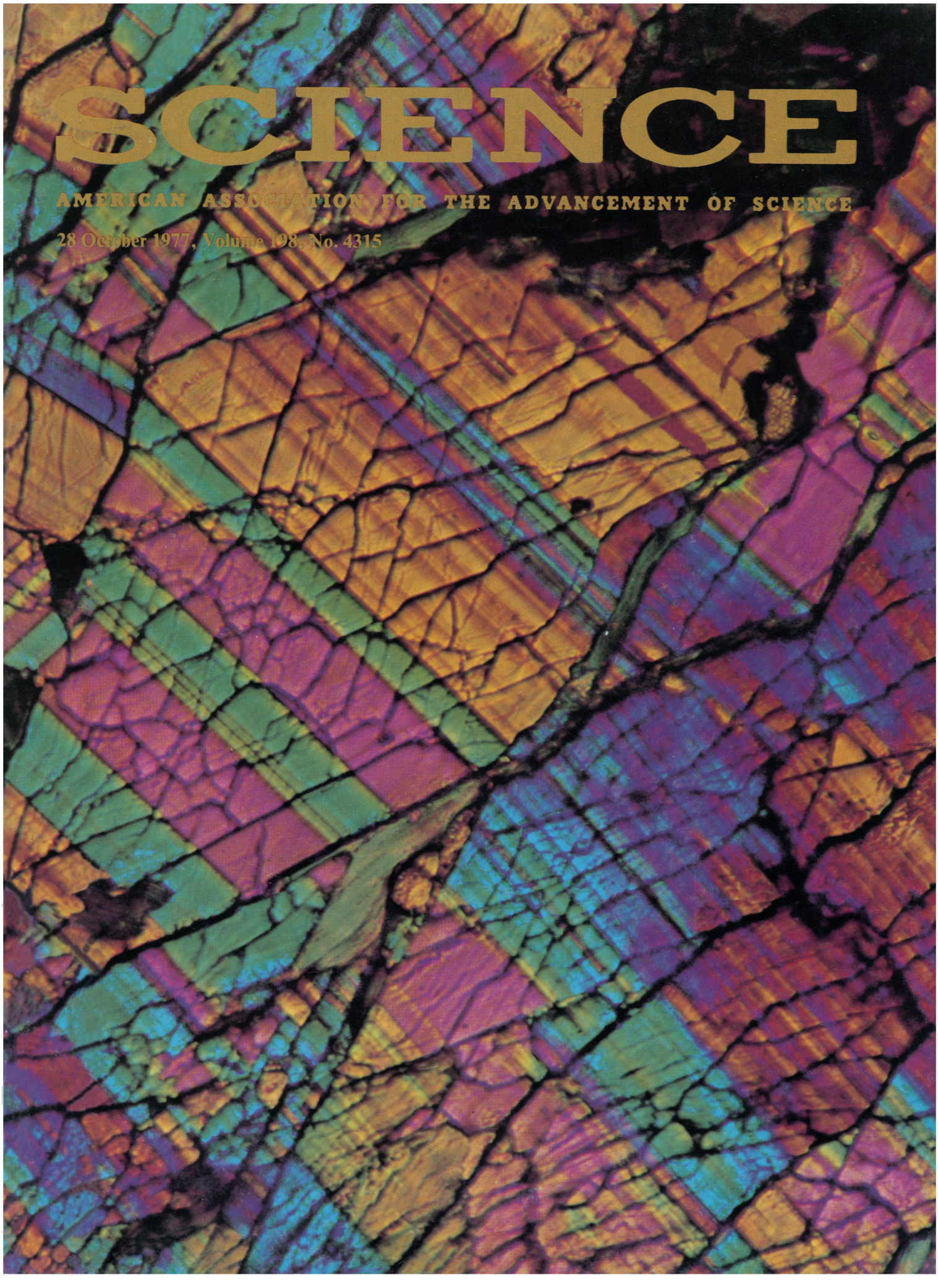
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28 October 1977, Volume 198, No. 4315

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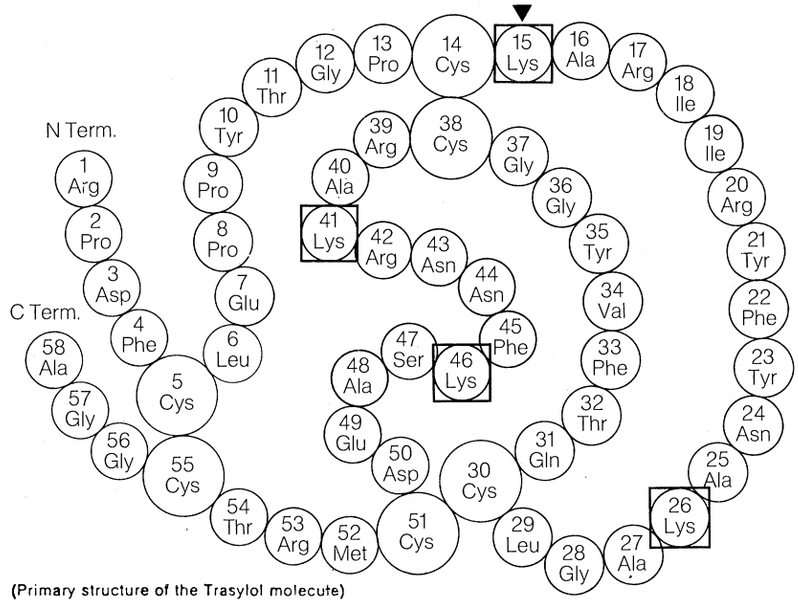

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1) S. R. Bloom: Hormones of the Gastrointestinal Tract. Brit. Med. Bull. 30, 62–67 (1974)
2) A. M. Eisentraut, N. Whissen and R. H. Unger: Incubation Damage in the Radioimmunoassay for Human Plasma Glucagon and its Prevention with "Trasylol". Amer. J. med. Sci. 255, 137–142 (1968).

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Volume 198, No. 4315

SCIENCE

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COVER

Asbestiform magnesium chain silicates from Chester, Vermont. Anthophyllite (yellow) has partially reacted to form the newly discovered minerals chesterite (blue and green) and jimthompsonite (pink). Streaked areas are regions of extreme structural disorder. (Optical micrograph of section 45 micrometers thick, cross-polarized light, × 650.) See page 359. [David R. Veblen and Peter R. Buseck, Arizona State University, Tempe; Charles W. Burnham, Harvard University, Cambridge, Massachusetts]

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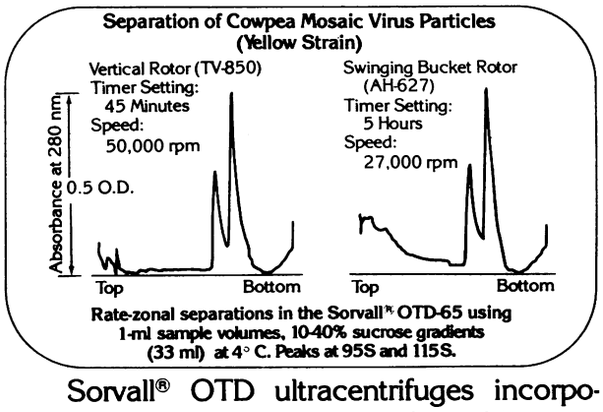

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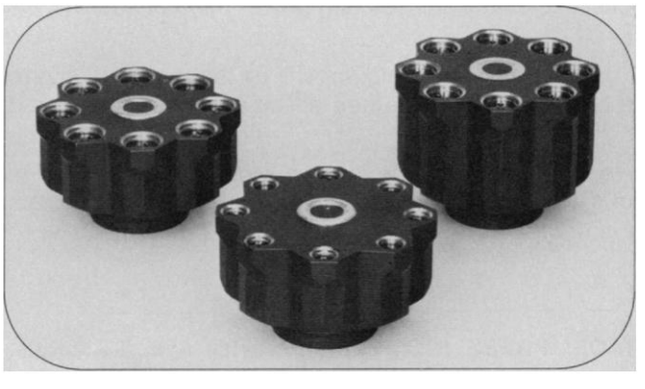

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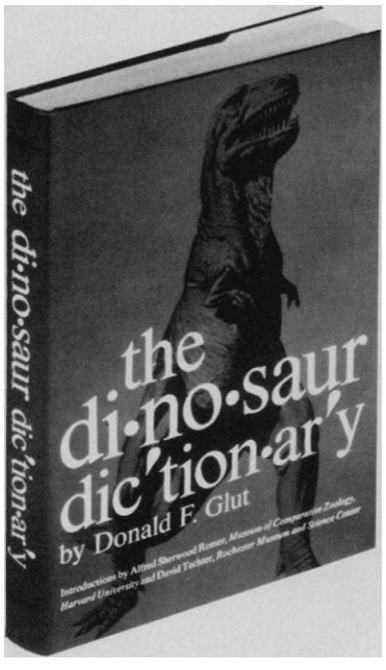
Introductions by Alfred Sherwood Romer, *Museum of Comparative Zoology,* Harvard University and David Techter, *Rochester Museum and Science Center.*



The dinosaurs were the most successful animals ever to walk this planet. For approximately 120 million years these creatures, which ranged from the size of a chicken to the largest land animals of all time, dominated the earth. Their peculiar forms and the tremendous sizes some of the dinosaurs attained have made them objects of particular fascination.

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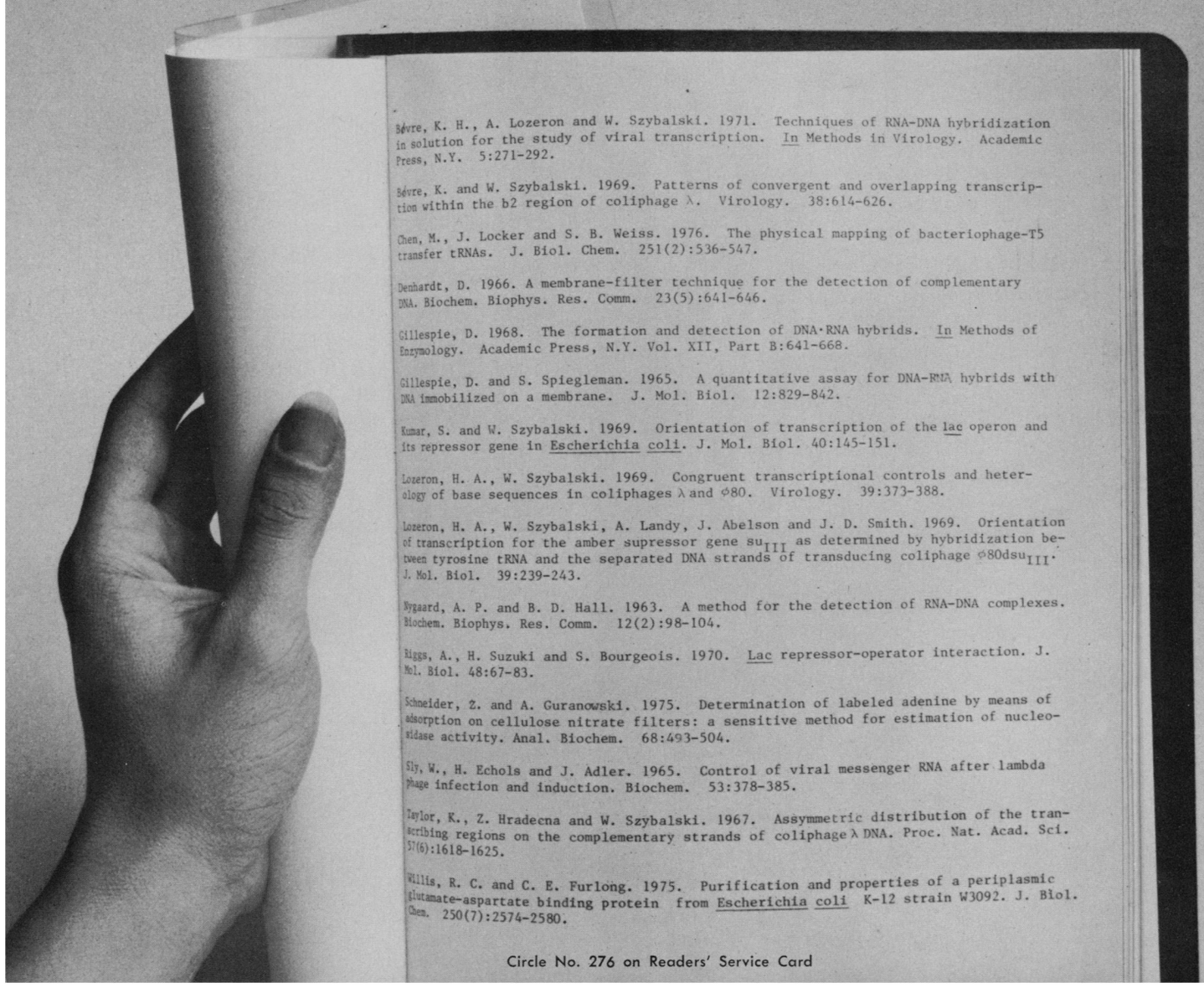

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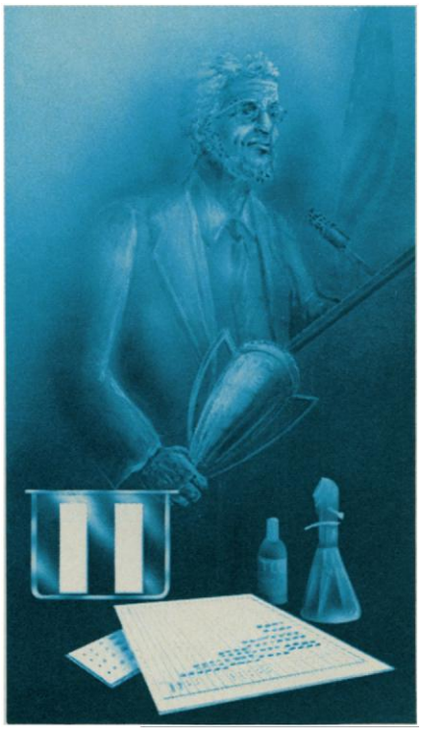

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28 October 1977, Volume 198, Number 4315 **SCIENCE**

Recombinant DNA Legislation—What Next?

In a surprise move, Senator Edward M. Kennedy (D-Mass.) announced on 27 September that he would withdraw his controversial bill S1217 on the regulation of recombinant DNA research. In a speech before the Medical Writers Association, Kennedy referred to recent scientific evidence suggesting that the risks associated with recombinant DNA research have been overstated. He applauded the participation of scientists and the public thus far in national debate of the issues, and proposed that the NIH guidelines, as revised and updated from time to time, be the basis for new legislation. Kennedy called for a 1-year extension of current NIH guidelines to all parties engaged in recombinant DNA research. He also asked that there be continued lay involvement in the process of "evaluation, development and implementation of our national policy toward science and medical research."

There has been a need for caution and careful deliberation all along as the different positions on recombinant DNA legislation have emerged. Among the positions enunciated, perhaps the most tenable have been those set forth as "nine principles" and ratified by the governing council of the American Society for Microbiology.* The nine principles address major aspects of the proposed legislation, bills S1217 and HR7897, namely (i) the need for a national commission, whose powers were defined as greater than those of the Secretary of Health, Education, and Welfare, to regulate recombinant DNA research; (ii) local or state preemption that would create a "patchwork" of regulations across the nation; and (iii) the imposition of fines against individual scientists who fail to comply with the letter of the law.

In June, members of the Inter-Society Council for Biology and Medicine actively sought, through biomedical professional societies, to assess the sentiment of the scientific community regarding recombinant DNA legislation. The result was impressive: a coalition of scientific organizations, elected officers of such organizations, and individual scientists rallied to the support of the nine principles. Congressman Paul Rogers (D-Fla.), sponsor of HR7897, moderated his original bill to accommodate most of the nine principles.

On 2 August, Senator Gaylord Nelson (D-Wis.) introduced an amendment to S1217. He pointed out that his amendment differed from the Rogers and Kennedy bills on a number of major issues, including the nature and extent of regulation necessary, definition of activities to be regulated, penalties for noncompliance, and state and local preemption. The reasonable positions set forth in the Nelson amendment quickly gained the support of other senators.

Among the Senators to come forward was Adlai Stevenson (D-Ill.), who is to be commended for his statesmanlike perspective. The *Congressional Record* of 22 September records an exchange of letters between Stevenson and the Science Adviser to the President, Dr. Frank Press. Stevenson skillfully reviewed the concerns of scientists and the public regarding recombinant DNA research from 1973 to the present, and placed the early concerns and later alarms in proper relation to one another. Because of data indicating a need for moderation in the assessment of hazard and risk, Stevenson is urging his senatorial colleagues to "enact legislation which is essentially interim in character and which permits great flexibility in accommodating to the scientific evidence as it is developed."

There is need now for a new era of openness in the dialogue between the scientific segment of our nation and those who represent us in the Legislative Branch. No longer dare we flaunt our perceived power or underestimate the genuine efforts of concerned citizens to protect themselves from risk. The treasured freedom of scientific inquiry can be rapidly eroded if we "come on too strong" with self-serving pronouncements and overzealous protective positions. It is a time to speak, but it is also a time to listen—carefully.—HARLYN O. HALVORSON, *Rosenstiel Basic Sciences Research Center, Brandeis University, Waltham, Massachusetts 02154*

*H. O. Halvorson, *Science*, 10 June 1977, p. 1154 (letter).

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A line of autoclaves features easy-to-open doors with safety interlocks and rapid hydraulic actuation. The chambers may be fitted with circulating fans, vacuum or gas manifolds, work platforms, and environment-conditioning shrouds. Mechanical refrigeration creates low temperatures and electric heater banks raise temperatures. Control of heating, cooling, vacuum, and gas pressure is electronic. Tenney Engineering. Circle 683.

Glucose Analysis

StatTek is an integrated reagent test strip and twin-beam photometer system that provides quantitative determinations of glucose in whole blood or serum within 2 minutes. The user places a drop of sample on the test strip, wipes the strip dry after 1 minute, then inserts the strip in the photometer, and reads glucose concentration in milligrams per deciliter. Bio-Dynamics/bmc. Circle 684.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card (on pages 358A and 422A) and placing it in the mailbox. Postage is free.

—RICHARD G. SOMMER

Blood Gas Analyzer

The BG II measures 11 parameters on blood samples as small as 130 microliters in as little as 2.5 minutes. Results are printed out for pH, $p\mathrm{CO}_2$, $p\mathrm{O}_2$, hemoglobin, standard base excess, base excess, standard bicarbonate, bicarbonate, oxygen saturation, oxygen content, and total carbon dioxide. All tests, calibration, and wash cycles are push-button controlled. Technicon. Circle 689.

Desk-Top Computer

The series 9800 system 45 has a powerful central processing unit and a large mass memory. It features 12-inch CRT display, BASIC language capability, applications software, and an optional graphics package with a high-speed printer. The keyboard has separate groupings for program control and editing, CRT control, and for other user-defined functions. Hewlett-Packard. Circle 686.

Fluorescent Label Standard

DTAF (dichlorotriazinylaminofluorescein I) is an immunofluorescent label that conjugates to immunoglobulins in 1 hour at room temperature. These conjugates may be quickly fractionated by simple procedures with ammonium sulfate to yield preparations free of over- or under-conjugated material without using columns or dialysis. DTAF is stable in storage and has a high and reliable labeling efficiency. Research Organics. Circle 690.

Refrigerated Centrifuge

The Clini-Cool centrifuge performs routine separations on the laboratory bench. The refrigeration system protects samples at 4°C. More than 70 combinations of accessories are available to meet a variety of requirements. Features include a full safety cover interlock and quiet operation. Speeds up to 4375 revolutions per minute and forces up to 2175 times gravity are offered. It will accommodate volumes up to 312 milliliters or up to 30 tubes 8 by 95 millimeters. Damon/IEC. Circle 691.

Glucose Analyzer

Model 23AM measures glucose in whole blood, plasma, or serum. The device reads concentration in milligrams per deciliter and is simple to operate. The principle of operation involves enzymatic conversion of glucose and oxygen to gluconic acid and hydrogen peroxide. A patented probe produces a linear signal proportional to the glucose present by detecting the amount of hydrogen peroxide produced. The enzyme is immobilized on the membrane that covers the tip of the probe. Routine replacement of the membrane and a few other simple tasks are all the maintenance the system requires. Yellow Springs Instrument. Circle 682.

Microtome

Cryo-Cut II features an automatic defroster. The rotary microtome produces flat sections 2 to 40 micrometers thick in 2-micrometer increments. Temperature is controllable from 5° to −30°C and a laminar air flow system maintains the desired temperature at knife level even when the sliding door is open. Knife is positioned on a horizontal plane. Controls are easily accessible to the operator. American Optical. Circle 685.

Literature

Spectroscopy Standards include solutions for atomic absorption, flame emission, x-ray fluorescence, and optical emission spectroscopy in organo-elemental form. Chemplex Industries. Circle 696.

Scintillation Counting Medium describes Optisol which is formulated especially for assaying samples with low activity. Isolab. Circle 697.

Centrifugation Media for Biological Separation lists media, procedures, and specifications. Accurate Chemical & Scientific. Circle 692.

Epidermal Growth Factor is the subject of a six-page bulletin that describes properties, preparation, applications, and related products. Collaborative Research. Circle 699.