obituaries

1956. During the war he acted as advisor to the Inter-Services Research Bureau where he was particularly concerned with the degaussing of ships. Bates is best known for his work on the magneto-thermal effects accompanying magnetization of the rare earths during the late 1950's and early 1960's before his retirement in 1964.

Wilhelm Westphal

On 5 June 1978 Wilhelm Westphal, professor and senator emeritus at the Technical University, Berlin, died in his 97th year. He belonged to an elite of physicists in Berlin, an intimate scientific and social circle which included the names of Albert Einstein, Max Planck, Max von Laue, Gustav Hertz and Walther Nernst.

The descendant of a long line of Hamburg senators, Westphal completed his secondary education in Hamburg and then studied physics at the Universities of Bonn, Munich and Berlin. He received his doctorate at the University of Berlin in 1908, working with Rubens in the field of heat radiation, an activity which he continued for several years as Ruben's assistant. Military service during World War I interrupted his academic career from 1914 to 1918. Subsequent to his return to Berlin, he received there an appointment as a.o. Professor of Physics. After several years of teaching and consulting at the Prussian Kultus Ministerium, he was named Professor of Physics, simultaneously with Gustav Hertz, at the Technische Hochschule Berlin in 1928. Here, Westphal's main task was to create an "Anfänger Praktikum" (undergraduate physics laboratory) along novel ideas he had developed. He succeeded admirably with an outlay, teaching methods, and choice of subjects which served as model for many other institutes. He taught at the Technische Hochschule (renamed "Technical University" after World War II) well past the age of normal retirement.

Westphal is best known as the outstanding author and editor of a large number of textbooks and reference works. His *Physik*, which first appeared in 1928, has seen at least 24 editions, providing for more than four decades a comprehensive, clear and always updated exposition of general physics for the undergraduates of many universities. A condensed text of physics is called in its English translation *A Short Textbook of Physics*. Intended for a much broader public than physicists, it is presented at the proper level of mathematics, yet with eloquent precision. The ideas and experiences he gathered as director of the undergraduate laboratory form the basis of his *Physikalisches Praktikum*, a book on the theory and practice of instruments and measurements. Westphal was no less prolific as an editor. Among many other reference series, he edited Volumes XII–XVII of the *Handbuch der Physik* in its first edition, for many years also the collection *Die Wissenschaft*, and the encyclopedia *Physikalisches Handwörterbuch*.

Throughout his long life, Westphal had a sustained interest and concern on the didactic side, the methods of teaching and disseminating, of the ever-deepening and expanding substance of physics. The appeal to the broad public is reflected in a number of short monographs. Perhaps the most representative example is the booklet *Deine Tägliche Physik* (*Your Daily Physics*), which describes with droll humor how laws of physics reveal themselves in everyday life. A new edition appeared in 1978. Westphal was still creative in his nineties.

Westphal was always a helpful friend, not only a teacher, to his many students. He involved himself, perhaps more than anybody else, in the scientific and social events of physics and physicists during his many years in Berlin. There were the musical evenings with Planck and Einstein, the chess matches at his home for physicists, the excursions with the faculty and students, the debates within the circle of Berlin physicists on the great events of physics as they evolved.

Those who know him will always remember him as a great teacher and human being.

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Edward Felix Turner Jr

Edward Felix Turner Jr, head of the physics department of Washington and Lee University since 1961, died 30 September at the age of 58. After graduation from high school in Waynesboro, Virginia, he received both BA and BS degrees from Washington and Lee in 1950. He earned his MS degree in physics from MIT and his PhD degree in physics from the University of Virginia. He joined the Washington and Lee faculty in 1957 after three years on the faculty at George Washington University. He became full professor in 1959 and was named head of the physics department two years later.

Turner's research interests included computer technology, and he was extensively involved in the development of a computer center at Washington and Lee. In 1967–68 he carried out pioneering research for the US Office of Education on the implications of modern technology for small-college libraries.

Turner was president of the Virginia Academy of Science in 1971–72 and was elected a Fellow of the Academy in 1975. □