

Gaz de France, Direction de la Recherche
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 FRANCE

Objectives SAFEKINEX

The objective of the EU-project Safekinex is to optimise industrial hydrocarbon oxidation processes by understanding of the phenomena occurring and the impact these have on gas explosion safety.

To fulfill the needs of industry, the project is thus focused on the acquisition of knowledge and data on gas explosion properties and mechanisms of ignition of gas mixtures containing hydrocarbons.

The objectives are:

1. To develop detailed, well-validated kinetic models, in particular for the low and intermediate temperature oxidation regime of hydrocarbons.
2. To describe self-ignition processes including cool flame.
3. To create a database containing experimental explosion indices over a broad range of initial pressures and temperatures (e.g. explosion pressures, flammability limits, burning velocities, ...).
4. To integrate this knowledge and create advanced modelling tools for calculating laminar burning velocity, explosion propagation in closed vessel, pressure-time profiles, self-ignition, and minimum ignition energy.

Workshop EU project Safekinex

What are the limits of safe operation of hydrocarbon processing?



Partners EU Project Safekinex:

TU Delft NL
 CNRS Nancy
 VUB Brussels
 BAM Berlin
 WUT Warsaw
 TUW Wroclaw
 University of Leeds
 University of Karlsruhe
 INERIS Verneuil-en-Halatte
 BASF Ludwigshafen
 Shell Global Solutions /Amsterdam
 Gaz de France, Paris
 Laborelec Brussels

Paris, Gaz De France, site St. Denis
 28 and 29 November 2006

Workshop Programme

This workshop is intended for process designers, engineers, researchers and safety specialists. It serves to provide insight in the complex processes of the ignition of hydrocarbon and oxidiser mixtures, deflagration and detonation, and in the chemistry and physics underlying these phenomena.

The programme will be as follow :

Tuesday 28-11, 13h-18h

- Problem analysis
- Theoretical backgrounds on detailed oxidation kinetics and on explosion science

Wednesday 29-11, 8h30-12h

- Experimental section:
 - Self-ignition phenomena
 - Explosions
- Model simulation: self-ignition

Wednesday 29-11, 13h-17h

- Model simulation:
 - Kinetics reduction for CFD
 - Laminar burning velocity
 - Explosion simulation
 - Model demonstration
- Applications:
 - Safety standards
 - Database
- Lab tour Gaz de France

Organisation

Dates:

Tuesday, 28 and Wednesday, 29 November 2006, from 13.00h to 18.00h and from 8.30h to 17.00h, respectively

Venue:

Paris, Gaz de France, site St. Denis

Costs:

Attendance is *free* apart from the cost of lunches and the dinner Tuesday evening. Information on the exact amount of the cost to be contributed will be provided later.

Accommodation:

A list of hotels will be distributed to each participant.

Contacts:

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See also www.safekinex.org

N.B. There is limited room in the venue, so in case of oversubscription, industry representatives will be given preference

Yes, I want to participate in the SAFEKINEX workshop

Name: _____

Address: _____

Postal Code: _____

City: _____

Country: _____

Company: _____

E-mail address: _____

Signature: _____

It is also possible to apply by e-mail:

h.j.pasman@tnw.tudelft.nl