Professor Nouria A. Al-Awadi

A Tribute

This special issue of ARKIVOC is dedicated to Dr Nouria Al-Awadi as she celebrates her 55th birthday and moves on to another phase in a very active and successful scientific career. Her colleagues and friends are using the occasion both to look back on a varied but focussed scientific career to date and, as she enters a new phase this year, to look forward to the very significant position which she has recently taken up in Kuwait and the potential that this gives both to her personally and to the scientific community in Kuwait and worldwide.

In September 2006 she was appointed to the senior post of Vice President for Academic Affairs in Kuwait University.

Dr Nouria is a graduate of Kuwait University, taking her BSc there, majoring in Chemistry, in 1976. She then took the important decision to work for her PhD in the area of gas-phase kinetics with one of the leading proponents of the art, Dr David Bigley at the University of Kent at Canterbury. This began a long association with the major figures in this research area. She later returned to the UK initially (1983-4) as a Postdoctoral Fellow working in the laboratories of the late Dr Roger Taylor, at the School of Chemistry and Molecular Sciences at the University of Sussex and later (1988-9) as visiting Professor in the University of Kent.

Her PhD work showed that substituent effects could be measured with high definition by using well defined working conditions for gas-phase pyrolysis and the rationalisation of the observed rates of reaction proved to be a classic at the time of publication.

On her return to Kuwait in 1979, she was appointed to the staff of the Chemistry Department in Kuwait University, but also began a relationship with the more applied side of the subject through the Kuwait Institute of Scientific Research (KISR). This latter co-operation led to a number of publications including the study of the cross-linking ability of sulphur heterocycles and related compounds as plasticizers. During the period 1984-6 she was appointed as a part-time Researcher in the Materials Science Department in KISR.

In the Chemistry Department in Kuwait she quickly established a very strong independent research group (which is now, in the last five years, at its most active) and also took on major leadership roles in the Chemistry Department and in the University. She acted as Head of Department from 1993-5 and was Dean of the Faculty of Science from 1995 – 2001.

While Head of Department, she was instrumental in establishing Analab, an analytical services laboratory, which was superbly equipped, managed and supported. Services and training were offered both inside and outside the Department and technical backup ensured that the equipment was fully utilized and consultation offered in the interpretation of results. This was expanded Faculty-wide during the period when she was Dean through SAF (Science Analytical Facilities) which transmitted the benefits of its resources and capabilities to meet the broad-ranging and diversified requirements of other Departments. It also had the effect of promoting interdisciplinary work.

A feature of her work has been international communication and she (and her co-workers) have presented very frequently at high level international conferences. She was a speaker at the First European Symposium on Organic Reactivity in Paris, France in 1987, and when she and her colleagues made presentations at the recent 11th ESOR Meeting (2007) in the University of the Algarve, Portugal, it was remarked that there was in essence an entire session devoted to gas-phase pyrolysis and Chemistry in Kuwait!

She remained in Kuwait during the Iraqi occupation and later (1993) published a searing account of the damage done to the University and to the Chemistry Department. A central point in the book is that the laboratory equipment which was taken could only be of interest and use to other academics. It is difficult to forget many of the images in the book, particularly rooms stripped of all their laboratory benches, with just very forlorn plumbing pipes remaining buried in the walls.

When, after careful consideration, the University in Kuwait decided to institute a PhD programme, it was fitting that one of her students, Dr Alya Al-Etabi was the first PhD student conferred in the University.

Her current research group consists of four registered PhD students and eleven research associates and assistants, and her international standing is clear from the exponential increase in the number of citations of her work since the year 2000; the number of her publications has now just passed one hundred. Sophisticated equipment for the study of flash vacuum pyrolysis has been installed which has led to a systematic study of heterocylic eliminations, while recent work has also concentrated on the advantages of these reactions leading to clean synthetic procedures. Another feature of her work is international collaboration, and virtually all of the best known

current practitioners who study kinetics using gas-phase pyrolysis feature as co-authors in her publications.

Dr Al-Awadi is a Chartered Scientist and Chartered Chemist and Fellow of the Royal Society of Chemistry. Within Kuwait she has been a founding member of the Kuwait Chemical Society and is active in the Union of Arab Chemists. In addition she has been awarded the Kuwait Foundation for the Advancement of Science Award and the Kuwait University Best Researcher Award.

Selected Publications

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12. Ibrahim Y. A.; Kaul K.; Al-Awadi N. A. Flash vacuum pyrolysis of 3-oxo-2-arylhydrazonopropanals and related derivatives. *Tetrahedron* **2001**, *57*, 10171.

13. Al-Kandari, H.; Al-Khrafi, F.; Al-Awadi, N.; El-Dusouqui, O. M.; Ali, S. A.; Katrib, A, The catalytic active sites in partially reduced MoO_3 for the hydroisomerization of 1-pentene and n-pentane, *Applied Catalysis A: General* **2005**, *295*, 1.
14. El-Dusouqui, O. M. E.; Abdelkhalik M. M.; Al-Etaibi A. M.; Dib, H. H.; Al-Awadi, N. *A.* Flash vacuum pyrolysis of 1-azolyl-1-phenylhydrazono-2-propanones. *J. Heterocycl. Chem.* **2007**, *44*, 219.
15. El-Dissouky A.; Al-Awadi N. A.; Shauib N. M.; Abbas A. B. Synthesis and Spectroscopic studies on Iron(III) complexes of 1-benzotriazol-1-yl-1-[(p-X-phenyl)hydrazono]propan-2-one. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* **2007**, *67*, 1072.