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NIM 310N	0 to -10kV @ 1/4mA
NIM 313	0 to $\pm 3\text{kV}$ @ 10mA
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obituaries

atomic bomb and the nuclear reactor.

As the war ended Bush and a distinguished committee of scientists and engineers prepared the famous report "SCIENCE—The Endless Frontier" which proposed the continuation of the government "research contract" (which NDRC invented) for the support of civilian science. The creation of the National Science Foundation came directly out of the recommendation of this report. Through the support of NSF and other government agencies, the United States leaped into a position of world leadership in pure and applied science.

All of science and all scientists do now and will for generations to come owe a huge debt to Vannevar Bush.

LEE A. DUBRIDGE

California Institute of Technology
Pasadena

Alfred N. Goldsmith

Alfred N. Goldsmith, electronics scientist, engineer, inventor and educator died on 2 July. He was 85 years old.

Creator of the first commercial radio-phonograph, he also made significant contributions to the development of the first widely used color television tube. Other areas of research included sound motion pictures and medical electronics.

At his death Goldsmith was an honorary vice-president and the senior technical adviser of RCA. He was a fellow, director and director emeritus of the IEEE, as well as a fellow of the APS, AAAS, ASA, OSA and the International College of Surgeons.

The Institute of Radio Engineers honored him in 1941 with its Medal of Honor, in 1954 with its Founder's Award and in 1962 with a scroll of tribute at its golden-anniversary celebration.

Goldsmith held a lifetime appointment at the City College of New York as associate professor of electrical engineering. He received his PhD from Columbia University in 1911.

Keith McLane

Keith McLane, professor of aerospace engineering sciences at the University of Colorado, died on 14 June at the age of 52.

Born in La Grange, Illinois, McLane received his bachelors and masters degrees from the University of Wisconsin and his doctorate in chemical physics from Harvard University in 1948. Thereafter, he became a faculty mem-

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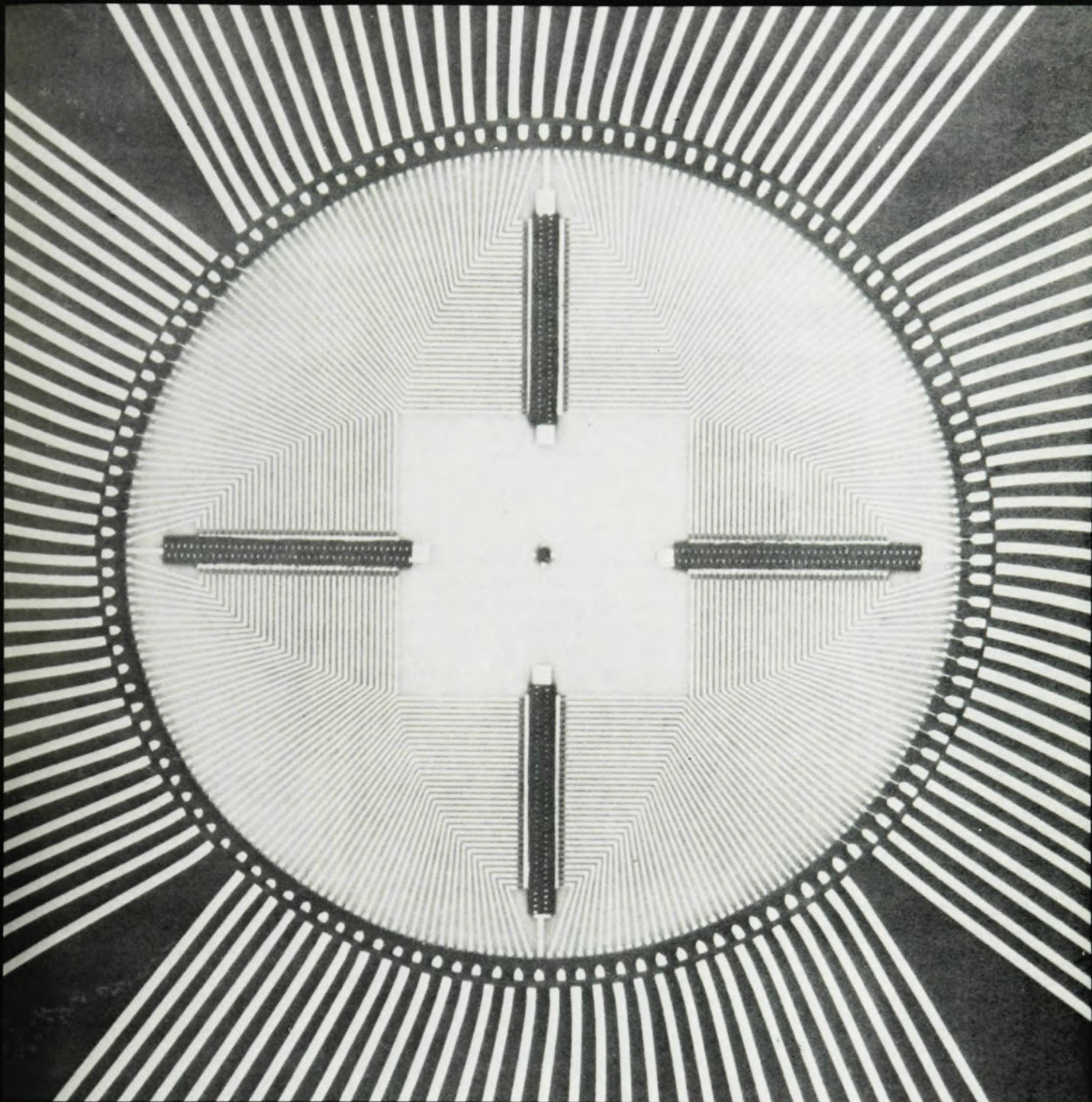
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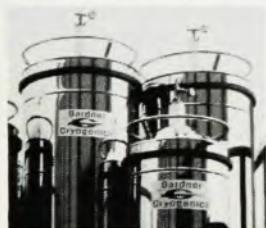
The Lincoln Laboratory, a research center of the Massachusetts Institute of Technology, is engaged in research and development in advanced electronics, with emphasis on applications to national defense and space exploration. The program of research extends from fundamental investigations in selected areas, through technology development of devices and components, to the design and development of complex systems. As an equal opportunity/affirmative action employer, we are actively seeking minority and women applicants.

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ber in the physics department of the University of Wisconsin, went on to the position of research physicist with the Linde Company of Union Carbide, headed plasma-physics research at the National Bureau of Standards in Washington, D.C. and came to Boulder in 1965 to head the plasma-physics group of the Environmental Science Services Administration of the United States Department of Commerce. He had been professor of aerospace engineering science at the University of Colorado since 1968 and served as chairman of the University Faculty Council from 1972 to 1973. McLane was a Guggenheim Fellow and held a patent on magnetically stabilized electric arcs.

Professor McLane will be remembered as a vital, understanding, friendly man committed to his students, to excellence in teaching, and to broad areas of scientific research. His office was frequented by students, who were delighted to find a faculty member so approachable and personally interested in them.

Guy F. Allen

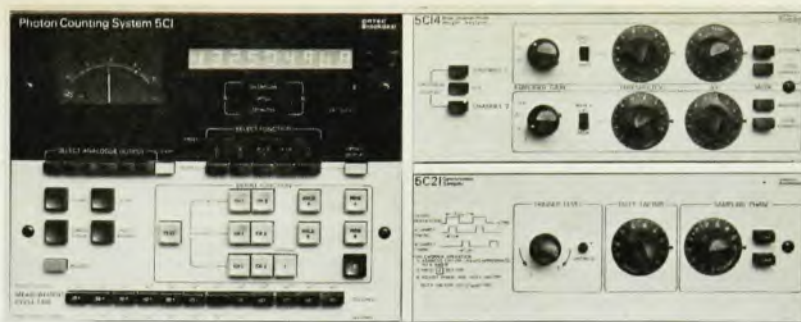
Guy F. Allen, associate professor of chemistry at Temple University, died on 30 January at the age of 38.

His undergraduate training was in chemistry at the College of William and Mary. Summers he worked with R. G. Bates and R. A. Robinson at NBS, measuring thermodynamic properties of electrolyte solutions. He received his PhD from the University of North Carolina in 1962 and joined the chemistry department at Temple University in 1965 where his primary research interests were the transport properties of binary mixtures near the critical point, particularly those of viscosity, diffusion and electric conductivity. In particular he made precision measurements of the critical anomalies in these transport quantities which received considerable attention in the field. He had planned on returning to an old interest, the challenging problem of membrane transport in living cells. He was on sabbatical leave at the Max Planck Institut für Biophysik, Frankfurt am Main, where he was working on membranes transport studies as an Alexander von Humboldt Fellow, when he died.

Allen was an enthusiastic, diligent teacher who will be long remembered by his students both for his devotion to them and for his continued insistence on maintaining high standards of academic excellence. To the many people that knew him, his loss is a severe one.

M. J. HAUGH
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Temple University
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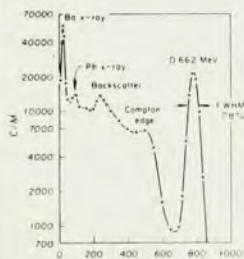
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