



Rydberg Centennial Conference

A memorable conference on atomic spectroscopy was held at the Physical Institute of the University of Lund in Sweden on July 1-5, 1954. This conference was arranged to commemorate the centennial of the birth of Johannes Robert Rydberg who spent most of his life in Lund, first as a student, then as professor of mathematics and physics and many years as Director of the Physical Institute of the University. His classical paper "On the Structure of Line Spectra of the Chemical Elements", published in 1889, was so original, fundamental, and heuristic that it must be regarded as the actual beginning of modern spectroscopy. Notwithstanding the imperfect data at his disposal, Rydberg discovered most of the basic properties of spectral series. He intuitively used wavenumbers instead of wavelengths, introduced the concepts of spectral series and limits, invented a universal constant that will forever bear his name, discovered that spectral-series terms are functions of successive integers, and sought to connect certain properties of atomic spectra with positions of the atoms in the periodic system. These epoch-making activities of Rydberg were very appropriately reviewed for the Centennial Conference by Niels Bohr and by Wolfgang Pauli.

The Conference was crowded with eight half-day sessions of contributed papers dealing with almost all phases of atomic spectroscopy: series in line spectra, spectroscopic ionization potentials, descriptions and analyses of complex spectra, hyperfine structures and nuclear moments, isotope shifts, theory of atomic spectra and electron-configuration interactions, interferometers and diffraction gratings, special spectroscopic light sources, spectral-line intensities and transition probabilities, Stark effect, selected problems in astrophysical spectroscopy, and standard wavelengths culminating in proposals to redefine the meter in terms of wavelengths of light in vacuo. The transactions of the Rydberg Conference, including invited and contributed papers, will be published in *Forhandlingar Kungl. Fysiografiska Sällskapet i Lund* (Transactions of the Royal Physiographic Society at Lund).

Never before has there been such an impressive program of papers on fundamental research in spectroscopy, nor such a large assemblage of illustrious spectroscopists. Eighteen nations were represented in the Rydberg Centennial Conference which was sponsored and supported (in part) by the International Union for

Pure and Applied Physics. In fact this was the first great international conference on physics to be held on Swedish soil. Its supreme success must be credited mainly to the careful planning and meticulous arrangements of the local Organizing Committee headed by Bengt Edlén, director of the Physical Institute of the University of Lund.

Delightful entertainment features of the Conference included an excursion on June 30th to see a solar eclipse (which unfortunately was obscured by clouds), and a July 4th excursion to the Isle of Ven to view the recently excavated remains of the observatory erected in 1575 by Tycho Brahe who there made the observations which led to Kepler's laws of planetary motion.

The Joint Commission for Spectroscopy, representing the Unions of Physics and of Astronomy, was created in 1950 under the auspices of the International Council of Scientific Unions (ICSU). In 1952 it met in Rome during the 8th General Assembly of the International Astronomical Union, and in 1954 it met in Lund between certain sessions of the Rydberg Centennial Conference. This meeting of the JCS was again sponsored by the ICSU. The Joint Commission discussed reports On Collecting Data of Atomic Spectra, On Nomenclature for Spectra of Polyatomic Molecules, and On the Exchange of Research Problems. The Transactions of the Joint Commission for Spectroscopy will be published as before in the *Journal of the Optical Society of America*.

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Fluid Dynamics

The Fluid Dynamics Division of the American Physical Society is meeting November 22-24 at Langley Aeronautical Laboratory, Langley Field, Virginia, and at the Hotel Chamberlain, Old Point Comfort, Ft. Monroe, Virginia. The meeting will feature several invited papers, including one by Hugh L. Dryden entitled "Fifty Years of Boundary Layer Theory and Experiment", and a large number of contributed papers on turbulence, boundary layer theory, and aerodynamics. There will be an opportunity to visit the NACA Langley Aeronautical Laboratory on November 24 and Williamsburg either on Thanksgiving Day or the weekend preceding the meeting. Anyone wishing to attend should notify Dr. Joseph O. Hirschfelder, Secretary, Fluid Dynamics Division, P.O. Box 2127, Madison 6, Wisconsin.

Computer Clinic

The First Electronic Computer Clinic, a lecture and demonstration course on digital and analog computers designed for scientists, engineers, management personnel, and others who contemplate using computers, will take place in New York City from November 30 through December 2. The clinic will be held at the