

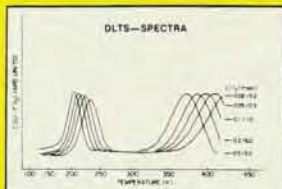
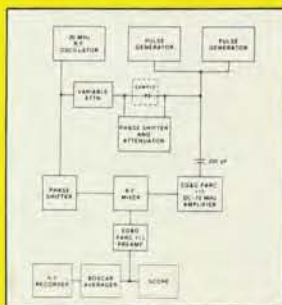
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letters

continued from page 15

conference was misused by the church. Incidentally, I discussed the attitudes of the Unification Church with some members of the Princeton Theological Seminary and they, on the whole, approved of it—surely did not offer any serious criticism thereof. Nor can I point to any. May I mention that I did participate also in conferences organized by the opposite political extreme, by communist governments and, luckily, was never reproached for that. (Of course, I am neither a communist nor a member of, or involved with, the Unification Church.)

E. P. WIGNER
Princeton University

7/21/80

Physics department data

I wish to suggest the collection and annual publication of basic information about the conditions of employment for teachers and researchers in physics in institutions of higher education. The purpose is to provide a complete survey for the US of the comparative conditions under which physicists work. Data recommended for collection in regard to teaching conditions should include: beginning salaries at each rank (instructor, assistant professor, and so on), number of faculty in physics at each rank, total number of students taking physics department courses, total number of physics majors in the given year (if any), percent change in number of physics majors since last year, departmental teaching equipment budget, department salary budget, average number of months between requesting equipment or supplies and receipt of same (both on contract and on open market), number of physics departments within a 25-mile radius, existence of requirement to publish research in order to teach, existence of faculty union, existence of required loyalty oath, and other factors to be suggested.

Initially, the survey could cover 2-year, 4-year, and MS-granting institutions (not necessarily with a physics major) that are state-supported. Many of the above factors would be uniform over a state and therefore the information could be summarized by state. The benefits of having this information available seem obvious for both prospective and actual physics faculty. Collecting the data might be easiest from the department chairman or one AIP member in each department. Physics faculty at a school with "favorable" data on most of the above factors would find it beneficial to have their position known to all other members of the physics community. Faculty at insti-

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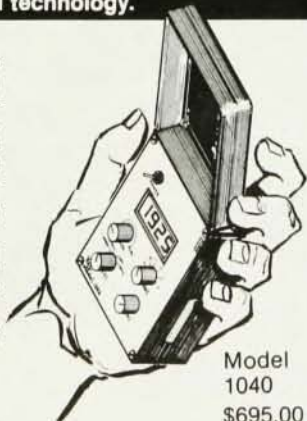
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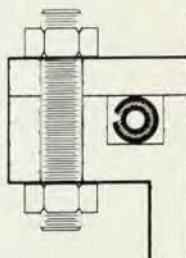


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letters

tutions with data not favorable on most of these factors would be more able to work toward improvement of their situations, if given nationwide data for comparison. Ultimately the results could be tabulated in parallel with the existing AIP directory of all institutions that teach physics. Persons using it could make more careful assessment of open positions, and achieve greater compatibility with the institution at which they choose to work.

JOHN H. MAULDIN
Winona State University
Minnesota

4/4/80

Chicago and ERA

As the head of a physics department with significant women enrollment—30% overall and nearly 40% of the freshman and sophomore classes—I took particular note of the full-column ad of the Optical Society of America in the Calendar Section in July, which urges our participation with them at the Annual APS Meeting in Chicago, 13–17 October 1980.

It seems appropriate to reiterate a stance that I took in these pages a few years ago.

No! I will not join with some colleagues at the Chicago meeting. In fact, I choose not to attend any function in Chicago or in Illinois or in any other State that refuses to ratify the ERA.

I am disappointed, but not surprised, that the APS continues to schedule Society events in non-ratifying states.

In lieu of any large-scale action, I hope that colleagues who share these feelings will strike a small blow for human rights by joining with me and others in passing up the Chicago meeting and other activities in Illinois, Louisiana, Florida, Nevada and so on.

GERALD A. FISHER

San Francisco State University

8/4/80

San Francisco, California

More on microfabrication

In two recent letters concerning the use of ion beams for lithography, the question of the relative sensitivity of polymer resists to ions versus electrons was raised (April, page 13). Our results¹ do not support the conclusions reached by R. Spohr and B. E. Fisher. We agree with them that as the deposited energy per particle increases, that is, as dE/dX increases, the exposure dose decreases as expected. Thus fewer ions are required to expose a resist than electrons, since each ion deposits more energy than an electron. However, we have found that the dose decreases nonlinearly as dE/dX increases. Thus the more fundamental measure of resist sensitivity—namely deposited energy