

Preface

Process Tomography has its roots in medical tomography. An application of a distributed sensor around the periphery of a process vessel provides images of the concentration and movement of components inside in real time. Nowadays, Process Tomography can be applied to a whole range of physical and chemical processes realised at various temperatures and pressures.

The First World Congress on Industrial Process Tomography, which took place on 14–17 April, 1999, in Buxton, UK, brought together industrialists and researchers from all over the world. One hundred and thirty delegates registered from all the five continents. Nearly one-quarter of the delegates were non-academic. The World Congress followed a set of previous annual meetings, which started in 1992 and were organised by the European Concerned Action on Process Tomography. During 4 days more than 90 papers were presented followed by vivid and stimulating discussions. The

papers covered all aspects of Process Tomography such as hardware design, software development and many new and different applications of various tomographic techniques.

This volume contains a selection of papers concerned with a wide range of applications of Process Tomography varying from monitoring waste material to environmental protection, through imaging physical and chemical processes in pharmaceutical and chemical industries, and mineral processing. Papers presenting the latest algorithm and data processing methods are also included. This special issue reflects how Process Tomography is rapidly being developed into a mature technique being applied all over the world.

T. Dyakowski, R. Mann
Chemical Engineering Department
UMIST, P.O. Box 88
Manchester, M60 1QD, UK