



NEWSLETTER

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Harry Marsh, 1973, in the optical microscopy laboratory, Newcastle University



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Editorial

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This issue of the BCG newsletter is dedicated to the late Harry Marsh

Professor Harry Marsh 1926-2023

Professor Brian Rand, Emeritus Professor, University of Leeds

Harry Marsh, Emeritus Professor of Chemistry at The University of Newcastle passed away peacefully on 25 September 2023. He is survived by his wife Audrey, his two children Rosalind and Alistair and grandchildren.

From the nineteen sixties through to the early 21st century he was one of the most important figures in the field of carbon materials science and chemistry. His work covered many of the important aspects of the subject at the time and he leaves a substantial legacy of published work comprising some 250 articles in refereed journals another 250 or so of conference proceedings and 6 edited or co-edited books, all involving some 190 co-workers, many international. This body of work to date has attracted some 8264 citations in 6279 documents

(SCOPUS) and a number of prestigious awards. The George Skakel Memorial Award, from The American Carbon Society, was awarded in 1982 in recognition of his role as an outstanding educator and his numerous contributions to the understanding of coal carbonization and the gasification reactions of coke and carbon; The Joseph Becker Award, by the Iron and Steel Society of the American Institute of Mechanical Engineers, was for distinguished achievement in the field of coal carbonization, and the George D. Graffin Award, also awarded by the American Carbon Society, was in recognition of significant ability as a lecturer and communicator in the general area of carbon science. In addition, he was awarded life memberships of the DKG (The German Ceramics Society) and The Coal Research Forum of the United Kingdom. In 2006 he received the Lifetime Achievement Award by the British Carbon Group in association with the Royal Society of Chemistry, The Institute of Physics and the Society of Chemical Industry. It was in recognition of his outstanding contribution to Carbon Science over a period of about 60 years and is an award that he particularly cherished.

Harry began his research career under the supervision of Prof Lord Wynne-
College, University of Durham, later to become Newcastle University, on the structure of coal.

Carbon and Graphite

Carbonization theory of coals, pitches, resins and woods.

Adsorption and surface chemistry: porosity and surface functionality of coals, activated carbons and graphites.

Gasification/oxidation/Hydrogasification: kinetics and surface topography of gasification by oxygen, carbon dioxide, hydrogen and atomic oxygen.

Structural analyses by X-ray and electron diffraction, optical texture, transmission electron microscopy and scanning electron microscopy.

Composites: including metallurgical cokes, carbon-fibre systems, including carbon-carbon brakes.

attracted students from all corners of the globe and he had many friends and colleagues with whom he collaborated. He spent many summers in the laboratories of Prof. PL Walker of Penn State University and his other main interactions were with Prof. Isao Mochida of Kyushu University in Japan, with Prof. Federico Rodriguez-Reinosos of Alicante University and with Dr Rosa Menendez of INCAR (Oviedo). He was an outstanding teacher and communicator of his research findings and was greatly loved and respected by his many students and collaborators who will remember him with affection.

*Harry Marsh with Stanislaus ("Stack") Mrozowski
(The 'father' of nuclear graphite research)*

Professor Harry Marsh : Personal Thoughts

Dr Steve Ragan, Senior R&D Adviser, Jacobi Carbons Group

gaps of old age, so any dates are a matter of guesswork as I have got rid of most of material relevant to this memoir, first when I retired and then after I moved house. What follows comes from an increasingly misty past. I did have a tenuous early link with carbon but not with Harry by my PhD studies underneath the aegis of Prof A R Ubbelohde in the Chemical Engineering Department of Imperial College. Although I worked in the Carbon gaged on graphite research like my colleagues, although a lot of what they were doing must have entered my thinking by a sort of process of mental osmosis. I left there in 1960 to work in the research labs at Fulham of the nationalized Gas Industry. Most of my work there was related heterogenous catalysis in which carbon generally plays little part except as a ***** nuisance (I hope Steve

As ever, times change. Oil is now in abundant supply, realization of the deleterious effect of CO₂ emissions is now well-

something that would have caused Harry great satisfaction.

Harry subsequently invited me to

that was something of an honour, the other members being people like Dr Joe Gibson who had been director of research for the NCB. The NCRL was nominally part of the Department of Chemistry of Newcastle University so Prof. David Whiffen as head of the department was also involved. David was a distinguished physical chemist but I suspect that he would not have included coal science as one of his scientific interests, so the relations between him and Harry must have been interesting when it came to sharing out Departmental revenues. Harry

in attracting funding from both the UK and overseas. Many distinguished scientists from all over the World beat a path to the door of his laboratory.

realization that Britain needed a much stronger scientific base to support its industries. Coal was of course one of them at that time and the new journal had the backing of the foremost academic fuel technologists. The successive oil crises of the 1970s put coal back in the forefront of thinking about energy matters and Harry with

In summary, the ACS Fall 2023 San Francisco conference was a great and enjoyable experience. I benefitted significantly from the networking opportunities, interesting talks and the chance to present and discuss my

the performance of graphite in the UK advanced-