

21

MAY 2013

CRS4

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Room D130

SEMINAR

Combustion Activities in ENEA: Focus on Anchoring Mechanisms in Syngas/Air Flames

Speaker

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Abstract

A short presentation of combustion activities at the Sustainable Combustion Processes Laboratory of ENEA will be provided, covering experimental and numerical aspects. Emphasis will be given to combustion dynamics in gas turbines, related to the current scenario that shows interest in burning hydrogen-blends and in increasing the share of renewable sources of energy. In relation to the fuel-flexibility issue in gas turbines, results from a LES numerical simulation of a non-premixed syngas/air turbulent flame will be presented. Focus will be posed on the anchoring mechanisms, and in particular on hydrogen and heat preferential diffusion effects.