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Preface

Second International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions Eighth International Colloquium on Dust Explosions. Third Colloquium on Gas, Vapor, Hybrid and Fuel-Air Explosions

This special issue of the Journal of Loss Prevention in the Process Industries contains selected papers from the Eighth International Colloquium on Dust Explosions, and the Third Colloquium on Gas, Vapor, Hybrid and Fuel-Air Explosions.

These two colloquia jointly formed the Second International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions, which was held in Schaumburg, Illinois (USA) from September 21–25, 1998. The symposium was organized and chaired by C. James Dahn of Safety Consulting Engineers, Inc. (Schaumburg). It was co-sponsored by the Warsaw University of Technology, the Committee for Thermodynamics and Combustion of the Polish Academy of Sciences, the Pittsburgh Research Laboratory of the National Institute for Occupational Safety and Health (NIOSH), the ASTM E-27 Committee on the Hazard Potential of Chemicals, and the NFPA Committee on Explosion Protection Systems.

The dust explosion colloquium series was initiated by and is still coordinated by Prof. Piotr Wolanski (Warsaw University of Technology), with the colloquia initially being held in Poland: Baranow (1984), Jadwisin (1986), Szczyrk (1988), Porabka-Kozubnik (1990), and Pultusk (1993). The sixth meeting took place in Shenyang, China (1994), and the seventh in Bergen, Norway (1996).

Similarly, in 1981 Prof. John Lee (McGill University) initiated the International Specialist Meeting on Fuel-Air Explosions, held in Montreal, Canada. A second and similar meeting was held in Bergen in 1996 in conjunction with the above-mentioned Seventh International Colloquium on Dust Explosions. The two meetings in Bergen occurred under the name of the International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions.

The subject of the current special issue, the second such symposium, was aimed at again bringing under one roof, researchers and practitioners dealing with a variety of potential sources of explosions — dusts, gases, vapors, hybrid mixtures and solid explosives. This trend continues with the Third International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions, planned for October, 2000 in Tsukuba, Japan. This meeting will consist of the Ninth International Colloquium on Dust Explosions, and the Fourth Colloquium on Gas, Vapor, Liquid, Hybrid and Fuel-Air Explosions.

Thirteen papers from the Eighth International Colloquium on Dust Explosions appear in this issue of the journal. Beginning with an overview of dust explosion characteristics, subsequent papers explore various aspects of the unique hazards posed by fine, particulate matter. Prevention and mitigation strategies are discussed from essentially all perspectives: experimental work, modeling efforts, fundamental studies, and practical applications.

Thirteen papers from the Third Colloquium on Gas, Vapor, Hybrid and Fuel-Air Explosions also appear in the special issue. The research described in this collection is aimed at investigating the hazards presented primarily by gases and vapors (with the final paper examining solid explosives). As with the dust explosion papers, prevention and mitigation strategies are addressed from a variety of perspectives.

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Although each paper was peer-reviewed prior to presentation at the symposium, additional reviews were sought before publication in the Journal of Loss Prevention in the Process Industries. We would therefore like to thank the authors for their patience and the many reviewers for their diligence in ensuring the quality of the final product.

We would also like to mention that additional papers from the symposium have recently been published in *Archivum Combustionis* (through the efforts of Piotr Wolanski) and *Process Safety Progress* (a publication of the American Institute of Chemical Engineers). It is our hope that collectively, the current issue and those papers published elsewhere will form a timely resource in the archival literature on the subject of industrial explosions.

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