

# THE LIONEL STAVELEY RETIREMENT MEETING

Lionel Alfred Kirby Staveley, one of the foremost thermodynamicists of our time, retired from academic life on September 30, 1982. He had been a fellow of New College, Oxford, since 1939 and his research career was even longer, for he published his first paper, while still an undergraduate, in 1933. To mark and celebrate the occasion of his retirement, former students and collaborators organized a scientific meeting in his honour and this was held on June 25, 1982 at the Inorganic Chemistry Laboratory of Oxford University, where most of Dr. Staveley's research was carried out. Principal organizers in England were Drs. Roger Linford (Leicester Polytechnic), Keith Stead (Exeter University) and Neville Parsonage (Imperial College, London) whereas Professor R.D. Weir (Royal Military College, Kingston, Ontario) acted as coordinator for the American Continent. The meeting was attended by about 100 people coming from all over the world. Chemical Thermodynamics in Portugal owes a great deal to Dr. L.A.K. Staveley. He has been a frequent visitor to our country to give lectures and courses, participate in seminars and conferences, and discuss many fruitful research programs. Former students and collaborators of his now teach in five Portuguese universities. For this reason the **Revista Portuguesa de Química** feels very honoured and proud to devote the present issue to the proceedings of the **Lionel Staveley Retirement Meeting**. They are an excellent state-of-the art review on several fields of thermodynamic research and a useful contribution to the history of Thermodynamics in this century.

These proceedings follow closely the organization of the Meeting which was divided in three Sessions, with three invited contributions each.

## FIRST SESSION:

This reviews the wide-ranging contributions that Lionel Staveley has made to the study of fluids. He has helped theorists by selecting systems for

study that, despite the experimental difficulties involved, have been well suited to testing competing theoretical approaches. His pioneer work on noble liquid mixtures has led to notable studies at Oxford and elsewhere of increasingly diverse cryogenic systems. His precise measurements of liquid molar volumes, cross virial coefficients of gas mixtures and the earlier work on alcohol mixtures have been an example to experimentalists and theoreticians alike.

*Speakers:* K.E. Gubbins, W.B. Streett and G. Saville

## SECOND SESSION:

Lionel Staveley's investigation of the properties of solids have been diverse. He has developed refined calorimetric techniques for the measurement of heat capacities and solution enthalpies as well as electrochemical and other methods for Gibbs energy measurements. These have been used to elucidate phenomena ranging from ligand field effects in lanthanide salts to disorder in hydrates and ammoniates from 2K to 500K, from the behaviour of plastic crystals to adsorption on wartime charcoals. He has again helped theorists by studying substances whose structural properties resemble those used in theoretical models. He investigated clathrates to probe aspects of the lattice theories of liquids, worked on systems that model biological membranes, and studied low-dimensional magnetic systems.

*Speakers:* N.G. Parsonage, R.D. Weir and E.F. Westrum

## THIRD SESSION:

Not only has Lionel Staveley influenced science, he has also inspired scientists. To an unusual degree he has encouraged the progress of science in the developed and developing world. He has influenced the course of science and the lives of scientists in Canada, Portugal, Poland, Nigeria and many other countries. For thirty years and more he has been a leading figure in British Thermodynamics and Oxford chemistry circles.

*Speakers:* J.C.G. Calado, D.H. Everett and L.A.K. Staveley

