

on nuclear targets. It had been realized that studies of these strangeness-exchange reactions, which convert a neutron into a Λ to produce a hypernucleus, were becoming feasible at CERN and Brookhaven. At a summer study meeting on nuclear and hypernuclear physics with kaon beams, held at Brookhaven in 1973, Dover presented a comprehensive survey of the kaon-nucleus interaction. This talk—and all the many talks he was invited to give—included a synthesis of previous work, identification of open problems, and some original work in the form of calculations directed towards the next round of experiments. At the next Brookhaven summer study in 1976, Dover expounded on the uses of the weakly absorbed K^+ meson as a probe and on the use of the (K^-, K^+) reaction to produce $\Lambda\Lambda$ and Ξ hypernuclei.

In 1977, he began a lifelong collaboration with Avraham Gal, highlighted by an analysis of the first Brookhaven experiment to study the (K^-, π^-) reaction on carbon-12. In 1980, Dover and his colleagues published an influential paper on the possibility of using the (π^+, K^+) reaction to produce high-spin states in Λ hypernuclei. The predictions were confirmed in BNL and KEK experimental results.

Dover also led efforts in model calculations of dibaryon production in strangeness-changing nuclear reactions and in heavy-ion reactions. He was heavily involved in a large collaboration to search for strangelets (long-lived, multi-quark systems with a high strange quark content) produced in relativistic heavy-ion collisions at the AGS.

Dover also looked at nucleon-anti-nucleon interactions and had a strong influence on the experimental program at LEAR. He made lasting contributions to the study of $N\bar{N}$ potentials and to the general understanding of the $N\bar{N}$ annihilation process.

Carl was a member of the Nuclear Science Advisory Committee (1988–91) and held several offices, including chairman, in the division of nuclear physics of the American Physical Society. He was a member of many editorial boards, including that of *Physical Review C*.

In addition to his considerable impact on physics, Carl projected to those around him his sense that life was worth living, that all problems had a solution and that he frequently wished to be a part of the solution. He was an excellent chess player and a devoted jogger. Carl's determined effort to participate in meetings and deliver talks during his extended final illness was quite remarkable. His enthusiasm for physics and his cheerful demeanor will

be sorely missed, at BNL and in the international physics community.

**PETER D. BOND
SIDNEY H. KAHANA
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Melvin H. Mueller

Melvin H. Mueller died of heart disease in Elmhurst, Illinois, on 28 June 1996. Mel, as he was known to all his friends, was born on 22 February 1918 in Spencer, Iowa, received a BA in 1940 from the University of Northern Iowa and earned a PhD in chemistry from the University of Illinois in 1949. After several years at Deere & Co, the US Rubber Co and the University of Illinois, he joined the Argonne National Laboratory in 1960; he was a senior scientist at Argonne when he retired in the mid-1980s.

Mel was very active in actinide structural research and made many significant contributions to powder diffraction methods. One of them, his 1960 least squares program for lattice parameter determination, written with LeRoy Heaton and K. T. Miller, is still highly regarded and widely used. He also collected the first set of single-crystal neutron-diffraction data on the CP-5 reactor, in collaboration with Sid Sidhu and Stan Simonsen. His knowledge of the numerous uranium phases, including anisotropic grain growth in bulk uranium, led to phase characterization of the uranium silicides.

Mel also made numerous major contributions to a variety of scientific organizations. In all of them, his was a voice of reason and compassion in difficult situations. He served tirelessly as secretary of the American Crystal-

lographic Association from 1973 to 1975. He was later appointed to the American Institute of Physics Governing Board, serving from 1981 to 1987, and also being a member of its executive committee in 1985–86.

His work on the Metals and Alloys Subcommittee of the International Centre for Diffraction Data (ICDD) resulted in the third edition of the *Metals & Alloys Search Manual* (1994, ICDD, Swarthmore, Pennsylvania) being always current and available in a form that is most useful for both newcomers and those more experienced in the field. Mel chaired the Grants-in-Aid Committee of ICDD from 1989 to 1993, a period when the number of grant recipients, especially from overseas, increased significantly, largely thanks to Mel's efforts.

In retirement, Mel continued a successful collaboration with his Argonne colleagues on a wide range of alloy systems. In addition, he served on the board of directors of the ICDD, 1991–95, as well as on a number of its committees.

Mel's positive attitude toward life and its challenges earned him a host of lasting friends. They will long remember him as a fine scientist, an enthusiastic collaborator and a compassionate human being. He will be sadly missed.

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Peter Weinzierl

Peter Weinzierl, a distinguished Austrian physicist, died in Vienna on 10 May 1996 at the age of 73. At the time of his death, he was professor emeritus in the faculty of natural sciences at Vienna University.

Peter was born on 31 March 1923 in Vienna. After having been badly wounded in World War II, he switched from chemistry to physics and graduated in 1949 with a PhD from Vienna University. In 1952, he joined the National Bureau of Standards (now the National Institute of Standards and Technology) near Washington, DC, where he worked in nuclear electronics. There he developed the precursor of the constant fraction pulse-height discriminator (CFD), a standard instrument in nuclear electronics nowadays.

In 1958, Peter acquired the habilitation (qualification) for nuclear phys-



MELVIN H. MUELLER

ics at Vienna University. In 1960, he became head of the Physics Institute at the Austrian Nuclear Research Center in Seibersdorf. Of particular importance at that time were two major experiments conducted at his initiative and under his supervision: the measurement of the decay properties of the free neutron and the search for parity violation effects in nuclear transitions.

After Peter became a full professor at Vienna Technical University in 1965, I became an assistant professor under him, and he invited me to coauthor the *Lehrbuch der Nuklearelektronik* ("Textbook on Nuclear Electronics," Springer-Verlag, 1970).

In 1967, Peter returned to Vienna University, where he was appointed head of the Institute for Experimental Physics. Term after term, Peter served as head of this institute until, after 25 years, he resigned just before retirement.

From his initial interests in nuclear electronics and nuclear physics, Peter moved on to liquids, studying them with nuclear probes and laser techniques and eventually using computational physics to elucidate the microscopic structure and dynamics. As a result, the institute has a very active group of computational physicists. He also investigated metal-hydrogen systems as early as 1970, using the inelastic neutron scattering technique. The technology of energy storage by such systems intrigued him very much. As a logical consequence, he got involved in the materials science associated with future fusion reactors.

In his later years and into his retirement, Peter concentrated on solid-state physics performed on the Austrian neutron scattering apparatus at the French research center in Saclay (Paris). The installation of this instrument was made possible by Peter's scientific competence and skills in negotiating a favorable contract between the Austrian Academy of Science and the French Commissariat of Atomic Energy.

Both as a teacher and as a supervisor, Peter was an example of singular decency; he impressed us all with his unmovable impartiality and friendly noblesse.

Although Peter's ability to get to the root of a scientific problem with apparent ease made him successful as a scientist, I and many other colleagues valued his human qualities even more. He cared not only for each individual, but for mankind as a whole. So he supported the efforts of the *Bulletin of the Atomic Scientists* and played a full part in the Pugwash movement.

MANFRED DROSG
Vienna University
Vienna, Austria

Peter Csavinszky

Peter Csavinszky, long associated with the University of Maine and known for his work in atomic and solid-state physics, died peacefully at his home in Old Town, Maine, on 31 December 1995.

Born in Budapest, Hungary, in 1931, Csavinszky received an undergraduate degree in chemical engineering from the Technical University of Budapest in 1954 and then began his graduate studies in physics at the university's institute of physics. After leaving Hungary in 1956, he moved to Canada, where he earned his PhD in physics in 1959 at the University of Ottawa. Subsequently, he held a two-year postdoctoral fellowship at the National Research Council of Canada.

Csavinszky then came to the US, where, over the next 11 years, he worked as a physicist successively at Hughes Aircraft, General Dynamics, Texas Instruments and TRW Systems.

In 1970, Csavinszky joined the department of physics and astronomy at the University of Maine as an associate professor, and was promoted to full professor in 1975. He remained there until he died. At Maine, he developed an international reputation for his research in atomic physics (especially on the Thomas-Fermi equation) and solid-state physics (especially on impurity ion scattering). He was particularly known for applying variational principles to these physical problems.

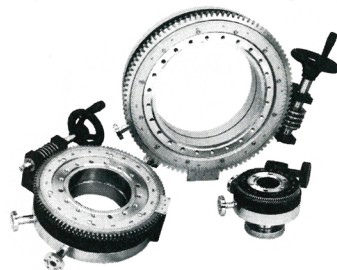
He was active in the New England section of the American Physical Society, and served as its vice chairman (1987-88), then chairman (1988-89) and continued as section advisor (1989-90).

One of us (Oyoko) recalls how Csavinszky would diligently go over the details of every calculation made by his graduate students. He was demanding of his students but extremely fair and helpful. He required them to write papers and give presentations at meetings. At those meetings, he always made a point of introducing his students to his famous acquaintances.

In addition to his interests in physics, Csavinszky was a glider pilot, enjoyed travel (especially to physics meetings) and was an avid reader of military history. He will be missed by his colleagues, friends and students.

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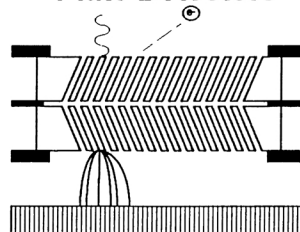
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