

October 9 & 10

COMBURA

NVV  2019

First Announcement &
Call for Papers and Posters

NVV 
Nederlandse Vereniging
voor Vlamonderzoek

GENERAL INTRODUCTION

The COMBURA symposium is the major annual event for exchange of information on combustion research and its practical applications, in the Netherlands. It is an initiative of the Nederlandse Vereniging voor Vlamonderzoek NVV (Netherlands Association for Flame Research).

Participants from universities, research institutes, and industrial companies in the Netherlands and surrounding countries are invited. At the symposium, the latest developments and innovations in advanced combustion research will be presented, with the emphasis on the potential for application in industry. In addition, the symposium offers unique chances to expand and maintain your professional network.

COMBURA 2019 will take place on Wednesday, 9th of October and Thursday, 10th of October 2019. The venue for this event will be the conference hotel Kontakt der Kontinenten in Soesterberg, which is located between the cities of Utrecht and Amersfoort.

Wednesday October 9th

The first day of the symposium will start in the late afternoon with the NVV Members Meeting. NVV members will receive a separate invitation for this meeting. After the meeting the COMBURA conference dinner will be served. This dinner is also open to non-NVV members and COMBURA participants are invited to join. After the dinner conversations can be continued at the bar, and participants can stay overnight in one of the comfortable hotel rooms.

Thursday October 10th

The symposium will start with three keynote lectures and a panel discussion which are interlinked by the subject of "sustainable fuels for energy and transportation". The topics of the keynote lectures will be biomass for energy, methanol for IC-engines and combustion technology developments in the aerospace sector.

After the panel discussion, we will have lunch with the opportunity to see the posters exhibition. In the afternoon the technical talks of 20 minutes each will be given in parallel sessions by experts in the field of combustion research from universities, research institutes and companies.

• Keynote Lecture 1

Biomass for energy: technological options and challenges in meeting the Paris agreement goals.

Dr.ir. Jaap Kiel

Jaap Kiel received both his M.Sc. and Ph.D. degree from the University of Twente where he focused on combustion in fluidized bed reactors and removal of sulphur- and nitrogen oxides from flue gasses. He currently is the programme development manager of the Biomass Programme at ECN (part of TNO), covering R&D on bio-based fuels and chemical feedstock production through various thermochemical biomass conversion technologies, flue gas separation technologies and chemo-catalytic downstream processing. The Biomass Programme at ECN comprises approx. 50 FTE and focusses on subject like biomass pre-treatment and upgrading, biomass gasification and (catalytic) product gas cleaning. Jaap Kiel also coordinates the subprogram on Thermochemical Processing within EERA Bioenergy, an alliance of European energy R&D centres.

• Keynote Lecture 2

Methanol as a fuel for internal combustion engines.

Dr.ir. Sebastian Verhelst

Sebastian Verhelst acquired both his M.Sc. and Ph.D. degree at Ghent University in Belgium; during his Ph.D. he spent eight months at the University of Leeds (UK) as a Marie Curie research Fellow. Subsequently he became an Assistant Professor and ultimately

a Full Professor at Ghent University, and an Associate Professor at Lund University (SE) in parallel. His research interests are focused on realizing sustainable transportation and the role of combustion engines therein, and he is specialized in alternative fuels (hydrogen, methanol, ethanol, vegetable oils etc.) for reciprocating internal combustion engines. He has led multiple national and international projects on alternative fuels, in-cylinder heat transfer and medium speed diesel engines. Recently, Sebastian Verhelst has been involved in the LeanShips project, which focused on the usage of methanol as a fuel for maritime applications.

• Keynote Lecture 3

Combustion technology development within the civil aerospace sector.

Dr.ir. Ruud Eggels

After completion of his M.Sc. in Applied Physics, Ruud Eggels obtained his Ph.D. degree in the field of combustion chemistry modelling in the Combustion Technology Group of the Eindhoven University of Technology. During his Ph.D. Ruud Eggels focussed on tabulation methods for combustion chemistry, something he is still heavily involved in at his current employer, Rolls-Royce Deutschland, where he is a Combustion Specialist. Ruud Eggels works for Rolls-Royce Deutschland for over two decades now, where leads the (numerical) methods development for simulation of combustion in aero-engines combustors. He (still) has a special interest in applying reduced and tabulated chemistry for complex fuels, and spray break-up and vaporization modelling. Tools and methods developed under his supervision are directly implemented in the combustion design- and optimisation processes Rolls-Royce employs to reduce fuel consumption and emissions of NO_x, UHC's and soot.

Following lunch 20 minutes talks will be given in parallel sessions by experts in the field of combustion research from universities, research institutes and companies. This call is an invitation for those who want to present their work on combustion technology in these sessions.

All topics related to combustion are welcome, for example:

- Modelling
- Experimental work
- Industrial and domestic applications
- Power to gas/power to fuel
- Fuel utilization
- Bio-fuels
- Flue gas cleaning
- Carbon capture
- Boilers
- Heaters
- Engines
- Gas turbines

One of the highlights of the COMBURA symposium will be the presentation of the NVV Combustion Award for the best Master's Thesis in the area of combustion technology. The winning young expert will give a lecture about his/her combustion research project. After the final remarks and closure of the day everyone is invited for a drink at the bar.

LOCATION

• Conference hotel Kontakt der Kontinenten

Amersfoortsestraat 20
3769 AS Soesterberg

Phone +31 346 35 17 55

Email info@kontaktderkontinenten.nl

CALL FOR PAPERS

You are invited to submit the title of your 20 minutes talk before 21-8-2019 to the COMBURA Conference Office (combura@vlamvereniging.nl). 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 or PDF (maximum 2 pages) for publication in the Book of Abstracts. **Deadline for submitting abstracts is 18-9-2019.**

CALL FOR POSTERS

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 (combura@vlamvereniging.nl). After acceptance you will be asked to prepare an abstract of the presented research in Word or PDF (maximum of 2 pages) for publication in the Book of Abstracts. Deadline for submitting posters is 18-9-2019.

POSTER PRIZE

For the poster presenters, a prize will be awarded. The prize for the best poster is €150. The second and third prizes will be €100 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 2019 will be presented to the young expert with the best Master Thesis in the field of combustion technology.

COSTS

- € 50,- *Bachelor/Master/PhD students*
- € 60,- *NVV members*
- € 150,- *others*
- € 40,- *conference dinner*
- € 100,- *Overnight stay (single room)*

REGISTRATION

Registration can only be done via the following website: www.combura.nl. 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 digital Book of Abstracts.

ORGANIZING COMMITTEE

- **Jeroen van Oijen**
Eindhoven University of Technology and chairman of the Nederlandse Vereniging voor Vlamonderzoek
- **Harshit Gupta**
Bekaert Combustion Technology and secretary of the Nederlandse Vereniging voor Vlamonderzoek

PROGRAM COMMITTEE

- **Dirk Roekarts**
Delft University of Technology and Eindhoven University of Technology
- **Giel Ramaekers**
AVL Dacolt
- **Cedric Devriese**
Turbotec

CONTACT

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- **Nederlandse Vlam Vereniging**

