

## Personal memories of early zeolite conferences

Alan Dyer\*

The first International Conference was that on “Molecular Sieves” held in central London<sup>1</sup> at The University of London’s School of Pharmacy, Brunswick Square, on April 4-6, 1967. The organising body was the UK Society of Chemistry and Industry.

The cost to participants was £20 (including a set of pre-prints - see attached advertisement). This did not include accommodation but London hotel prices were acceptable in those days! Each session was overseen by a Chairman and a President, as listed in the advert, with Messrs Haresnape, Sargent and Challis representing the SCI. The contributions from scientists, such as Zhdanov, Kiselev and Wolf (who lectured in German) from the other side of the “Iron Curtain” were a unique step in zeolite research.<sup>2</sup> Attendance was 200 with 34 papers presented.

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\* See a brief CV at the end of the article.

<sup>1</sup> The only time that an IZA conference has been held in the UK!

<sup>2</sup> Prior to this time details of work by USSR zeolite workers was only available in the UK via a translation of “Molecular sieves and their use”, a book by V. A. Sokolov, N. S. Torocheshnikov and N. V. Kelt’shev, produced in Moscow in 1964 intended for “engineers and technicians in the gas and oil-chemical industries” and available for 67 kopeks. The translation was published by Joseph Crosfield and Sons, Warrington, UK, who pioneered

**Conference on Molecular Sieves**

A conference on Molecular Sieves, arranged by the Society of Chemical Industry, will take place in London on April 4, 5 and 6, 1967, and those interested in attending are reminded that registration cards should be completed by February 24, 1967. The conference fee is 200s (150s for members of the Society) and includes a set of preprints.

Thirty-one papers will be presented by authors from Canada, Czechoslovakia, France, Germany, Switzerland, UK, USA and USSR. The conference will deal with the following topics: Mineralogy and Structure; Synthesis; Catalysis; Zeolite Modification and Regeneration; Applications; Sorption and Diffusion Phenomena; General Properties. There will be six sections for which the chairmen and presidents will be:

<i>Section</i>	<i>Chairman</i>	<i>President</i>
1.	R. M. Barrer	S. P. Zhdanov
2.	D. W. Breck	W. M. Meier
3.	J. N. Haresnape	W. Schirmer
4.	R. M. Milton	A. A. L. Challis
5.	R. W. H. Sargent	L. B. Sand
6.	J. V. Smith	D. J. C. Yates

Copies of the programme and registration card may be obtained from the Conference Secretary, Society of Chemical Industry, 14 Belgrave Square, London, S.W.1.

Scientific memories were of the unprecedented opportunities to hear lectures from so many pioneers of zeolite science (Barrer, Breck, Meier, Sand, Milton-and many others). I had met Professor Barrer previously at an RSC Meeting held at Aberdeen in 1966. After what was my first presentation to an In-

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the industrial production of zeolites and whose site, now owned by P&Q, still manufactures zeolites to this day.

ternational Meeting, he came up to me and said that he hoped I would continue to work on zeolites - a large boost to my career. Some years later he kindly advised me on a mathematical diffusion problem and I was honoured to host his 80th Birthday Symposium during my period as Chairman of the British Zeolite Association.

Listening to Don Breck was to recognise a man of great importance in our area of study and a great loss on his premature death, but tempered by the presence of Edith Flanigen. Both Walter Meier and Len Sand became good friends and one of the last times I met Walter was an accidental meeting on the Faroes - he was there on a much needed break for a walking holiday - after the Amsterdam Meeting - and would have happily joined in my purpose to collect natural zeolites, but his wife had other ideas! Len Sand stayed with us on one of his UK visits and on an evening in one of local restaurants found his figure a barrier to fitting into the rather tight distance between table and banquette. He left us with details of zeolite sites on the Isle of Skye but later confessed that he was not the same man that was a key geologist in the Union Carbide 1958 month long exploration for natural zeolites in the Western States of the USA!

The London social programme was limited to a reception at the Science Museum held in a room housing their collection of natural zeolites.

The second International Molecular Sieve Conference was attended by 300 participants from 18 different countries and 75 presentations and was held at Worcester Polytechnic Institute in the USA. Memories from this meeting were, initially,

overcast by the hijacking of an aircraft from Zurich on which Walter Meier was travelling. Happily Walter returned unscathed from his sojourn in the Jordanian desert, but the presence of a floodlit aircraft surrounded by an armed guard at Kennedy airport, awaiting Golda Meier (President of Israel), as the only plane on the apron - apart from ours - was a reminder of the conditions of the times in 1968.

Presentations were hugely helpful to myself as a young scientist and other memories included the magnificent brass epidiascope used to project slides and a reception at a local golf club used for the Masters Tournament, which included an introduction to New York State red wine.

It was also the first time I met Carmine Colella and Rosario Aiello - in the communal washroom of the WPI student dorms.

Both the 3<sup>rd</sup> and 4<sup>th</sup> Conferences –held in Zurich and Chicago respectively showed escalations in attendance and a widening of topics covered as appropriate to growth in our subject, with the Zurich venue heralding the formation of the IZA and a memorable conference trip to the Schynige Platte. Chicago saw Lovat Rees, Frank Leach, Barrie Lowe and myself reflecting on the very low attendance of other English zeolite scientists - both industrial and academic. We returned home and founded the BZA - the first of the regional zeolite societies - still going strong.

Delegates also witnessed a turnout of armed Chicago police when a visitor reported a sighting of Tutankamun's ghost at the conference visit to view the "Tut" exhibition!

May I conclude by acknowledging the friendship of 50 yrs of Lovat Rees with whom I spent many happy times at zeolite meetings, always accompanied by a good single malt.

*October 2014*

## **Professor Alan Dyer**

*Degrees* held: BSc, 1954, PhD, 1958, DSc, 1981.

*Professional*: Fellow, Royal Society of Chemistry 1967, C.Chem.

*Honours*: 1994 Award Royal Society of Chemistry for work in Separation Science

*Recent positions* held : Research Professor University of Salford, Visiting Professor University of Loughborough, 2009-12.

*Research interests* : Synthesis of zeolites and related materials, and their use as separation media. Ion-exchange. Diffusion of molecules, and ions in framework structures. Applications of, and studies in, natural zeolites. Novel-inorganic ion exchange materials for remediation of aqueous nuclear waste streams.

*Author* : 252 original papers , 3 books, Editor of 5 conference proceedings .Holder 12 patents.

*Supervised*: 66 PhD students, 100 other workers at MSc, or postdoctoral level.

*Consultant to* : Laporte Industries (20 yrs), Shell Research (10 yrs), British Alcan, Atomic Energy Authority (Harwell and Windscale sites), British Nuclear Fuels (10 yr) Sellafield, Springfields and Capenhurst Sites), Nexia Solutions, Nuclear Inspectorate (HMIP), Duracell, ICI, Air Products, British Gas, Water Research Council, North West Water, Pilkingtons Technology Centre, Nuclear Electric, Magnox, Magnesium Elektron, British Zeolite Company.MSI.

*Grant holder* with above agencies and European Communities F4 EU Contract No. FI4W-CT95-0016

*Expert in patent case*: Taylor, Joynson, Garrett, Solicitors, London (1996/7)

*Other positions held* : Chairman, Royal Society of Chemistry, Analytical Division, Radiochemical Methods Group, 1982-4, Chairman Royal Society of Chemistry, Analytical Division, North West Region, 1980-82, Chairman British Zeolite Association (founder member), 1989-91. European Editor, Thermochemica Acta., 1982-92 ,Member Editorial Board , Zeolites/Microporous and Mesoporous Materials, 1980-2001.