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John Barker, Ron Cappelletti & Heather Chen-Mayer

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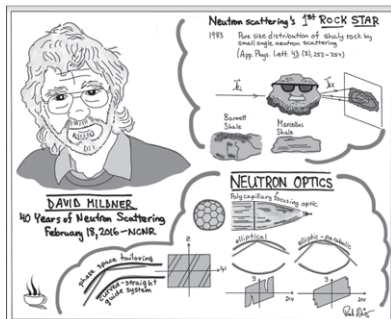
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In Memoriam: David Mildner

David Mildner, 76, died on December 5, 2020, after a prolific career in neutron scattering that featured 155 journal articles with over 2400 citations. His areas of expertise spanned neutron optics, instrument design, and small angle neutron scattering (SANS) of porous materials. Raised in Wimbledon, England, David won a scholarship to read Physics at Worcester College, Oxford, where he graduated in 1966. Shortly thereafter, David immigrated to the US to be near his parents and five younger siblings who had immigrated to Midland, Michigan, in 1961. He earned his Ph.D. in nuclear engineering at the University of Michigan, where he had access to a 2 MW reactor, a 14 MeV neutron generator, and a time-of-flight diffractometer.

He returned to the UK in 1973 to join the Science Research Council at the Rutherford Laboratory, where he worked on the 5 kW Harwell electron LINAC developing instrumentation and techniques using pulsed neutron sources. He was responsible for moderator and reflector design and estimation of thermal neutron fluxes for a proposal that was important input into what became the ISIS neutron source.

In 1977, David went back to the US and took a position at the University of Missouri's 10 MW research reactor as an instrument scientist for both the SANS and powder diffrac-



Cartoon drawing by Robert Dimeo

tometers. He was also a regular consultant to the Intense Pulsed Neutron Source (IPNS) at Argonne National Laboratory. In 1989, he joined the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland, to work at the 20 MW research reactor on neutron focusing lenses using capillary optics. In 2005, he became the instrument scientist for the newly commissioned ultra-small angle neutron scattering instrument with which he coauthored numerous articles on porosity in rocks. Combined with some of his earlier work from 1983, this earned him the local designation as “neutron scattering’s first rock star.”

David enjoyed traveling, and with a NATO grant he visited eminent colleagues at the Kurchatov Institute in Moscow and the Joint Institute for Nuclear Research in Dubna. He also performed neutron optics measurements at the French national

lab CEA at Saclay near Paris and did work at the ILL in Grenoble, France.

David was a good mentor and an exemplary gentleman and scholar. He was gently opinionated but never overbearing. He despised pompousness and admired those who were “above it all.” Snippets of his sound advice included *You may disagree, but you don't have to be nasty, stop talking, put it down in writing, and Just quietly get on with it.* He also liked to be a thorn in the side of management in a productive way. He was an avid rugby referee for many years and enjoyed hearty political exchanges at the daily afternoon espresso gatherings at the NCNR. His self-described political views were—“conservative in financial matters, socialist on domestic issues, and liberal in foreign affairs.”

David is survived by Maryanne (née Schinell), whom he married in 1995; his adopted sons, John and Jefferson from his first marriage to Shelly Ann Hobson; and his siblings Susan, Rosalind, Peter, Helen, Felicity and Gerard.

JOHN BARKER¹ AND RON
CAPPELLETTI¹

HEATHER CHEN-MAYER²

¹NIST Center for Neutron Research,
Gaithersburg, Maryland, USA

²NIST Material Measurement,
Gaithersburg, Maryland, USA