

# SCIENCE EDUCATION

## *Quantum Chemistry and the Solid State*

The Quantum Theory Project of the University of Florida, in collaboration with the Quantum Chemistry Group of the University of Uppsala, is arranging a second Winter Institute in quantum chemistry and solid-state physics, to be held under the direction of Per-Olov Löwdin. It will be similar to the Institute given last year and will again be supported by the National Science Foundation. A preparatory week (December 4-9), intended for those who want a "warming-up" period, will precede the main part of the Institute. It will be followed by an introductory course for beginning and advanced students (December 11-30), which will be devoted mainly to a study of the mathematical and conceptual structure of modern quantum theory of the electronic structure of matter (atoms, molecules, and crystals in their stationary states). The advanced course (January 2-13) is meant for experimentalists and theoreticians doing research in fields where the methods of quantum chemistry and solid-state physics are essential. The preparatory week and introductory course will be held on the campus of the University of Florida in Gainesville; the advanced course will be held on Sanibel Island in the Gulf of Mexico near Fort Myers.

Further information and application forms can be obtained from the Director, Winter Institute in Quantum Chemistry and Solid-State Physics, Department of Chemistry, University of Florida, Gainesville, Fla. A limited number of stipends to defray tuition, travel, and living expenses has been made available by the NSF. Priority for stipends and admission (space is limited) will be given to those who apply before November 10.

## *Academic Leave for Industrial Scientists*

Four Westinghouse scientists have been granted leave of absence under a "professional-enrichment" program established by the Central Research and Development Laboratories of Westinghouse Electric Corp. in Pittsburgh, Pa. Under the plan, entitled the "Westinghouse Academic Leave Program", outstanding professional personnel at the Laboratories are permitted to carry out individually planned research and study at any university or nonprofit institution of their choice in the world. Successful candidates are granted academic leave with maintenance of current salary for periods up to one year. According to S. W. Herwald, Westinghouse vice president for research, "The program is not intended simply as a means of completing education toward an advanced degree. Nor is it intended as a training program to improve administrative skills. Rather, it is designed to broaden the view-

point and experience of our top scientists and engineers by bringing them into contact with outstanding people, institutions, or facilities wherever they may exist in this country or abroad."

The first scientists named in the new program are. B. S. Chandrasekhar, who will become a visiting scientist at Imperial College, London, England; Kan Chen, who will do research in systems engineering at Stanford University; Donald P. Gaver, who will also go to Stanford as a visiting professor to teach and do research in probability theory and statistics; and Stanley L. Ruby, who will hold a nuclear-research fellowship at the Israel Atomic Energy Commission's research reactor and at the Weizmann Institute in Rehovoth.

## *PSSC Films Available*

The list of available films which form part of the Physical Science Study Committee's high-school course now numbers 43, with five more currently in production. The films are produced by Educational Services Incorporated of Watertown, Mass., a nonprofit organization, which administers the PSSC course, and are distributed by Modern Learning Aids, a division of Modern Talking Picture Service, Inc., 3 East 54 Street, New York 22, N. Y.

The films feature demonstrations by university teachers and industrial scientists. Running times range from seven to 33 minutes. They may be purchased at prices ranging from \$40 to \$300, or they may be rented for three- or eight-day periods from one of Modern Learning Aids' 30 film libraries. Titles now available include: *Time and Clocks*; *Short Time Intervals*; *Long Time Intervals*; *Measuring Large Distances*; *Measuring Short Distances*; *Measurement*; *Change of Scale*; *Straight Line Kinematics*; *Vectors*; *Definite and Multiple Proportions*; *Elements, Compounds, and Mixtures*; *Crystals*; *Behavior of Gases*; *Introduction to Optics*; *Pressure of Light*; *Speed of Light*; *Simple Waves*; *Forces*; *Inertia*; *Inertial Mass*; *Falling Bodies*; *Deflecting Forces*; *Periodic Motion*; *Frames of Reference*; *Universal Gravitation*; *Elliptic Orbits*; *Energy and Work*; *Mechanical Energy and Thermal Energy*; *Conservation of Energy*; *Coulomb's Law*; *Millikan Experiment*; *Coulomb's Force Constant*; *Electric Fields*; *Electric Lines of Force*; *Counting Electrical Charges in Motion*; *Elementary Charges and Transfer of Kinetic Energy*; *A Magnet Laboratory*; *Electrons in a Uniform Magnetic Field*; *Mass of the Electron*; *Electromagnetic Waves*; *Photons*; *Interference of Photons*; and *Franck-Hertz Experiment*.

Films now in production are *The Rutherford Atom*; *Photo-Electric Effect*; *Sound*; *Solar System—Kinematics*; and *Vector Kinematics*.