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PREFACE

The heat exchanger fouling and cleaning community is confronted with new challenges that have not been foreseen in the past and with old problems that are increasingly getting worse. For example, the automotive industry utilizes more heat exchangers to meet efficiency and emission standards by reducing NOx through exhaust gas recirculation (EGR) coolers. While theoretically being very effective, this technique has been severely hindered by rapid formation of various types of deposit on the cooler surfaces. Along the same lines, oil refineries nowadays have to cope with heavier crude oils or densified residuals with higher risk of fouling from sources which until recently have not been economical to process. World population growth, particularly in coastal arid areas, demands more potable water from seawater desalination which is prone to formation of deposits. Numerous studies have shown that heat exchanger fouling may be responsible for 1-2.5% of global CO_2 emissions. Cost penalties due to fouling, e.g. for additional fuel, down-time, over-design, cleaning chemicals, etc., have been estimated as about 0.25% of the GDP of industrialized nations.

A bi-yearly series of conferences on heat exchanger fouling and cleaning has been organized since 1995, mostly by the editors of the present e-proceedings. These meetings provide a unique opportunity for experts from industry, academia and government research centres from around the world to present their latest research findings and technological developments in the areas of fouling mitigation and cleaning technologies. The meetings consist of 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), Crete Island, Greece (2011), Budapest, Hungary (2013), the 11th conference in this series was held in Enfield (Dublin), Ireland (2015).

The following papers have been presented and recommended for publication in the conference e-proceedings after a careful refereeing and revision process. The proceedings cover many aspects of heat exchanger fouling along with innovative state-of-the-art fouling mitigation and cleaning strategies. The editors wish to thank everybody who contributed towards the conference and the post conference e-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 sponsors; and
- the Conference Advisory Committee and the Session Chairpersons.

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