technology is advancing so rapidly, say these physicists, that commercial suppliers are now able to make negative ion sources and quote prices according to the number of fractional milliamperes desired. And for such work as solid-state damage studies or neutron physics, where the source can be a major problem, one needs beams of high intensity.

But it is a mistake, they point out, to say that current is the only factor for all people. Some workers, such as those in charged-particle physics, are interested in a given voltage and not in extra current, which may cost an additional $125 000. In many places, therefore, and particularly in a university, where emphasis is on charged particles and operating expenses are severely limited, other systems of particle acceleration may be preferred.

Daddario Urges Societies to Volunteer Technical Advice

Congressman Emilio Daddario (D-Conn.), chairman of the House Subcommittee on Science, Research and Development, wants the scientific societies to step forward and help Congress assess the impact of science and technology on national problems. This is not the first time Daddario has sought the assistance of scientific societies, but in recent months he has once more, and with particular stress, repeated his plea for the authoritative technical advice that scientific councils can provide.

In a recent address before the National Association of College and University Business Officers, the congressman noted, "There is one important source of advice to the Congress which I do not believe has been sufficiently tapped. I refer to the professional society. . . . We believe there is no limitation to the extent to which professional technical societies may communicate with Congress. . . ."

It is known from congressional studies, however, that scientific groups are generally loath to communicate with Congress for fear of losing their tax-exempt status. Section 1.501(c), paragraph 3, of the Internal Revenue Code contains the limitation that no substantial part of a scientific organization's activities may be for carrying on propaganda, or otherwise attempting to influence legislation. And at least one society president has noted that although there are times when his society could be a definite aid to Congress, the society's legal counsel has cautioned against such action as a general rule.

DADDARIO: "If the societies do not, in fact, involve themselves in problems of our society—then I wonder what real value these societies have."

In an interview with PHYSICS TODAY, Daddario stressed that there is a world of difference between lobbying and giving advice to Congress. "I am not advising the societies to fly in the face of the Internal Revenue Service," he said. "But if they mistakenly feel the IRS prevents them from giving expert advice to Congress—if the societies do not, in fact, involve themselves in problems of our society—then I wonder what real value these societies have.

"Scientific organizations ought to do more than merely discuss problems among themselves. They ought to get to the point where they make some strong recommendations on issues to which their technical competence has particular relevance. It is becoming harder for us in Congress to know where the information is.

"Societies interpret the Internal Revenue Code only in the strictest sense. But is it lobbying if there are issues that Congress is discussing on which the American Physical Society or American Chemical Society can provide expert counsel? The question of who first approached whom is irrelevant. If the societies were to come and say to us, 'We would like you to find something for us to do,' that would be lobbying. But if Congress makes proposals on which a scientific group has been working for a long time, and if the organization would like to comment to us, then, for heaven's sake, do they have to depend on my ability to know that they, as scientists, are able to do this?"

Over $5 Million in NSF Grants To Five Physics Departments

Reports gathered by PHYSICS TODAY from department chairmen at Vanderbilt and Carnegie-Mellon Universities, and the Universities of North Carolina (Chapel Hill), Notre Dame and Maryland, indicated that their departments will receive a total of more than $5 million in National Science Foundation funds. The support will be channeled to the five departments through recent NSF university science development grants totaling $21.9 million to their respective institutions. The following is an account of the various ways in which these department heads intend to use the NSF funds.

The Vanderbilt physics-astronomy department will use its funds to add eight faculty members as specialists in optical astronomy, high-energy and nuclear physics and radiation biophysics. Emphases in the department will relate to energy deposition and primary molecular effects of radiation in biomolecules and x-ray crystallography of biomolecules. The department will also obtain a high-resolution beta-ray spectrometer, a multiparameter analyzer for gamma spectra, an on-line computer for measuring bubble-chamber particle tracks and a microphotometer for stellar spectra intensities. About 20 000 square feet of research space will be added, and a new science library will be built. Vanderbilt will also work on broadening its curriculum with particular interest in prospective secondary-school teachers.

Carnegie-Mellon will spend half its physics grant to construct 44 000 square feet of additional space for physics in a new science and computer building. New appointments in its theoretical and experimental solid-