

Letters

(Continued from page 798)

vents hydrocarbon-induced mammary cancer in rats (5). Selenium, an old-time offender (6), has now emerged as an essential trace element, a deficiency of which causes serious problems in certain farm animals (7). Scientific, rather than legal, interpretations would seem to be the greatest need in the field of food additives. These interpretations should be made by those who will evaluate not only the risk of environmental cancer but also the need for chemicals in maintaining the food supply.

THOMAS H. JUKES

American Cyanamid Company,
New York

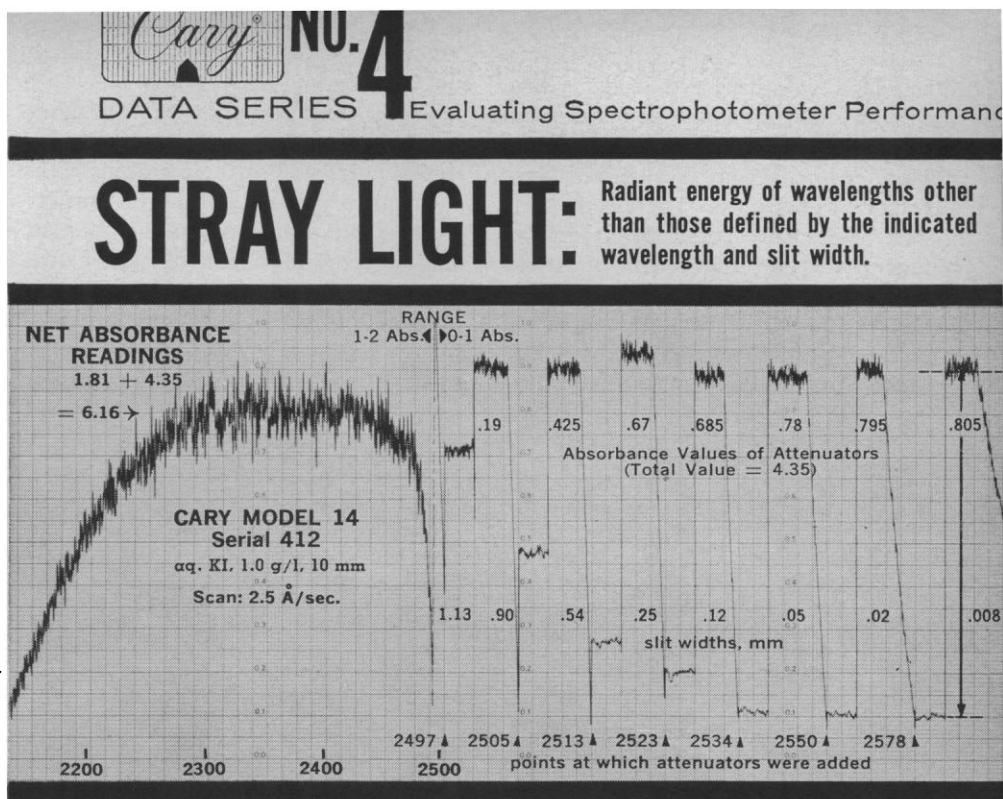
References

1. T. H. Jukes and C. B. Shaffer, *Science* **132**, 296 (1960).
2. M. H. Seevers, *J. Am. Med. Assoc.* **153**, 1329 (1953).
3. A. N. Booth, E. M. Bickoff, G. O. Kohler, *Science* **131**, 1807 (1960).
4. C. Huggins and K. Mainzer, *J. Exptl. Med.* **105**, 485 (1957).
5. C. Huggins, L. C. Grand, S. P. Birlanthes, *Nature* **189**, 204 (1961); C. Huggins, *Science* **133**, 1366 (1961).
6. O. G. Fitzhugh, A. A. Nelson, C. I. Bliss, *J. Pharmacol. Exptl. Therap.* **80**, 289 (1944).
7. E. L. Patterson, R. Milstrey, E. L. R. Stokstad, *Proc. Soc. Exptl. Biol. Med.* **95**, 617 (1957); various authors, "Symposium on nutritional significance of selenium," *Federation Proc.* **20**, 539 (1961).

Loyalty Oath: Another Viewpoint

Within recent years, the faculties of a number of American universities have voiced varying degrees of disgust, distaste, and dislike of the disclaimer affidavit required of U.S.-subsidized fellowship students. Some have established the policy of refusing to accept fellowship students who are subject to such an oath. Indeed, the precedent which seems to have been set by some of our most influential universities has led to the general assumption that those which accept students under such qualifications are betraying the ideal of academic freedom. As a teacher, I too vigorously cherish my right of academic freedom. Yet, there is a question as to whether the loyalty oath falls, at least in this case, within the scope of academic freedom. Personal freedom and national allegiance should certainly be compatible. If so, where does the problem lie?

There seem to be two basic objections to the requirement as it now stands, the first of which is felt by



Stray light of Cary Model 14 is less than 0.0001% over much of range, 0.1% even at range limits.

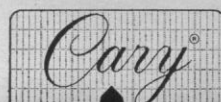
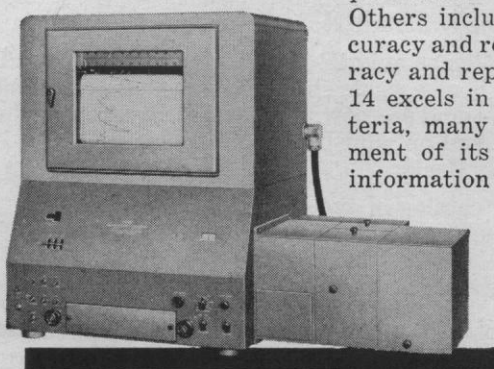
When spectrophotometers are operated close to the limits of their wavelength range, measurements are restricted by a combination of weak radiation from the source and/or poor detector sensitivity. In any spectral range, similar problems may be caused by absorbing solvents or use of the differential technique. Under these conditions, stray light lowers performance because it contributes a disproportionate amount to the total energy being measured. Also, the important advantages offered by high absorbance measurements—reduced errors due to contamination of cell windows, uncertainties in path length, etc.—can only be had if stray light is minimized.

For these reasons, the Cary Model 14 has been designed with a double monochromator so that stray light is extremely low. Measurements with excellent accuracy can be made over the entire spectral range of the instrument.

The spectrum illustrates one of the performance tests used in the manufacture of the Cary Model 14. A sample with sharp cut-off was scanned slowly toward shorter wavelengths, where its transmission is negligible. Calibrated optical attenuators were added, at the points indicated, to the reference beam to extend the absorbance range. A false plateau or peak is found above 6.0 absorbance (.0001% T). It is caused by stray light, which amounts to less than 1 ppm.

Stray light is just one of several important criteria on which spectrophotometer performance should be based.

Others include: Resolution, photometric accuracy and reproducibility; wavelength accuracy and reproducibility. Because the Model 14 excels in each of these performance criteria, many regard it as the finest instrument of its kind available. For additional information write for Data File E24-91.



INSTRUMENTS

APPLIED PHYSICS
CORPORATION
2724 South Peck Road
Menlo Park, California

practically all college teachers. One is the fact that prospective students take such an oath, while an equal demand is not made of numerous other groups and individuals who receive assistance from the same source. There is no basic difference in the intent of grants for student aid and the intent of grants which contribute to the solution of research problems, yet recipients of research grants need take no such pledge. In this respect, and perhaps only in this respect, is the government unfair for discriminating against these

fellowship students by making such a requirement.

Too, there is a real question whether the requirement actually serves its intended purpose. For those citizens without integrity, an affirmative answer presents no problems. In the face of this, does the requirement make a real contribution?

In spite of these objections, is a university justified in refusing to accept students who have been granted assistance with such strings attached? Should the institution accept other support from

a government which exacts a duty of this type? If integrity is to be maintained at the 100-percent level, all grants and assistance from the same source should be refused. Most of the schools which refuse to accept the students in question have no intention of boycotting the more substantial sums for research grants which their scientists receive.

Then, too, does the individual student have any rights in this matter? Are his own decisions less important than those of the university? The vast majority of faculty members, including those who oppose the loyalty oath, would be most vehement in insisting that students must be allowed to make their own decisions, insofar as possible. Yet, by declaration, those which will not accept "loyalty oath" students would deny them the opportunity of making their own choice.

But perhaps the most important problem, however, has little to do with whether it is morally right for the government to require the oath. Rather, does the university have a right to interfere with the making of a contract between the individual and his country? Should the university comment on either the validity or the desirability of such a compact? Certainly, no student or teacher need accept money or assistance of any sort under such a "stigma" if he is opposed. Since no decision or demand is required of the university, why should it concern itself with the contents of the contract?

However, the great bulk of objections from the academic world seem to lie in a generalized and rather nebulous feeling that individuals should not sign such a contract because it violates the freedom of thought or choice of an individual. This raises the question as to whether the constraints imposed by any kind of pledge or avowal of faith are unjust. Is it wrong to pay respect to the flag of one's country or declare faith in God? Should one refuse to enter one of the armed services or accept a job with the federal government because of the necessity for swearing allegiance? What about the pledge of intent when joining a professional or honorary society?

To take the oath is indeed a small price, if indeed it is a price, to pay for assistance. There should be no reason for aversion to repeating such an oath under any conditions or at any time that it is required.

We need have no concern that the loyalty oath presents an excessive de-

New

Nalgene[®]

5-gallon Solution Bottle

*one-fifth the
weight of glass
... and
infinitely safer!*



Nalgene Solution Bottles stand repeated autoclaving

SAFEST EVERY WAY! Blow-molded of virgin polypropylene—all the corrosion resistance of glass, in the most punishment-proof bottle you've ever seen! Drop it empty: it just bounces. Drop it full: it may crack, can't shatter.

Easily cleaned—can't sustain bacterial growth—*withstands repeated autoclaving*. Tooled to fit the standard No. 12 rubber stopper.

EASIEST TO HANDLE! Weighs only 2½ pounds (versus 11 pounds for glass). And wet or dry, it never gets slippery like glass. Next time you order, specify Nalgene—and see how much easier these new solution bottles are on you . . . and on your budget. Just check with your laboratory supply dealer.

WRITE Dept. 219 for new catalog of the complete line of Nalgene laboratory ware.

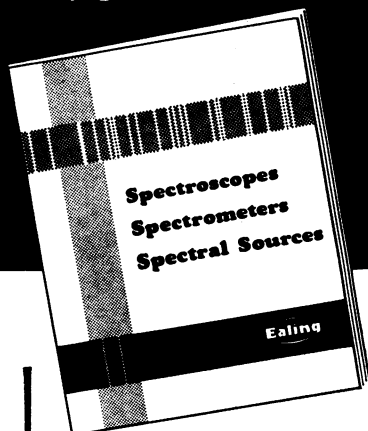


Nalge makes them unbreakable and keeps making them better!

THE NALGE CO., INC. ROCHESTER 2, NEW YORK

The Quality Standard of Plastic Laboratory Ware

A New CATALOG



Spectroscopes

The most complete list offered.
Hand - Diffraction - Prism
Wavelength Prism
Microspectroscope
Bunsen Kirchoff.

Spectrometers

Featuring instruments using the
spectrum reversion technique
developed by Hartridge.

Wavelength Diffraction
Direct Reading Reversion
Clinical Hartridge Reversion
Student - Advanced.

Spectral Sources

Osram Spectral Lamps.
New
Philips Spectral lamps.

THIS NEW CATALOG SENT
FREE ON REQUEST FROM:

THE **Ealing** CORPORATION

33 University Road,
Cambridge 38, Massachusetts

Telephone: Klrkland 7-5760
Teletype: Cambridge 62
Cable Address: Ealing

mand or hardship on any individual or university. It does not. At the same time, it sets aside college students as exceptions to the rule and, in this respect, is unfair.

In spite of the mild furor to the contrary, there is nothing basically wrong with the requirement as it stands, or contrary to our American way of life. However, unless it is applied in an indiscriminating manner, it should be abandoned. Let us hope that our legislators see fit either to make this requirement uniformly applicable, or to disqualify it completely.

FRANK W. WOODS
School of Forestry, Duke University,
Durham, North Carolina

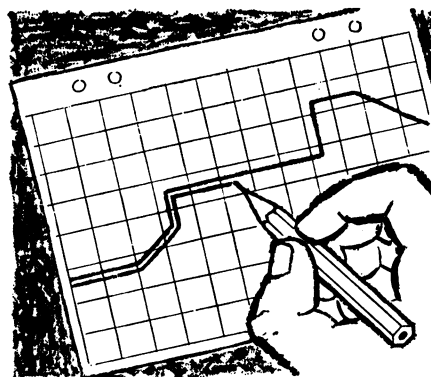
Soviet Commitment to Lysenkoism

From time to time, Soviet press releases relating to the status of Trofim D. Lysenko and his beliefs are republished in the United States, with home-grown "interpretations" frequently extended to predictions about all of Soviet agriculture, the economy of the U.S.S.R., and even international relations. In these conjectural pieces the ignorance of the authors about communism shines through more clearly than the scientific milieu for Soviet biology.

While traveling with the Comparative Education Society in the U.S.S.R. for 5 weeks in 1958, I made the following observations.

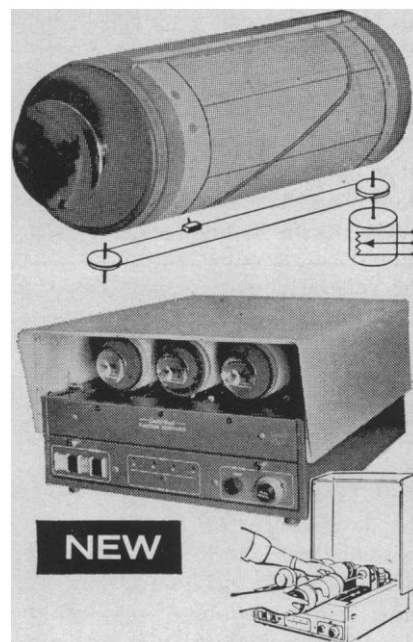
1) Young Soviet biologists have been thoroughly steeped in the assumptions of Michurin and Lysenko—a kind of neo-Neo-Lamarckism. They seem to be proud of a view which "opposes the 'Western' gene concept," and they cite the DNA's as evidence to support Lysenkoism. It is impossible to discuss in a brief space the level of their sophistication.

2) Academician Lysenko is, and has been, without interruption, a very important figure in the Communist Party and in Communist biological science for 20 years, and during that time his outlook upon the inheritance of acquired adaptations has been thoroughly embedded in every biology textbook and reference book to be seen, besides appearing frequently in books on philosophy and natural science in general. Lysenko is one of the eight editors of a five-volume encyclopedia of agriculture, and his 600-page *Agrobiologia* was revised in 1952. [For additional



Plot your program
with a pencil on
ordinary graph paper

DATA-TRAK[®]
will follow it



Now, with only an ordinary graphite pencil and graph paper, you can feed program instructions to automatic process controls. Data-Trak follows pencil-drawn graphs anyone can prepare. High degrees of accuracy and reliability result from use of unique capacitive curve-following principle. Potentiometer output is proportional to drawn curve.

Graphs last indefinitely because stylus doesn't touch the paper. Data-Trak drum speed is variable, can even be programmed automatically. Drum rotates continuously on some models for cyclic programming.

R I RESEARCH
INCORPORATED

Write P. O. Box 6164V, Minneapolis 24, Minn.