First Announcement &
Call for Papers and
Posters

COMBURA'12
COMBUSTION RESEARCH AND APPLICATION

Kasteel Vaeshartelt
Maastricht
The Netherlands

OCTOBER 3 & 4
The COMBURA symposium is the major annual event in the Netherlands for exchange of information on combustion research and its practical applications. It is a joint initiative of the Technology Foundation STW (Platform Clean and Efficient Combustion), the Nederlandse Vlam Vereniging NVV (Dutch section of the International Flame Research Foundation IFRF) and the Dutch section of the Combustion Institute. COMBURA 2012 is sponsored by KIVI NIRIA, section Energy and Heat Technology.

This year the COMBURA symposium will be organized for the 11th time. Participants are expected from universities, research institutes, and industrial companies in the Netherlands and the surrounding countries. At this two-day symposium the latest developments and innovations in advanced combustion research with a clear focus on the potential for application in industry will be presented. In addition, the symposium offers unique chances to expand and maintain your personal network.

COMBURA 2012 will take place at Wednesday 3 October and Thursday 4 October 2012. The venue for this event will be Vaeshartelt Castle, situated just north of Maastricht. The first day of the symposium is dedicated to the STW Perspectief Program on Clean Combustion Concepts (CCC). The CCC program aims to support industry in the development and application of Clean Combustion Concepts. The program is a cooperation of the universities of Eindhoven, Twente, Delft, and Groningen. Furthermore, 14 industrial partners and knowledge institutes are involved in the program. The results from the 8 involved projects on promising future combustion concepts will be highlighted and discussed during the 1st day of the COMBURA symposium. In addition to the researchers, many involved companies will also present their contributions within the CCC program.

The second keynote speaker is Prof. Luc Vervisch, professor at COMplexe de Recherche Interprofessionnel en Aérothermochimie (CORIA) in Rouen, France. He works in the research group “Numerical simulation and modeling of turbulent combustion”. He will close the symposium with a lecture entitled “Combustion, flames and burner design: Challenges and computing tools”. Professor Luc Vervisch activities at INSA & CORIA are in numerical simulation of flames and combustion modeling. The main objective the development of new combustion technologies for energy production and transportation that meet the requirements of modern societies. Fuel efficiency and environmental issues are the major topics addressed.

On the second day, next to the two keynotes, 20 minutes talks will be given in parallel sessions by experts in the field of combustion research from universities, research institutes and companies from the Netherlands and surrounding countries.

This first call is an invitation for those who want to present their work on combustion technology at COMBURA 2012. This year the central theme concerns gas turbine technology, with a specific focus on fuel flexibility.

At the symposium the NVV Combustion Award for the best Master Thesis in the area of combustion technology will be presented. The winning young expert will give a lecture about his combustion research project.

In the poster session “Work in Progress” new research results will be presented. The best three posters will be rewarded with the Combustion Institute Poster Prize.
Day 1
Wednesday 3 October 2012

10.30 – 11.15  Registration and coffee
11.15 – 11.30  Opening and welcome by Theo van der Meer

Projects in the Clean Combustion Concepts program:

**flexFLOX**
Flameless combustion conditions and efficiency improvement of single- and multi-burner-FLOX furnaces in relation to changes in fuel and oxidizer composition
Project leader: Dirk Roekaerts (Delft University of Technology)
Co-applicants: Wiebren de Jong, Mark Tummers (Delft University of Technology)
Researchers: Luis Arteaga Mendez, Gerasimos Sarras, (Delft University of Technology)

**MILDNOX**
NO formation and fuel flexibility in dilute combustion
Project leader: Howard Levinsky (University of Groningen)
Co-applicants: Tatja Mokhov (University of Groningen), Philip de Goey, Jeroen van Oijen (Eindhoven University of Technology)
Researchers: Alexey Sepman (University of Groningen), Ebrahim Abtahizadeh Eindhoven University of Technology)

**HiTAC**
Heavy Fuel-oil combustion in a HiTAC boiler
Project leader: Theo van der Meer (University of Twente)
Co-applicants: Jim Kok (University of Twente), Dirk Roekaerts, Mark Tummers (Delft University of Technology)
Researchers: Shanglong Zhu (University of Twente), Hugo Rodrigues (Delft University of Technology)

**MoST**
Multi-scale modification of swirling combustion for optimized gas turbines
Project leader: Rob Bastiaans (Eindhoven University of Technology)
Co-applicants: Bernard Geurts, Theo van der Meer (University of Twente)
Researchers: Thiago Cardoso de Souza (Eindhoven University of Technology), Anton Verbeek (University of Twente)

**ALTAS**
Advanced low NOx flexible fuel gas turbine combustion, aero and stationary
Project leader: Rob Bastiaans (Eindhoven University of Technology)
Co-applicants: Jeroen van Oijen, Philip de Goey (Eindhoven University of Technology)
Researchers: Andrea Donini, Sudipto Mukhopadyay (Eindhoven University of Technology)

**ULRICO**
Ultra Rich Combustion of Hydrocarbons and Soot Formation
Project leader: Jim Kok (University of Twente)
Co-applicant: Dirk Roekaerts (Delft University of Technology)
Researchers: Marc Woolderink (University of Twente), Michael Stoellinger (Delft University of Technology)

**BIOxyFuel**
Torrefied biomass combustion under oxy-fuel conditions in coal fired power plants
Project leader: Gerrit Brem (University of Twente)
Co-applicants: Theo van der Meer, Bernard Geurts (University of Twente), Philip de Goey, Jeroen van Oijen, Hans Kuersten, Cees van der Geld (Eindhoven University of Technology)
Researchers: Eyerusalem Gucho (University of Twente), Yousef Haseli, Emanuele Russo (Eindhoven University of Technology)

**XCIDE**
Crossing the combustion modes in Diesel engines (Somers, De Goey, Dam)
Project leader: Bart Somers (Eindhoven University of Technology)
Co-applicants: Philip de Goey and Nico Dam (Eindhoven University of Technology)
Researchers: Ulas Eguz, Niels Leermakers (Eindhoven University of Technology)

Please also visit our new website: www.cleancombustionconcepts.nl where more information about the Clean Combustion Concepts program can be found.

11.30 – 12.30  Project presentations
12.30 – 13.30  Lunch
13.30 – 15.00  Project presentations
15.00 – 16.00  Poster session + coffee/tea
16.00 – 17.30  Project presentations
17.30 – 18.00  Closure & conclusions
18.00 – 19.00  Drinks
19.00 – 21.00  Conference dinner
21.00 – late  Bar & overnight stay
Day 2
Thursday 4 October 2012

09.00  – 10.00  Registration and coffee
10.00  – 10.15  Opening and welcome by
Theo van der Meer
10.15  – 11.00  Keynote lecture by
Dr. Werner Krebs (Siemens)
“Combustion Technologies for
future Gas Turbines: design
methodology and validation”
11.00  – 11.30  Coffee break
11.30  – 12.30  Parallel sessions with
20 minutes talks
12.30  – 13.15  Lunch
13.15  – 14.00  NVV Combustion Award
14.00  – 15.00  Poster session “Work in Progress”
15.00  – 16.00  Parallel sessions with
20 minutes talks
16.00  – 16.15  Coffee break
16.15  – 17.00  Keynote lecture by
Prof. Luc Vervisch
(INSa/CORIA, Rouen)
“Combustion, flames and burner
design: challenges and
computing tools”
17.00  – 17.15  Poster prize awards
17.15  Closure

Location
COMBURA 2012 will be held in Vaeshartelt
Castle just north of Maastricht. The castle is close
to highway A2 and Maastricht-Aachen airport. The
conference centre is surrounded by a magnificent
English park with several ponds, terraces and
beautiful bushes and trees. Vaeshartelt Castle is
a conference centre with an all-in-one formula.

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F 043 362 60 60
info@vaeshartelt.nl
www.vaeshartelt.nl

Call for papers
You are invited to submit the title of your 20
minutes talk (including questions) before 18 June
2012 to the COMBURA Conference Office at STW.
Those who are selected for an oral presentation will
be notified as soon as possible after this date. After
acceptance you will be asked to prepare an abstract
of your presentation in Word (maximum 2 pages) for
publication in the Book of Abstracts. Deadline for
abstracts is 10 September 2012. Please send
the title of your presentation to the COMBURA
conference office (brand@stw.nl). After acceptance
please also send us your abstract.

Call for posters
“Work in Progress” will be presented during the
poster session. Participants from industry, research
institutes, universities and others are invited to
submit posters with recent research results. If you
intend to present a poster, please send the title of
your poster to the COMBURA Conference Office at
STW (brand@stw.nl). After acceptance you will
be asked to prepare an abstract of the presented
research in Word (maximum of 2 pages) for
publication in the Book of Abstracts.
Deadline for abstracts is 10 September 2012.
Poster prize

For PhD and Master students, a poster prize will be awarded. The prize for the best poster is €250. The second and third prizes will be €150 and €75, respectively. The poster prizes are sponsored by the Dutch section of the Combustion Institute.

NVV Combustion Award

At the COMBURA symposium the NVV Combustion Award 2012 will be presented to the young expert with the best Master Thesis in the field of combustion technology.

Costs

- **Registration fees per day**
  - free for (master) students
  - €50 for KIVI NIRIA members
  - €100 others

- **Optional hotel accommodation**
  - conference night
  - €80 single room
  - €110 double room (€55 per person)

- **Conference dinner on Wednesday 3 October 2012**
  - €20

- **Registration after 10 September 2012**
  - extra charge of €40

Registration

Participants may register for one or two days. Overnight stay and conference dinner is optional. Registration can only be done via the following website: [www.cleancombustionconcepts.nl/meetings](http://www.cleancombustionconcepts.nl/meetings) and select registration. If you wish to stay overnight please register as soon as possible to make sure that your hotel room is available. Registration fee includes lunch, coffee/tea, drinks and the Book of Abstracts.

Information

COMBURA Conference Office
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Organizing Committee

- **Theo van der Meer**
  - Chairman Platform Schone en Zuinige Verbranding and University of Twente

- **Dirk Roekaerts**
  - Combustion Institute and Delft University of Technology

- **Jeroen van Oijen**
  - Eindhoven University of Technology

- **Ferry Tap**
  - Dacolt and Nederlandse Vlam Vereniging

- **Liselotte Verhoeven**
  - Eindhoven University of Technology

- **Astrid van der Stroom**
  - Technology Foundation STW

- **Leo Korstanje**
  - Secretary Platform Schone en Zuinige Verbranding and Technology Foundation STW

Sponsored by

- Technology Foundation STW
- Nederlandse Vlam Vereniging
- Dutch Section of the Combustion Institute
- KIVI NIRIA Section Energy and Heat Technology