S. K. Esin. *Status of Work at the Los Alamos Meson Factories.* The paper sets forth the basic results of studies carried out during a prolonged shutdown of the heavy-current LAMPF linear accelerator with the object of increasing the intensity of the accelerated beam. The 12-mA current-pulse proton injector is reliable enough to maintain average linear-accelerator currents up to 400 μA. To control the undesirable effects of transients in the resonators at high beam currents, the pulse front of the injected proton beam is regulated between 3 and 100 μsec. Good results have been obtained from the use of leading correction for resonator loading by the beam. The positions of elements in the accelerating and focusing section have been adjusted geodesically, and measures have been taken to match the longitudinal acceptances of the resonators. Amplitude and phase adjustments in the resonators have been automated. Simultaneous acceleration of 100-μA medium proton currents and 3-μA negative-hydrogen currents is now a working mode. A 165-μA proton current has been accelerated for 30 sec. By September 1976, the accelerator had delivered $6 \cdot 10^5$ μA-hr. The beam had been used for 60 experiments. In 1976–1977, regular work is being started on a magnetic spectrometer with high momentum resolution (design $\Delta p/p = 2 \cdot 10^{-5}$, attained as of this date $\Delta p/p = 10^{-4}$), four meson channels, external proton and high-energy-neutron beams, biomedical, radiochemical, and neutron complexes, and a complex for study of radiation damage and production of isotopes in the neutrino-experiment zone. The paper sets forth the basic problems and the program of the studies involved in the stepped increase of the accelerator's intensity to 300–400 μA, and later to the target value of 1 mA.

The program and state of work on the design of specialized accelerator installations for medical purposes and materials studies are described.

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D. S. Hagerman, Status of LAMPF-1976 (paper at Fifth All-Union Conference on Charged-Particle Accelerators, October 1976) (in press).

N. K. Abrosimov. *Plans for the Leningrad Institute of Nuclear Physics Accelerator Complex and Research on It.* The universal accelerator complex of the Leningrad Institute of Nuclear Physics (LIYaF) was designed to accelerate protons to an energy of 3 GeV and nuclei of all elements up to uranium in the range of energies from 2 to 1200 MeV/A. The complex includes a fast proton-ion synchrotron with strong focusing and a repetition frequency of 10 Hz and two injector accelerators: a heavy-ion synchrotron built around the existing LIYaF synchrocyclotron and a 20 MeV/A linear proton and light-nucleus accelerator.

The heavy-ion synchrocyclotron is also used simultaneously as an independent ~10 MeV/A heavy-ion accelerator.

The basic parameters of the accelerators in the complex are presented, and the expected beam intensities are given.

The basic areas of physical research on the beams of the accelerator complex are listed; they include nuclear physics, elementary-particle physics, biology, radiation medicine, and applied studies.

Translated by R. W. Bowers