

Preface



Professor Mike Winterbottom

Professor Mike Winterbottom gained his Ph.D. from the University of Hull in 1962 under the supervision of Prof. Geoff Bond. After a spell of postgraduate work in industry, he joined the Department of Chemical Engineering at the University of Birmingham in 1967. Mike established his research on Catalysis and Reactor Design at the University of Birmingham, making the transition from Chemist to Chemical Engineer. Of particular note during his long career was his contribution to the development of the Co-current Downflow Bubble Column Reactor (CDCR) [1,2], a novel mass transfer device developed at the University of Birmingham from the 1970s onwards. Mike has worked on selective hydrogenation catalysis for many years, including the hydrogenation of itaconic acid [3] and soyabean oil in the CDCR, and extended the application of the reactor to photocatalysis [4]. More recently he has participated in major consortia in catalysis, such as the EPSRC Innovative Manufacturing Initiative on Advanced Trickle Bed Technology, DTI-Link project Parallel Processing for the Scale-Out of Fine

Chemical Catalysis [5] and the EPSRC/Johnson Matthey ATHENA project on Advanced Technology in Catalytic Chemistry and Engineering for Novel Applications [6]. These projects have led to collaboration with a range of UK Universities including Cambridge, Glasgow, Cardiff, Surrey and overseas institutions such as the Fritz Haber Institute in Berlin, Germany and Northwestern University in Chicago, USA. Mike is particularly proud of his close links with industry, including Johnson Matthey Catalysts, BP and Shell, which he considers the key to collaboration in Industrial Catalysis. As well as being Emeritus Professor, Mike is now a director of WRK Design and Services, a spin out company of the University of Birmingham that specialises in reactor design and experimental testing.

Mike was also a well-respected teacher who made a major contribution to the teaching of reactor and process design at the University of Birmingham. During the 1970s he ran a vacation course in collaboration with Shell, which led to an industrial design project being developed with the company. His book, co-edited with the late Dr. M.B. King, “*Reactor Design for Chemical Engineers*” [7] is still widely used by students today, and Mike is presently updating it during his busy retirement.

Mike Winterbottom’s career of 40 years dedicated to Research and Learning at the University was celebrated with a seminar on 22nd February 2007, entitled “*Bridging the Molecular and Macroscopic Gap*”. Around 70 friends, colleagues and family of Mike gathered to mark his retirement, including his former Ph.D. supervisor, Prof. Geoff Bond, collaborators from academia and industry. The papers presented covered a broad range of topics from the preparation of novel nano-catalysts to mass transfer and mixing effects at the scale of the industrial reactor, including some of the current Ph.D. work being carried out in Reaction Engineering at Birmingham. Selected presentations made during the day are combined with some invited contributions in this, “Mike Winterbottom’s Special Issue” of *Catalysis Today*. Friends and colleagues would like to wish Mike all the best for his retirement.

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