

Preface

The chemical industry plays a very important role in the economic development and in our industrialised society. The number of chemical plants around the world is large and still growing which increasingly attracts the attention of the public to the degradation of the environment. The human society has recognised, that steps must be taken to establish suitable environmental regulations, otherwise the human welfare can not be guaranteed in the future. To give an example, fine dust concentrations in the air, also originated from emissions of industrial plants, were found in recent time to be a very dangerous health hazard and are responsible for numerous diseases and even for a shorter life expectancy. Therefore dust measuring parameters like PM₁₀, PM_{2,5} and PM₁ were established to develop suitable control methods for the waste gases of chemical plants. Similar considerations and regulations are on the way concerning the control of emissions originating not only from waste gases but also from waste water and solid waste.

Reflecting these subjects a meeting entitled “CHEMICAL INDUSTRY AND ENVIRONMENT V” was organised in Vienna, Austria on 3–5 May 2006.

The purpose of this meeting was to bring together engineers, managers, scientists from industry and universities and relevant administration officials to inform and discuss new developments and the latest innovative ideas in the field of:

Air pollution control, waste gas treatment and separation
Waste water treatment and relevant separation methods
Waste minimization and disposal
Risk analysis and loss prevention
Methods in testing, validation and monitoring
Process improvement

This meeting EMChIE V was the fifth of its kind in series and from the number of 147 paper contributions of 25 different countries a selection of 25 papers was chosen for a special issue of the journal *Hazardous Materials*.

It was the visionary idea of Prof. Casal from the Universitat Politecnica de Catalunya, Spain to start with the first meeting EMChIE I in Gerona, Spain, followed by EMChIE II in Torino, Italy 1996, EMChIE III in Krakow Poland, 1999, and EMChIE IV, Las Palmas, Spain 2003.

In concluding this Preface I wish to express my sincere thanks to all authors for submitting their papers in time. A warm word of thanks to all sponsors, companies and institutions who have been our supporters and sponsors and to all friends and colleagues who have collaborated in it. I hope that all experts reading this special issue will enjoy it and find it worthwhile.

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