration
Send details to local organization: name, e-mail and address
Deadline for registration and payment: 18 July 2008
The number of participants is limited to 40.

Local Organisation
Luis S. Esteban (CEDER-CIEMAT, UVa) luis.esteban@ciemat.es
CEDER-CIEMAT +34975281013 (ext 315)

Academic Credits
3 (free election) in Escuela U. Ingenierías Agrarias de Soria.

Accommodation
Residencia Juvenil “Juan Antonio Gaya Nuño”
Paseo de San Francisco 1, 42003 Soria, ESPAÑA
Reservations: Tel: +34975221456
Price of 8.5 €/night, including breakfast for less than 30 years old.
11.60 € for older participants.
Participants who wish to stay in hotels should contact the local organisation or visit the web site http://www.dipsoria.org/8080/ (in Spanish)

Access
-If you arrive at Madrid Airport (Barajas) you can go to Soria:
By train: There are train connections from the railway station Madrid-Chamartín. http://horarios.renfe.es/hir/ingles.html
By coach: There are frequent coaches connecting Madrid with Soria. Buy tickets at http://www.movelia.es/
-If you arrive at Zaragoza Airport you can travel to Soria:
by Coach: There are frequent coaches from Zaragoza to Soria.
Continental Auto. Address of departure: Estación de Autobuses Delicias Tel Info +34 902490690

¹The payment has to be made by bank transfer: Spanish attendants by transfer to the account Num. 0049-5450-07 2416086020, Foreign attendants by transfer to the account Num. 0049 5450 07 2416085937, Swift: BSCHESMM. All attendants have to indicate the words “Centro 401 – precurso 327 00”, the course title and attendant name in the transfer.

IMPORTANT INFORMATION: the fee payment involves the attendant conformity with the course conditions. The last day for the reclamation of the fee is the 22nd of August 2008.

An European project, supported under the European Commission’s 6th Framework Programme

fuels from biomass

An European project, supported under the European Commission’s 6th Framework Programme
The CHRISGAS Project

Clean Hydrogen-rich Synthesis Gas

The transport sector represents an increasing share of the total fossil fuel usage in the world. In order to fulfill the obligations of the Kyoto Protocol, the world must reduce the transport sector’s dependence on oil. One important way of achieving this is to increase the use of vehicle fuels produced from renewables. The aim of the CHRISGAS project is to demonstrate, within a five-year period, the production of a clean hydrogen-rich synthesis gas from biomass. This will be based on steam/oxygen-blown biomass gasification, followed by hot gas cleaning to remove particulates, and steam reforming of tar and light hydrocarbons to further enhance the hydrogen yield. This gas can then be upgraded to commercial quality hydrogen or to synthesis gas for further upgrading to liquid fuels such as DME (di-methyl ether) and methanol or Fischer-Tropsch diesel.

Further information: www.chrisgas.com

The Summer School

The European Summer School on Biomass Resources, Evaluation, Pretreatment and Characterization is the third summer school within the CHRISGAS project. The objective is to disseminate knowledge generated within CHRISGAS, to put it into a wider framework, and to present it to the European academic audience.

The summer school will mainly deal with relevant issues for the implementation of biomass and, in particular, the biomass gasification technology developed in CHRISGAS. The issues concern to biomass resources assessment, characterization of biomass, biomass logistics and raw materials preparation for gasification technology.

The summer school addresses students after their second year of studies, master thesis and PhD students, post-docs, researchers, and other interested persons in the field of renewable energies, biomass resources, biofuel preparation processes, and analytical techniques for biomass characterization.

Programme

**Monday, 25 August 2008, 09:00 – 18:30**

- General Introduction

**Tuesday, 26 August 2008, 09:00 – 18:30**

- Biomass Resources Assessment
- Methodologies in Chrisgas and the EU Case Studies:
  - Mediterranean Countries
  - South America

**Biomass Resources in Europe**

**Bioenergy Research in the EU**

Wednesday, 27 August 2008, 09:00 – 18:30

- Biofuels Supply Logistics And Pretreatment
  - Biomass harvesting
  - Drying
  - Biomass logistics and markets
  - Pelletizing
  - Comminution

Thursday, 28 August 2008, 09:00 – 18:00

- Biomass and Biofuels Characterization
  - Biomass as fuel
  - Trace elements
  - Physical analyses and standards
  - Analysis of surfaces
  - Chemical analyses and standards
  - Analysis of porous solids

Friday, 29 August 2008, 08:15 – 13:30

- Technical visit to CEDER installations:
  - Comminution plants
  - Laboratories
  - Pelletizing plant
  - Combustion and gasification facilities

Speakers from

Universities: Aachen (D), Bologna (I), Delft (NL), Växjö (SE), UPM (E), UVA (E), Imperial College (UK)

Research Centres: CIEMAT (E), Jülich (D),

Energy Agencies: European Energy Agency EEA (EU-DK)

Language: English

Scientific coordination: Juan E. Carrasco (CIEMAT) juan.carrasco@ciemat.es
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