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In Memoriam

**Eric Gérard Joseph Derouane, 1944–2008**

Eric Derouane died on 17th March 2008 from a heart attack in his home in Luz, Lagos, Portugal. With him, the Catalysis Community has lost one of its strongest and brilliant scientists.

Born on 4th July 1944 at Péruwelz (Hainaut), Belgium, Eric Derouane obtained a Licence degree at the University of Liège, B (1965), a Master of Arts (MA) degree in Chemistry in Prof. J. Turkevich's laboratory at Princeton University, USA (1966) and a Doctorat ès Sciences (PhD) at the University of Liège, B (1968), including a one year (1966–1967) in France at the "Service de Physique du Solide et de Résonance Magnétique, CEN Saclay" in Prof. A. Abragam's laboratory. He stayed a year (1969–1970) in USA at Stanford University as visiting Scholar in Prof. M. Boudart's laboratory. He became Research Assistant of the "Fonds National de la Recherche Scientifique" (FNRS) and Lecturer at the University of Liège, B (1969–1973). In 1973, he was appointed Professor at the "Facultés Universitaires Notre-Dame de la Paix" (FUNDP) in Namur, B, where he created the Laboratory of Catalysis, of which he remained Director until 1995. He was on sabbatical leaves in 1979 as Research Fellow with J. Sinfelt at Exxon Res. & Develop. Corp., Linden, USA, and in 1982–84 as Research Scientist, Head of Exploratory Catalysis Synthesis Group at Mobil Res. & Develop. Corp., Central Research Laboratory, Princeton, USA. In 1995, he became Full Professor at the University of Liverpool and was appointed Director of the Leverhulme Centre for Innovative Catalysis (LCIC). In 2003, he obtained the Gulbenkian Professorship at the University of Algarve in Faro, P, where he was Director of the Chemical Research Centre. He became later Invited Professor at the "Instituto Superior Tecnico" (IST) of the Technical University of Lisbon, where he had extensive cooperation with the group led by Prof. F. Ramôa Ribeiro.

His main fields of investigation dealt with catalysis over zeolites in general, supported metals, novel materials and mixed oxides in particular, and alkane upgrading and fine chemicals more specifically. One of Eric's most striking qualities was his acute interest for every new scientific discovery and for industrial applications of his findings.

Eric Derouane had an unusual working efficiency. He had a high intellectual mobility and was always attracted by new materials and new concepts. Among them, one can mention ZSM-5/MFI new zeolite in the early 70s, leading to a 30 year collaboration with J.C. Védrine, cuprate-type superconductors, confinement effect and molecular traffic control in zeolitic materials. He also studied reaction mechanisms using isotopic labelling and *in-situ* MAS-NMR in the 80s, combinatorial catalysis and high throughput technology in the late 90s.

During his 20 years of dedicated service to the University of Namur, Eric Derouane developed new concepts, which had an important impact on the catalysis and zeolite communities. In 1986, he was elected Head of the Chemistry Department. He then embarked upon an impressive restructuring programme to improve its efficiency. The model, which he initiated, is still in service today. His laboratory was recognized as an outstanding school of scientific research and education in catalysis.

Very early on, Eric Derouane realized the importance of interdisciplinarity, which led him to play a key role in the creation of the Institute for Studies in Interface Sciences (ISIS) at Namur in 1987, which gathered laboratories of physics and chemistry for 20 years. Eric Derouane also paid heed to technological transfer to industries. After his experience gained through his sabbatical positions at Exxon and at Mobil, he developed many collaborations with industrial partners and served as consultant.

At Liverpool, the aim of the LCIC was to promote creative fundamental catalytic science and often to take-up industrial challenges. Eric Derouane defined innovation as "the creation of a new or better product or process, implying creativity, usefulness, and application". Towards this end, the LCIC had industrial affiliates as partners. Under his leadership the LCIC became the largest catalysis centre in the UK and a centre of scientific exchanges and collaborations. Eric Derouane established links with many UK and international laboratories. He created in 1997 an

European Associated Laboratory “Laboratory for high specificity catalysis” between LCIC/University of Liverpool and Institut de Recherches sur la Catalyse, Lyon, F/CNRS .

In 1999, he co-founded with Prof. S. Roberts the *spin-off* Liverpool-based company “Stylacats”, of which he became director. He provided wise suggestions and ideas, which led the company to pioneer new technologies, in particular catalysts for asymmetric hydrogenation, microwave-induced reactions and enzyme mimetics.

At the University of Faro, Eric Derouane developed a research project, jointly with the Instituto Tecnico de Lisboa, on Friedel-Crafts reactions. He also collaborated closely on various research projects with Prof. F. Ramôa Ribeiro's zeolite group of the Instituto Superior Tecnico of the University of Lisbon.

Eric Derouane co-authored over 400 scientific papers, 11 books and 61 patents.

Eric Derouane also contributed to the development and strengthening of the European catalysis community. He created in 1975 the European Association in Catalysis (EUROCAT), a consortium of European laboratories under the auspices of the Council of Europe and promoted standardisation of characterisation of catalysts: Euro-Pt1 to -Pt4, Euro-Ni1 & -Ni2, Eurocat zeolite, Eurocat oxides, etc. This Eurocat group paved the way to the creation of the European Federation of Catalysis Societies (EFCATS) and of the François Gault lectureship. He was elected President of EFCATS in 1995 for two years.

He became Editor-in-chief of *J. Mol. Catal.* in 1982 and was member of the Editorial Boards of several scientific journals and member of the scientific committees of many congresses and colloquia. He co-organized several congresses himself, in particular with F. Lemos and F. Ramôa Ribeiro in Portugal, several NATO Advanced Studies Institutes on different topics including “the conversion of light alkanes”, “combinatorial catalysis and high throughput catalyst design and testing”, “principles and methods for accelerated catalyst design and testing” and “sustainable strategies for the upgrading of natural gas”.

Eric Derouane's contributions to catalysis have been recognised by many awards and academic honors, including the Wauters Prize (1964), the Mund Prize (1967) of the “Société Royale de Chimie”, the Stas-Spring Prize (1971) and the Adolphe Wetrems Prize (1975) of the “Académie Royale de Belgique”, the Rosetta Briegel-Barton Lectureship at the University of Oklahoma (1973), the Prize of the “Cercle of Alumni de la Fondation Universitaire de Belgique” (1980), the Ciapetta Lectureship of the North American Catalysis Society (1981), the Catalysis Lectureship of the Société Chimique de France (1993) and the prestigious Francqui Prize, B (1994), the highest honor for all Sciences in Belgium.

He was made “Officier de l'Ordre Léopold” in Belgium (1990), corresponding Member of the “Académie Royale des Sciences, des Lettres et des Beaux Arts de Belgique” (1991), member of the “New York Academy of Sciences” and Associate Member of the “European Academy of Arts, Sciences and Humanities”. He was conferred Doctor Honoris Causa, Technical University of Lisbon (1996).

Eric Derouane attracted many students and scholars to his laboratories in Namur, Liverpool and Faro. His energy, his clear mind and his broad knowledge impressed his students, researchers and colleagues. He was an outstanding and demanding professor, always ready to share his knowledge with his students. His courses were always clear, highly structured and easily understandable. Many of his former students and post-docs occupy today prominent positions in universities and industries. All of them will remember his brilliant and rigorous scientific approach, and no doubt they all will greatly miss him.

Jacques C. Védrine, Michel Che, Paris
Fernando Ramôa Ribeiro, Lisboa
Jianliang Xiao, Liverpool
Bao-Lian Su, Namur
23 April 2008