

## **HEAT EXCHANGER FOULING AND CLEANING – 2011**

05–10 June 2011, Crete Island, Greece

### **PREFACE**

Heat exchangers play a crucial role in most chemical, food processing and power generating processes. However due to the nature of fluids involved in the process, deposits tend to form on the heat transfer surfaces which may profoundly reduce the efficiency of the apparatus. The penalty for fouling includes oversized plant, reduced thermal efficiency, increased pressure drop, additional maintenance and loss of production. For example, energy losses due to fouling of heat exchangers account for at least 2% of the total yearly world energy production. The overwhelming proportion of these losses is substituted by additional consumption of fossil energy carriers. Not surprisingly, this comes with an enormous energy price-tag as well as considerable green-house gas emissions, acidification of water resources and release of chemical fouling inhibitors or cleaning agents.

Bi-yearly conferences on heat exchanger fouling and cleaning were held since 1995. These meetings provide an opportunity for experts from industry, academia and government research centres from around the world to present their latest research and technological developments in the areas of fouling mitigation and cleaning technologies. They involve overview presentations, technical papers, poster sessions, and panel discussions. Following the highly successful meetings in San Luis Obispo, USA (1995), Lucca, Italy (1997), Banff, Canada (1999), Davos, Switzerland (2001), Santa Fé, USA (2003), Kloster Irsee, Germany (2005), Tomar, Portugal (2007), Schladming, Austria (2009), the 9<sup>th</sup> conference in this series was held in the Crete Island of Greece, in June 2011.

The following papers have been presented and recommended for publication in the post conference e-proceedings, after a careful refereeing and revising process. The proceedings cover many aspects of heat exchanger fouling along with innovative state-of-the-art fouling mitigation and cleaning strategies. The present e-proceedings as well as those from the previous conferences from 2003 onwards can be obtained free of charge from the homepage of the Heat Exchanger Fouling and Cleaning conference series:

[www.heatexchanger-fouling.com](http://www.heatexchanger-fouling.com)

Finally, the editors wish to thank everybody who contributed towards the conference and the post conference e-conference proceedings, i.e.

- all the authors and participants who invested substantial efforts to produce high-quality papers and to attend the conference
- the technical referees who helped to improve the quality of these papers even more, by providing valuable and helpful comments
- the Conference Advisory Committee and the Session Chairpersons

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