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<b>LETTERS</b>	Toxic Effects of Interferon: <i>R. R. Oldham</i> ; Nuclear Plant Safety: <i>D. H. Roy</i> ; <i>E. Marshall</i> ; Academic Economics Continued: <i>W. Leontief</i> ; Sheep Deaths in Utah: <i>W. J. Bair et al.</i> ; <i>R. J. Smith</i> ..... 902
<b>EDITORIAL</b>	Censorship, Soviet Style ..... 911
<b>ARTICLES</b>	Precision Measurements and Fundamental Constants: <i>F. M. Pipkin</i> and <i>R. C. Ritter</i> ..... 913
	Micronesian Prehistory: An Archeological Overview: <i>J. L. Craib</i> ..... 922
	Understanding Nonrenewable Resource Supply Behavior: <i>D. R. Bohi</i> and <i>M. A. Toman</i> ..... 927
<b>NEWS AND COMMENT</b>	Technology and Cycles of Boom and Bust ..... 933
	Weapons Proposal Stirs Disquiet at Stanford ..... 936
	Fraud Inquiry Spreads Blame ..... 937
	<i>Briefing</i> : Fredrickson to Be VP of Hughes Institute; Biotech Firm Biogen Is Going Public; In Vino, Veritas; Animal Welfare Bills on Legislators' Agenda; The Growing Corporate Role in University Budgets ..... 938
	Math Archive in Disarray ..... 940
<b>RESEARCH NEWS</b>	Clues to Alzheimer's Disease Emerge ..... 941
	Deep-Sea Drilling Rescued by a New Option ..... 942
	A New Picture of Surfaces Begins to Emerge ..... 944
<b>ANNUAL MEETING</b>	Preliminary Program; Meeting Information; Advance Registration and Hotel Reservations Forms; Travel Information ..... 948

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<b>BOOK REVIEWS</b>	Beyond Separate Spheres, <i>reviewed by H. Cravens</i> ; The Road to Jaramillo, <i>M. T. Greene</i> ; Archaeology as Human Ecology, <i>D. R. Harris</i> ; Ecology of Bats, <i>D. W. Morrison</i> ; The Geomorphology of the Great Barrier Reef, <i>S. V. Smith</i> ; Books Received .....	957
<b>REPORTS</b>	Translocation and Rearrangements of the <i>c-myc</i> Oncogene Locus in Human Undifferentiated B-Cell Lymphomas: <i>R. Dalla-Favera et al.</i> .....	963
	Methane Synthesis on Nickel by a Solid-State Ionic Method: <i>T. M. Gür and R. A. Huggins</i> .....	967
	Demography of Northern Elephant Seals, 1911–1982: <i>C. F. Cooper and B. S. Stewart</i> .....	969
	Gene for Hereditary Retinoblastoma Assigned to Human Chromosome 13 by Linkage to Esterase D: <i>R. S. Sparkes et al.</i> .....	971
	Patient with 13 Chromosome Deletion: Evidence That the Retinoblastoma Gene Is a Recessive Cancer Gene: <i>W. F. Benedict et al.</i> .....	973
	Transfusions of Whole Blood Prevent Spontaneous Diabetes Mellitus in the BB/W Rat: <i>A. A. Rossini et al.</i> .....	975
	Resistance to a Malignant Lymphoma in Chickens Is Mapped to Subregion of Major Histocompatibility ( <i>B</i> ) Complex: <i>W. E. Briles et al.</i> .....	977
	Chronic Parkinsonism in Humans Due to a Product of Meperidine-Analog Synthesis: <i>J. W. Langston et al.</i> .....	979
	Thermal Vent Clam ( <i>Calyptogena magnifica</i> ) Hemoglobin: <i>R. C. Terwilliger, N. B. Terwilliger, A. Arp</i> .....	981
	Tumor Cells Secrete a Vascular Permeability Factor That Promotes Accumulation of Ascites Fluid: <i>D. R. Senger et al.</i> .....	983
	Yolk Pigments of the Mexican Leaf Frog: <i>G. V. Marinetti and J. T. Bagnara</i> .....	985
	Ammonium Chloride Prevents Lytic Growth of Reovirus and Helps to Establish Persistent Infection in Mouse L Cells: <i>W. M. Canning and B. N. Fields</i> .....	987
	Suppression of Epididymal Sperm Antigenicity in the Rabbit by Uteroglobulin and Transglutaminase in vitro: <i>D. C. Mukherjee et al.</i> .....	989
	Action Potentials in Macrophages Derived from Human Monocytes: <i>F. V. McCann et al.</i> .....	991
	Two-Component Hearing Sensations Produced by Two-Electrode Stimulation in the Cochlea of a Deaf Patient: <i>Y. C. Tong et al.</i> .....	993
	Virus Infection of Culturable <i>Chlorella</i> -Like Algae and Development of a Plaque Assay: <i>J. L. Van Etten et al.</i> .....	994
	Technical Comments: Global Mean Sea Level: Indicator of Climate Change?: <i>A. Robock; J. Hansen et al.; R. Etkins and E. Epstein</i> .....	996

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#### COVER

Landsat-1 photograph of southeastern area of Michigan. Detroit, site of AAAS Annual Meeting (26–31 May 1983), is in upper left portion. Faint grid marks indicate heavily populated area. Bodies of water (dark blue areas) are Lake St. Clair east of Detroit and Lake Huron south of the city. See page 948 for Preliminary Program of the Annual Meeting. [Courtesy NASA, Goddard Space Flight Center, Greenbelt, Maryland]

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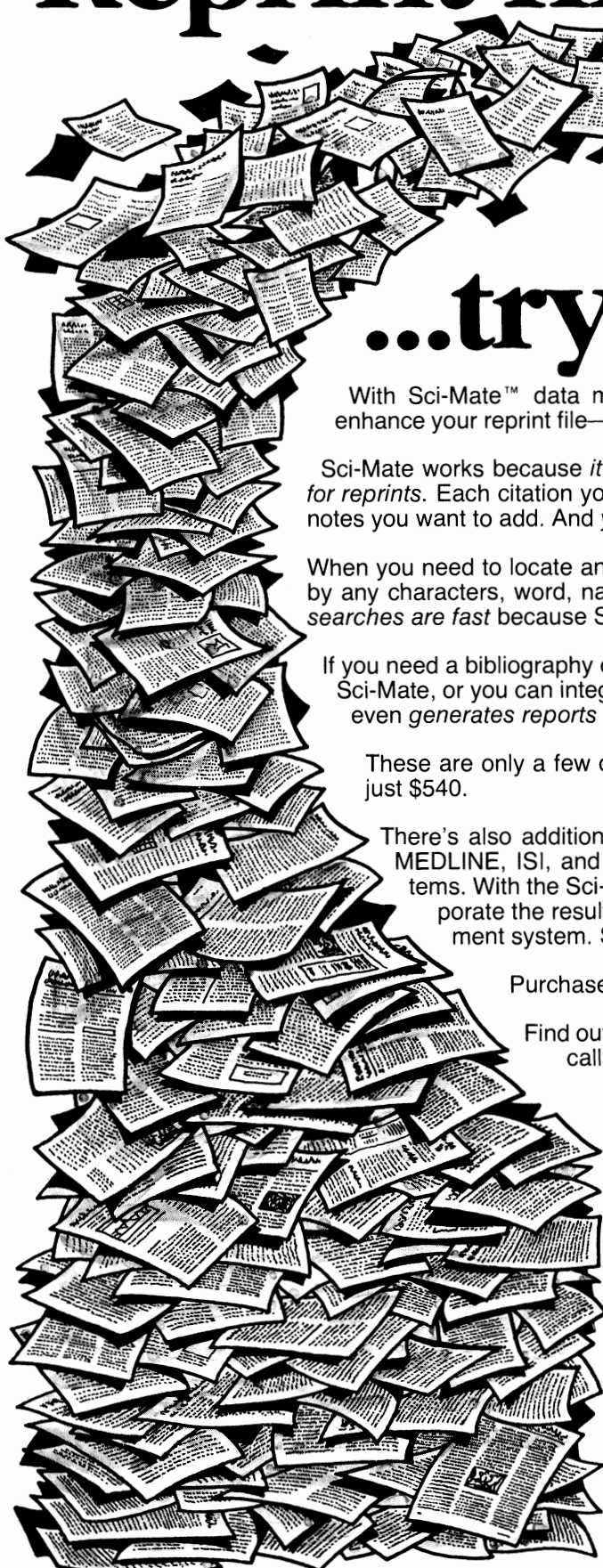
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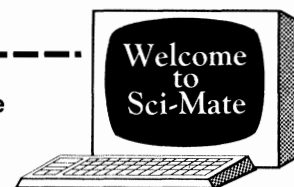
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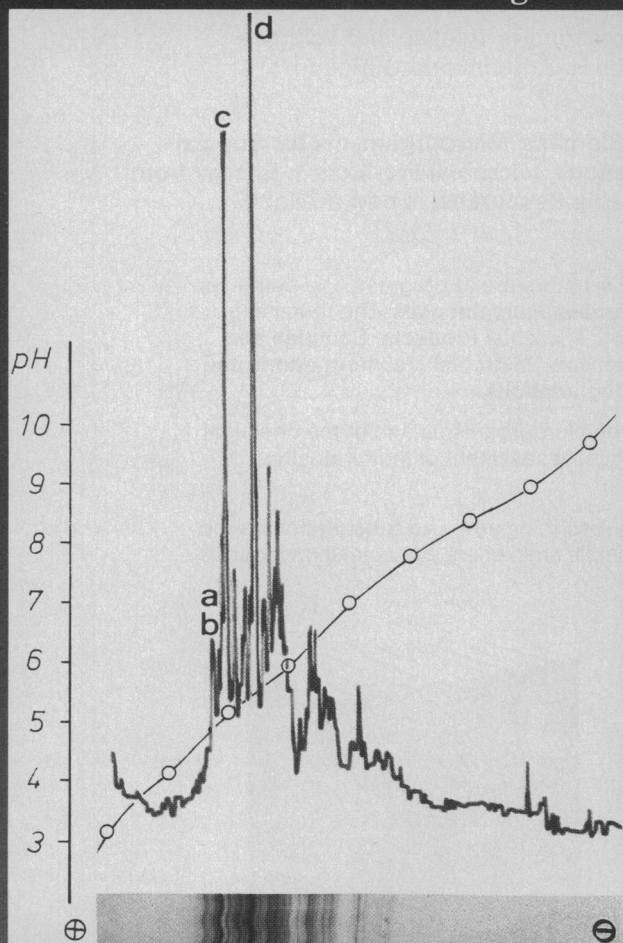
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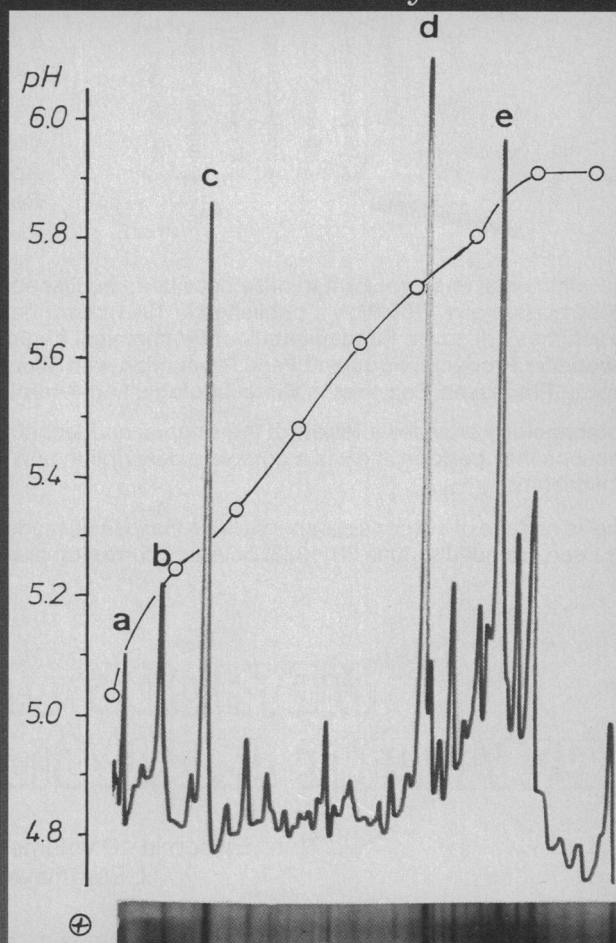


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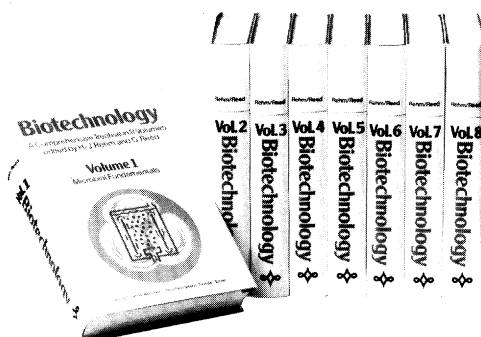
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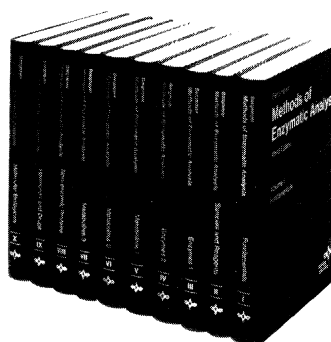
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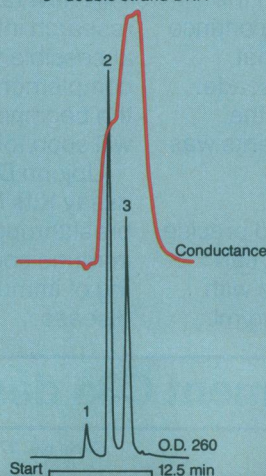
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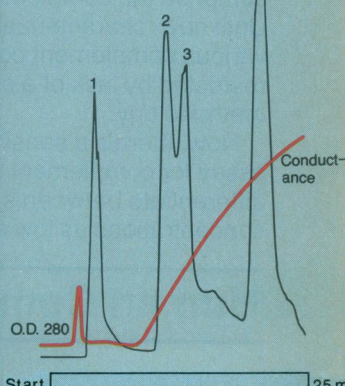
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denatured calf thymus DNA  
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column  
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0.1, 0.2, 0.3 molar, pH 6.8  
Flow  
rate: 1.0 ml/min  
Peaks:  
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2= single strand DNA  
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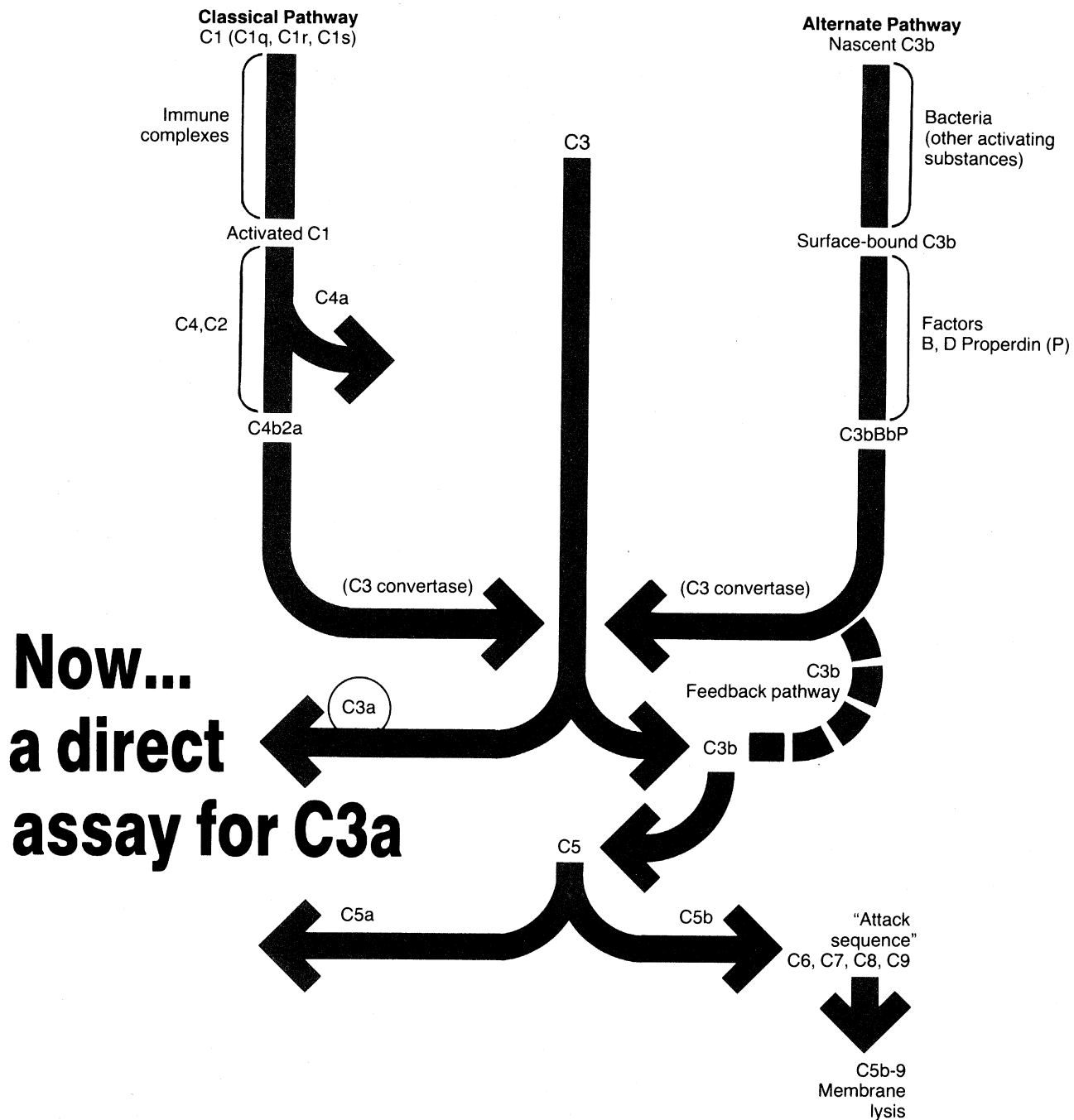
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phosphate, 0.3 mM calcium  
chloride pH 6.8 to 0.3 M sodium  
phosphate, 0.01 mM calcium  
chloride, pH 6.8  
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rate: 1.0 ml/min  
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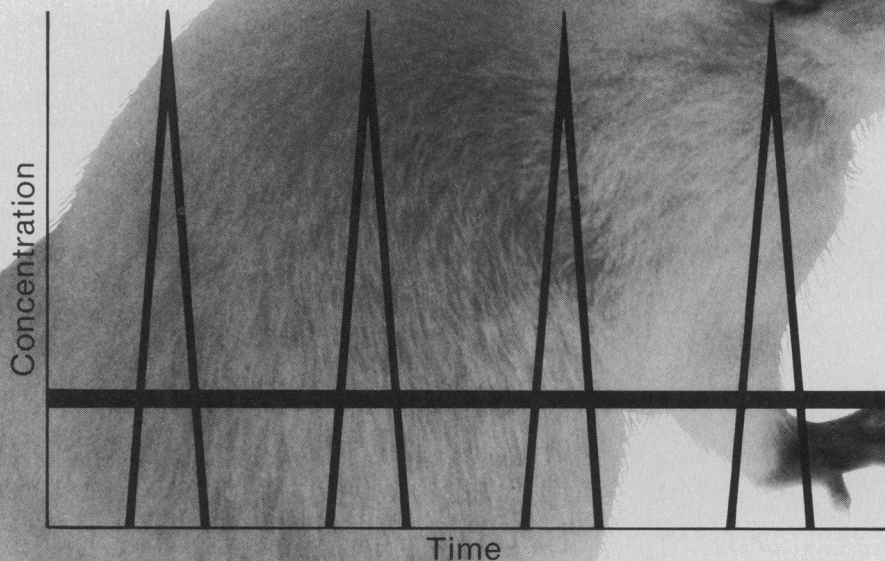
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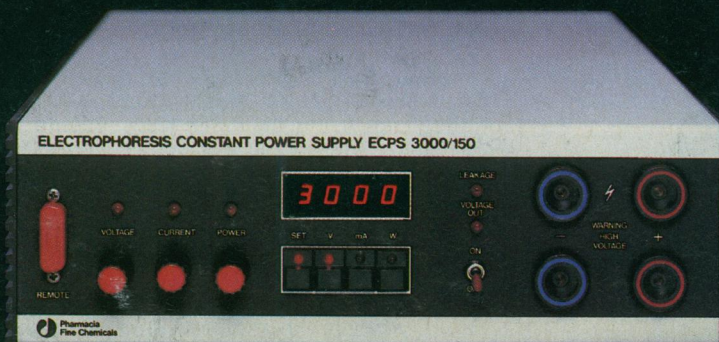
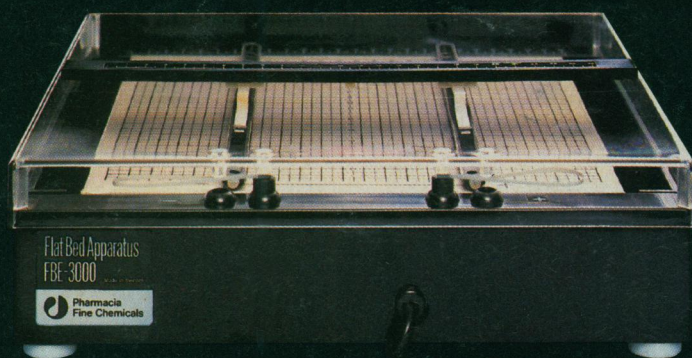
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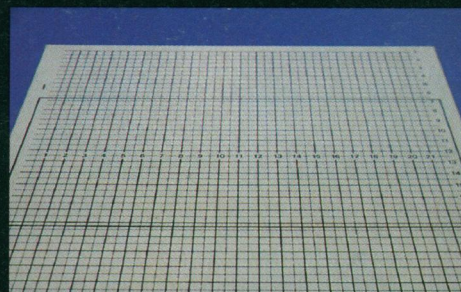
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#### References and Notes

1. *Journal of Political Economy* (since October 1980); *American Economic Review* (since September 1980); *Journal of Monetary Economics* (since October 1980); *Econometrica* (since November 1980); *Review of Economics and Statistics* (since November 1980); *Quarterly Journal of Economics* (since November 1980); *Brookings Papers on Economic Activity* (since 1980, No. 1).
2. R. A. Gordon, *Am. Econ. Rev.*, 66 (No. 1), 5 (1976).

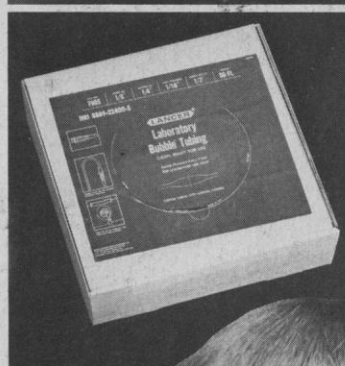
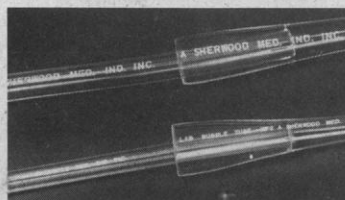
### Sheep Deaths in Utah

R. Jeffrey Smith's News and Comment article "Scientists implicated in atom test deception" (5 Nov., p. 545) presents a depressing picture of government bureaucrats and unethical scientists whitewashing effects of weapons tests to deceive sheepmen. The bias may only have reflected the judge's ruling in the case described, but one would hope that *Science* might present a more balanced analysis, devoid of scare headlines.

It is a matter of record that the rigors of the winter range have taken heavy tolls of ewes and lambs before and since the era of above-ground testing; this might have been mentioned. The availability of pertinent research data from Hanford Laboratory studies might have been attributed to the Atomic Energy Commission's (AEC's) commendable foresight in sponsoring these studies, rather than to "extraordinary luck." The full disclosure of all results from these studies in reports from the Hanford Laboratory to the AEC might have been commended as proper scientific reporting rather than described by the term, "curiously." And the selection of data for court presentation on the basis of scientifically evaluated relevance might have been defended as a proper exercise of scientific judgment. Had all these things been done, the story would have been less exciting but more in accord with the realities as we (former colleagues of Leo Bustad and Harry Kornberg at Hanford Laboratory) remember them. We were not involved with the sheep studies at Hanford Laboratory, but we will not accept as true any allegations of impropriety, let alone fraud.

In our view, the defendants in the 1956 civil suit brought by sheepmen were guilty of no breach of scientific ethics. They brought to the court their relevant data and their best scientific opinion. Unfortunately, their testimony is not even available now to serve in their defense because transcripts of the 1956 court proceedings were destroyed by the Utah court. If, under such circum-

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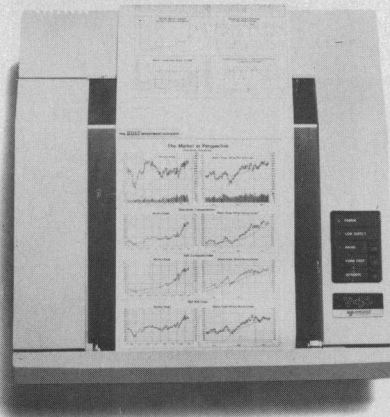
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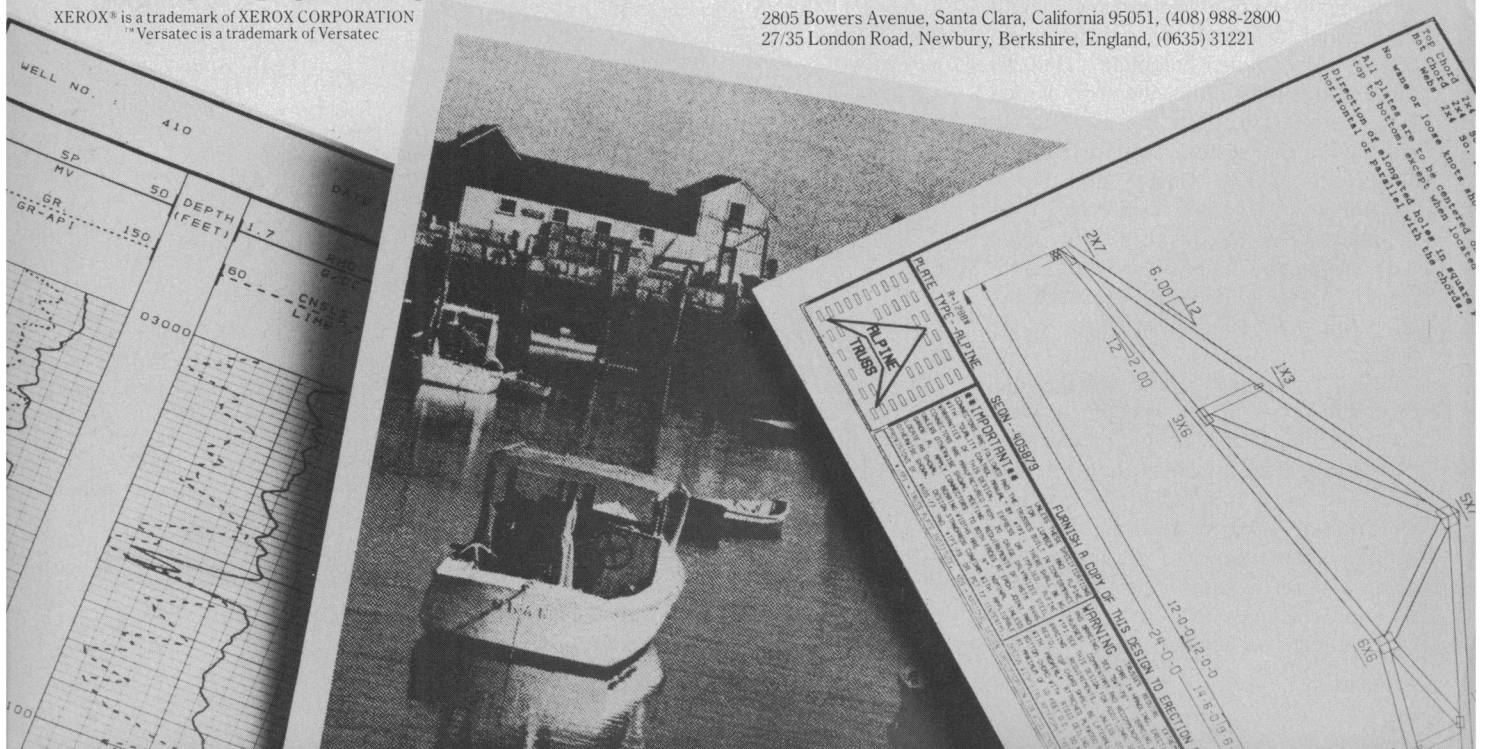
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stances, scientists can be convicted (or harassed with threats) of fraud, few capable scientists will be willing to lend their expertise to the judicial process.

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On the three alleged points of bias, the facts are as follows:

1) Sheep deaths may not be unusual on the winter range, but, as the AEC's official 1954 report stated, they were unusually heavy in the spring of 1953, when fallout levels were particularly high.

2) As indicated in Leo Bustad's report, the Hanford studies were begun in anticipation of radiation leakage from onsite nuclear production efforts, not the nuclear testing program. Sheep happened to be the principal grazing animals nearby.

3) As for disclosure of the Hanford results, Paul Pearson and Bernard Trum—two former AEC employees—acknowledged in recent court documents that Bustad's public, written report was misleading because it omitted important facts. Bustad himself testified last year that it lacked crucial details.

4) Although the original trial transcript is missing, virtually everyone involved in the original AEC investigation was invited to testify at the recent hearing and given ample opportunity to recollect the facts. It was after hearing such recollections that Judge Christensen decided that a fraud had been "practiced upon the court" in 1956.

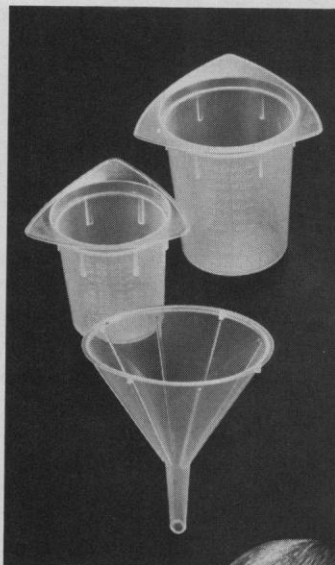
—R. JEFFREY SMITH

**Erratum:** In the article "Wyngaarden sets policy agenda for NIH" by Barbara J. Culliton (News and Comment, 4 Feb., p. 470), two sentences were garbled. On page 470, the last sentence in the first full paragraph of column 3 should have been "Howard M. Temin, of the McArdle Laboratory at the University of Wisconsin, Madison, on the other hand, commented that, inasmuch as research grants are the 'engine' that drives the whole enterprise, it makes sense to treat them so favorably." On page 471, the last sentence in column 2 should have been "Given the research community's general opposition to creating institutes disease-by-disease, it would not come as a complete surprise if the IOM were to take a position that matched Wyngaarden's own."

**Erratum:** In the report by A. E. E. Rogers *et al.* in the 7 January issue (p. 51), the ordinate of figure 1 was incorrectly labeled; it should have read: "Baseline length -3,928,881.60 (m)." In table 1, the source pairs were difficult to decipher because of lack of space around dashes; they should have been, for example, "0355+508 -0851+202." Finally, in table 2 the number of individual experiments (16) in which Haystack participated was omitted; in addition, the last sentence of the footnote to the table should have read: "We believe, but are not certain, that these differences are due to the uncorrected effects of the ionosphere on the Mk I observations which involved X-band frequencies only."

**Erratum:** In Arthur L. Robinson's article "CERN reports first vector boson evidence" (Research News, 4 Feb., p. 480), the fifth sentence in the fifth paragraph should have read, "The annihilation of a quark with charge +2/3 and an antiquark with charge +1/3 produces a W<sup>+</sup>, for example."

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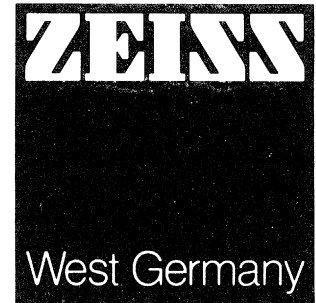
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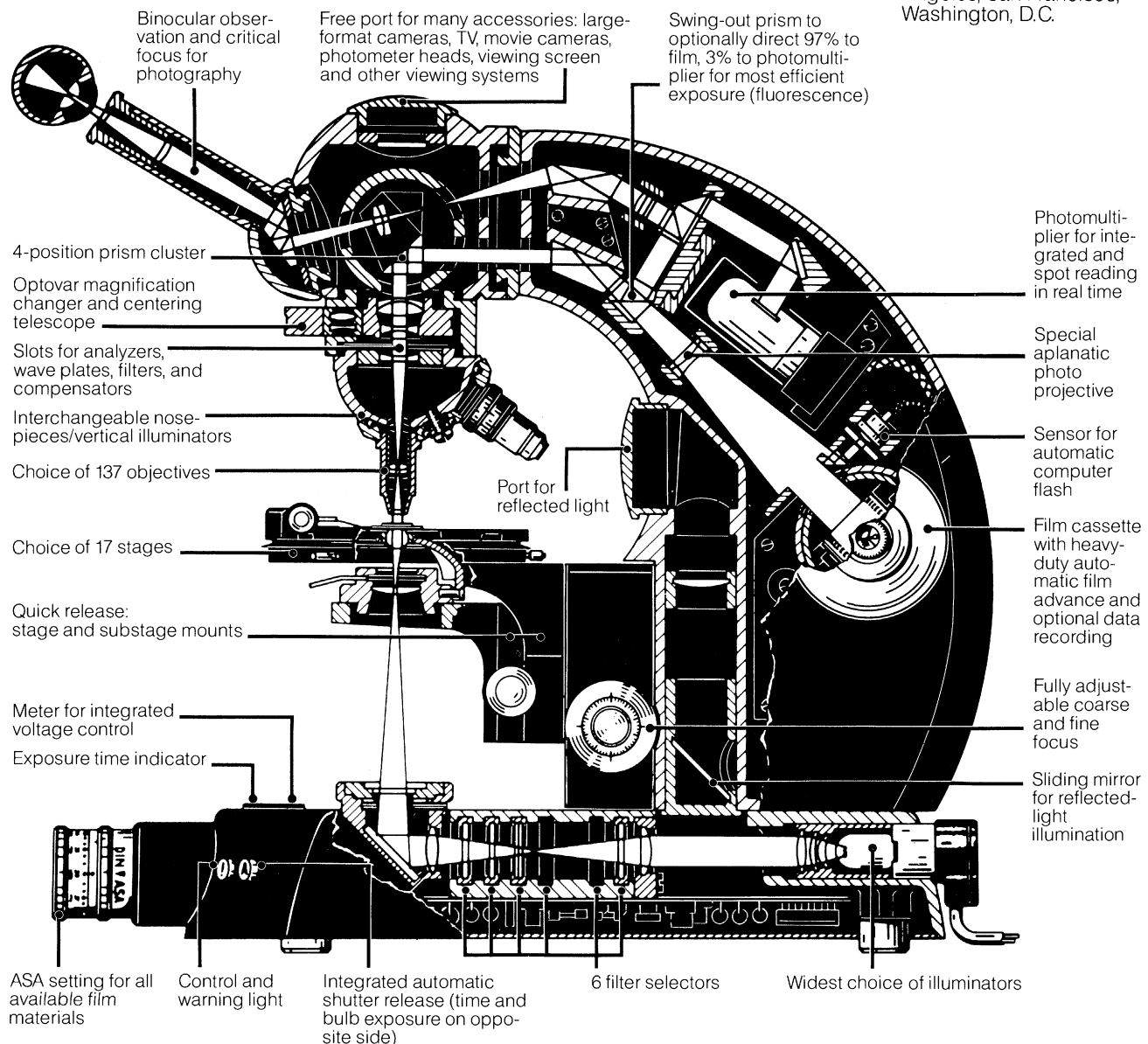
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# Censorship, Soviet Style

Governmental power, when used to dictate what is permissible in scientific communication, tends to breed the climate of surveillance and intimidation that has long prevailed in closed societies accustomed to employing censorship to keep the natives in line. As the Soviet experience demonstrates, the habit evolves into an institution.

Sixty years after the founding of the Soviet state, and notwithstanding the eminence of Soviet scientists in the world community, the evidence is that distrust of brainpower remains as profound as in the era of the czars. Not even the brief window of détente, which found American and Soviet scientists mingling and promoting fellowship, changed the facts of life for Soviet intellectuals.

It is instructive to observe the impact of compulsive Soviet censorship on the English-language copies of *Science* that are imported under a long-standing purchase agreement with the AAAS. Systematic blackout is regularly imposed on editorials, letters to the editor, and news features. The effect, one suspects, is to alert Soviet scientists to the missing material and promote a lively underground market for it.

To safeguard the innocence of Soviet scientists during 1982, the censors ranged broadly over the alarming contents of *Science*. Struck from the issue of 23 April 1982, for example, was the entire letters department, in which appeared a protest against the revocation, on political grounds, of academic degrees in the Soviet Union. The censors likewise obliterated Donald Kennedy's editorial on "The government, secrecy, and university research," although it might have consoled Soviet readers to learn that their envied colleagues in the West have a few problems, too. Pressing on, the censors deleted a critical commentary on the MX missile. Of the five issues of *Science* in April, three had the news section amputated in whole. The following month, having rested, the censors were at it again, eliminating the news section for 21 May, which dealt with alternatives to the MX, the fortunes of Livermore National Laboratory in "the laser battle," the downfall of statistics at the hands of the Reagan Administration, and French attempts at reforming education. So it went throughout 1982, as indeed it had gone in every previous year.

To the extent that such mangling signals Soviet dissatisfaction with *Science*, the harm is small and our journal will survive it. The real import is of another kind, for it exposes the insecurity of a society that is unwilling and unable to trust its scientific community. It would not be surprising to find that the withholding of that trust by the Soviet government induces a response in kind and intensity, for the small affair concerning *Science* can only hint at the hostage state of scientists in the Soviet Union.

The Soviets' perennial defense of the censors' actions is that the expurgated materials in *Science* are of no interest to their scientists. It is a peculiar argument, considering what the authorities do *not* censor. We are asked to believe that Soviet scientists could not wait to get their hands on accounts of an audit of an American university's research grants, the Environmental Protection Agency's relaxation of hazardous waste rules, a letter about science and religion, and a news brief on federal security checks on peer reviewers of agricultural research. They were not to be interested, on the other hand, in reports on counterforce weapons or an accident at the European Organization for Nuclear Research (CERN).

It is tempting to deplore the lot of Soviet scientists while exulting in our better fortune. It would be wiser to reflect on the surpassing importance of trust in the contract between science and government in an open society, together with the obligation on both sides to respect it. On that foundation rests the whole of the American arrangement. The authors of the pending national security directive on protecting unclassified scientific information, now being drafted at the White House, should take note.

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<b>The Westin Hotel</b> <i>Headquarters Hotel</i> Renaissance Center (No. of rooms blocked: 1,200)	\$65	\$77	\$170 and up	\$260 and up	\$4.00 per 24 hrs. — Parking Lot B (see "Meeting Information" for details; see map for location). Valet Parking also available.
<b>Hotel Pontchartrain</b> 2 Washington Boulevard (No. of rooms blocked: 200)	\$58	\$73	\$170 and up	\$240 and up	\$6.00 per 24 hrs.: Valet parking with in & out privileges for registered guests only.
<b>Book Cadillac Hotel</b> 1114 Washington Boulevard (No. of rooms blocked: 300)	\$42	\$52	\$135 and up	\$189 and up	\$6.00 per 24 hrs.: Valet parking with in & out privileges for registered guests only.

The Book Cadillac Hotel also offers these special rates: **Triple occupancy, \$62; Quadruple occupancy, \$72.**

\*Add 5%: 4% Michigan State Sales Tax plus 1% Transient Facility Assessment.

Charges for extra person in room: Westin and Pontchartrain, \$15/night; Book Cadillac, \$10/night. Inquire about roll-away beds.

Children are accommodated free of charge in same room with parents if no extra beds are required. Age limits are as follows: Westin, 17 and under; Pontchartrain, 18 and under; Book Cadillac, 16 and under.





*American Association  
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# ANNUAL MEETING

**Detroit, Michigan  
May 26-31, 1983**



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