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Ruep Lechner (1938-2019)

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A. D. B. Woods (1932–2019)

D. B. (Dave) Woods was born and raised in Newfoundland. His undergraduate studies were at Memorial University, Newfoundland, leading to undergraduate degrees from Dalhousie University in Nova Scotia and a PhD from the University of Toronto. In 1957, he began his career at Atomic Energy of Canada (AECL) at Chalk River for which he received international recognition.

His achievements in neutron inelastic scattering at the NRU reactor included a series of seminal papers on the lattice dynamics of alkali halides, the lattice dynamics of transition metals, and work on spin-wave excitations in the rare-earth metals



Holmium and Erbium. He is especially well-known for his extensive measurements on the excitations in normal and superfluid He⁴, which he obtained over the years starting in 1960. With colleagues in Grenoble,

he made the first measurements on the excitations in the Fermion system. He³.

He was branch head of Neutron and Solid State Physics from 1971–79 and then became a special advisor to the vice-president for strategic planning at AECL. He was elected to the Royal Society of Canada in 1982 for his contributions to neutron scattering. He loved music, literature, travel, tennis, and badminton and took great pride in his family and their history in Newfoundland. Dave Woods retired in 1989.

Thomas M. Holden Chalk River National Laboratories, Deep River, Canada

Ruep Lechner (1938–2019)

Ruep Ekkehard Lechner died on April 2, 2019 at the age of 81. Ruep was a pioneer of time-of-flight spectrometry and made a considerable mark at the ILL during his time with us from 1970 to 1978. He was one of the rare scientists of his time with experience in such timeof-flight machines and neutronics, thanks to the 4 years he spent at the Argonne National Lab in Illinois after his studies in Vienna. With this experience, he was able to build the first IN5 at the ILL with François Douchin (engineer), Yvon Blanc (technician) and José Dianoux and Ferdinand Volino (scientists).

It was thanks to IN5, which was already the best time-of-flight machine of its time, that Ruep was able to prove the existence of the elastic incoherent structure factor, a signal linked to the geometry of atomic and molecular movements. In this



way, he made a great contribution to the understanding of materials and opened a new field in chemical physics.

After teaching at the Université de Rennes (France), Ruep carried on his career at the HMI (today's HZB) in Berlin, where he built the NEAT spectrometer. Despite the difference in power of the Grenoble and Berlin reactors, he managed, with the expe-

rience he had gained at the ILL, to achieve performances with NEAT equal to those of the original IN5. He devised a number of very original experiments, such as those coupling neutron scattering and laser pulse photo-induced dynamics.

Ruep became a consultant for the ESS after his retirement in 2003 and worked on the basics of the future Miracle spectrometer.

As an Austrian, he was generally considered to be reserved and cultured, but Ruep was also very well-liked by all who were fortunate enough to work with him. He was one of the pioneers who built the ILL.

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