Future Physicists Win Awards

By Donald E. Cunningham and Ethel Snider

The American Institute of Physics

The Student Sections program of the American Institute of Physics has been rapidly expanding, reflecting a general growth of interest in physics. There are now 234 Student Sections in colleges and universities throughout the United States and Canada. Through association with their Student Sections, college and university physics majors gain a better understanding of what their life work as physicists will involve and obtain information about graduate-school requirements and employment opportunities.

Opportunities for Student Section members to receive an early taste of scientific research have increased greatly during the last two years, thanks to the initiation of the AIP Student Sections Awards Program, made possible by grants from the Bendix Corporation.

Under this program, cash awards (averaging $300) are made to selected Student Sections for the purpose of helping the individual Sections carry on a specific activity. Once a year, project proposals are submitted by Student Sections to a committee of physicists invited by the American Institute of Physics to serve as judges. The committee selects the projects it considers most worthy and presents cash awards to the Student Sections that submitted the winning proposals. For the past two years, there have been six cash awards each year, with four or five honorable mentions.

The third annual Awards Program is now in progress, and awardees for 1964-65 will be announced shortly after January 1, 1965. The project proposals which were selected for awards in the past are indicative of the type of projects now being considered by the judges.

Award winners for 1962-63 have submitted final reports which explain in detail the projects carried out under their grants. These reports indicate that the participants gained valuable experience in research laboratory procedure. When difficulties were encountered in projects, alternate approaches to the problem at hand were found.

The enthusiasm which the Awards Program has evoked is shown by the comments of participants. When one student was asked how he enjoyed his summer vacation and if he was ready to return to his Section's project, his reply was, "What vacation? What summer? Return? I never left!"

Several Student Sections reported that their research projects became so

AWARD WINNERS—AIP STUDENT SECTIONS AWARDS PROGRAM

1963-1964

Student Section	*Project*	*Faculty Advisers*
Johns Hopkins University	Experiments with an ultrasoft x-ray generator	R. T. Cox and Donald E. Kerr
Lowell Technological Institute	Rheological study of an air vortex apparatus	Charles R. Mingins
Montana State College	A laser project	Roy V. Wiegand
Providence College	Microwave transmission techniques to determine plasma electron density in a plasma produced by a radio-frequency plasma torch	Walter A. Murtaugh and J. E. Robertshaw
Rose Polytechnic Institute	Study of a magnetic mirror	John C. Hegarty
Spring Hill College	Construction of a helium-neon laser	Walter J. Rhein

1962-1963

Fairleigh Dickinson University	Development of new efficient transmission filters for the far infrared wavelength region	Jack Felman
University of Maryland	Construction of a radio telescope	Philip Steinberg and Gart Westerhout
Providence College	Studies with a radio-frequency plasma torch	Walter A. Murtaugh
University of Richmond	Study of radiation emitted in decay of Cl^{36}	Leonard M. Diana
St. Lawrence University	Determination of radiation in fallout	William K. Robinson
St. Procopius College	Development and use of the Pound-Knight system for detecting nuclear magnetic resonances	Rose A. Carney and John Spokas

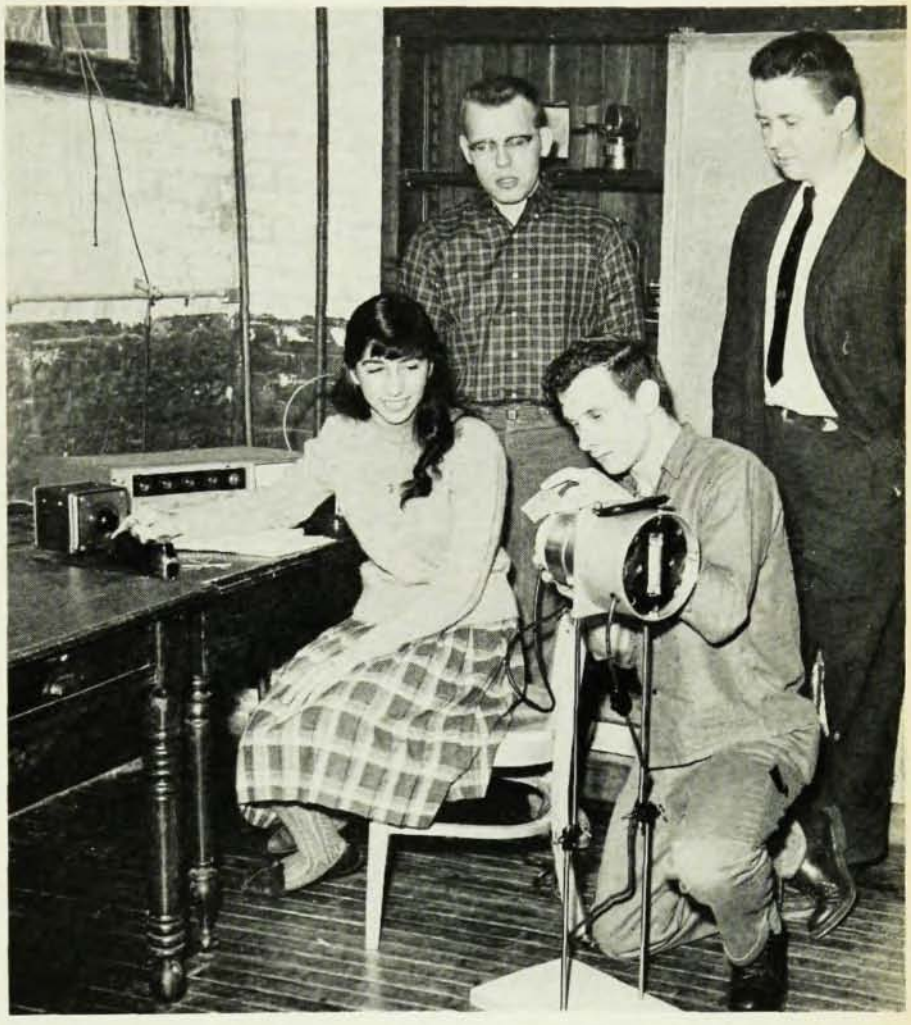
The AIP Student Section at Spring Hill College received one of the 1963-64 awards for building the helium-neon gas laser shown at left. Senior Paul Montgomery of Spring Hill discusses possible TEM modes in the laser beam.

popular that interest was stimulated among students not directly associated with the proposals.

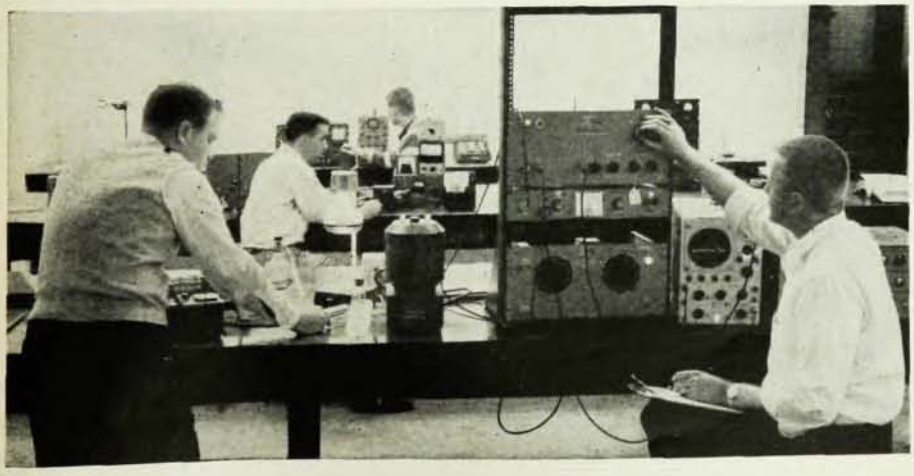
Faculty advisors of winning Student Sections devoted a considerable amount of time and energy to guiding participants toward the completion of their projects.

The physicists who served as judges for the Awards Program during the past two years also contributed greatly toward making the program a success. They are: Edward U. Condon (formerly of Washington University, now at the University of Colorado), Peter Franken (University of Michigan), George W. Hinman (Carnegie Institute of Technology), Myron A. Jeppesen (Bowdoin College and National Science Foundation), John K. Major (Western Reserve University), Walter J. Rhein, S.J. (Spring Hill College), and Robert S. Shankland (Case Institute of Technology).

The future physicists who have had the good fortune of participating in research under a Student Sections Award Program grant not only have experienced the excitement of adding to knowledge in their chosen field, but have made contributions to the physics departments of their colleges by building useful equipment for future teaching or research.



Members of the 1962-63 award-winning Section at St. Lawrence University are shown above with apparatus for determining radioactivity in fallout.



Physics students at the University of Richmond (left) received award for their study of chlorine-36 decay.