

Obituary

Chris Breen, 1955–2018



World-renowned applied clay scientist, Professor Chris Breen, passed away on 12 February 2018 in Sheffield (UK). He was born on 20 January 1955 and raised in Liverpool. Chris obtained his degree in Chemistry and his PhD at the University of Wales, Aberystwyth, in 1976 and 1980, respectively. He held the post of Staff Demonstrator in Physical Chemistry at the University of Exeter from 1979 to 1981 when he moved to a lectureship in Physical Chemistry at Dublin City University, Ireland, where he was integral in setting up the BSc (Hons) degree in Analytical Science. Chris stayed in Dublin for six years before returning to the UK to take up a senior lectureship at Sheffield City Polytechnic (now Sheffield Hallam University) in 1987 and specializing in physical chemistry, catalysis and analytical techniques. Chris joined the Materials and Engineering Research Institute (MERI; formerly the Materials Research Institute) in 1992, was promoted to Principal Lecturer in 1999 and took up a

personal Chair in 2002. Chris was also MERI's Technology Transfer Coordinator until 2000. He was appointed Head of Research Centre in 2004 and was responsible for the Polymers, Nanocomposites and Modelling Research Centre.

Professor Chris Breen's research activities were concentrated on clay–organic complexes for almost 40 years. He was introduced to the topic at an early stage and knew instinctively that it was the area for him. Environmentally friendly clay catalysts were an early fascination, followed by the adsorption of pollutants and polycation–clay complexes. Chris successfully transferred this expertise into the production, characterization and use of clay-based polymer nanocomposites. The work on sustainable packaging based on biopolymer–clay nanocomposites led to a spin-out company being formed in Sweden, and the move into biomedical applications produced two more patents together with colleagues at MERI and the Biomedical Research Centre. Towards the end of his career, he became an expert in clay–polymer nanocomposites, having explored several applications including barrier packaging, automotives, shape memory polymers, fire

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retardancy and wound dressings. Professor Chris Breen published about 80 papers and four patents, and gave invited lectures at many conferences. He helped to train >20 PhD students.

He was able to share his love of research with numerous friends around the world and was recently engaged in a number of collaborative EU projects involving a significant number of universities, research institutes and industries. Chris was a Fellow of the Mineralogical Society and had been an Associate Editor of *Clay Minerals* for 20 years (1996–2016). He chaired the Clay Minerals Group of the Mineralogical Society (2004–2007) and was elected as President of AIPEA, the International Association for the Study of Clays (2009–2013), and continued to serve AIPEA as Past President (2013–2017) until the International Clay Conference 2017 in Granada, Spain.

Chris was really a gentleman of extraordinary kindness and an exceptional speaker. Many people

still remember when, with a few sentences, he opened the hearts of the XIV AIPEA General Assembly in Bari, Italy. At conferences and workshops, he presented his material in such a way that you were spellbound, fascinated, and he was able to build up an 'arc of suspense'.

AIPEA expresses its gratitude for Chris Breen's warm cooperation and joins the international community in this plain tribute, sending sincere condolences to his wife, Catherine, their four sons, John Jo, Daniel, Dominic and Alastair, and their grandchildren.

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REINER DOHRMANN
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PETER KOMADEL
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