



## PREFACE

This CD contains the invited lectures and contributed papers presented at the European Combustion Meeting ECM2007. In accordance with previous ECMs, the ECM2007 aims to provide a forum for knowledge transfer in the field of combustion and related scientific and technological disciplines among academic researchers, graduate students and combustion professionals, to promote European co-operation in combustion research and development and to disseminate the activities of the European combustion community to a wide audience.

The ECM2007 meeting is held at the Mediterranean Agronomic Institute of Chania (MAICh) in Chania, Crete, Greece from 11 to 13 April 2007. The meeting is organised by the Greek Section of the Combustion Institute under the auspices of the Federation of the European Sections of the Combustion Institute and is the third in what proves to be a very successful series. The first ECM was held in Orléans from 25-28 October 2003 and was organised by the French Section of the Combustion Institute. The scientific programme consisted of 215 contributed papers from 24 countries and invited lectures on biomass combustion, chemical kinetics of combustion, flamelet based reduction methods, laser imaging techniques and combustion assisted hydrogen production. The second ECM was held at the Université Catholique de Louvain in Louvain-la-Neuve from 3-6 April 2005 and was organised by the Belgian Section of the Combustion Institute. The scientific programme consisted of 256 contributed papers from 24 countries as well as invited lectures on HCCI engines, soot formation cool flames, LES for turbulent combustion and mild combustion.

The technical program of ECM2007 consists of 361 papers from 20 European countries (Austria, Belgium, Croatia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland, Netherlands, Turkey, UK) as well as from Algeria, Canada, China, Iran, Israel, Japan, Mexico and the US, covering all aspects of combustion science and technology, from fundamental physical and chemical processes, including chemical kinetics, laminar and turbulent flames, combustion diagnostics, coal and biomass combustion, spray and droplet combustion, fires, detonations and explosions, combustion oscillations and control and materials synthesis, to a wide range of applications, such as internal combustion engines, gas turbines, fuel cells and state-of-the-art burners and fluidised beds. Invited lectures on biomass combustion, coal combustion, automotive fuels, combustion/atmosphere interactions and on catalytic combustion further demonstrate the central role of combustion research in a world where energy efficiency and environmental protection are of primary importance.

On behalf of the ECM2007 organising committee, we would like to thank the invited speakers and all the authors for their high quality contributions. We would also like to express our gratitude to the board members of the Federation of the European Sections of the Combustion Institute and in particular to Dr Iskender Gökalp for his help and support throughout the preparation of this meeting. Warm acknowledgements are further due to the board members of the Greek Section of the Combustion Institute and in particular to Prof. Nina Vamvuka as our woman in Chania! We also wish to acknowledge the MAICh Conference Centre personnel, namely Mrs A. Zervou, K. Karapataki, E. Stavridou, Mr N. Psyllakis and Mr S. Painesakis for their excellent work. Last but not least are warmest thanks to Mr Thodoris Kaloumenos for artistic inspiration and to Mr Stelios Markogiannakis for valuable assistance in setting up the ECM2007 website.

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# THIRD EUROPEAN COMBUSTION MEETING

## ECM 2007

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