

door to discussion within APS of any issue under the sun, a discussion that would be hopelessly divided between the merits of the particular issue and the appropriateness of the issue as a matter of concern to APS.

Speaking of the substance of the amendment, I would be in favor of a change that would allow a discussion within APS of issues directly pertaining to the work of its members as scientists. Such issues would include topics like scientific priorities, scientific aspects of foreign aid, the impact and the connection of science with governmental agencies such as the Department of Commerce, Department of State, Department of Housing, etc., the allocation of national resources for scientific research, the social structure of scientists themselves, and many others. I feel that these are issues that at least partially match the special competence

we are supposed to have; therefore their consideration would be a significant contribution to ourselves and to society as a whole.

I would be very much opposed to allowing APS to discuss general public issues. Each of us, as an individual, has innumerable outlets for such activity, including some organizations especially geared to scientists. Dragging APS into this would be quite superfluous. In addition, I am also very sensitive to any trend that might result in public statements by APS on issues in which we have no special competence. Such statements would necessarily carry in the public mind a false tinge of importance and authenticity just because they are utterances by scientists who, according to the contemporary myth, have at least the key to the solution of all problems by their "objective," "scientific" method.

MICHAEL J. MORAVCSIK
University of Oregon

Subcritical and no joke

The "Search and Discovery" department in the September issue struck a jarring note with the comment, "With a little effort you can become the only kid on your block," using a "Smallest Nuclear Reactor." The essential point in the associated work was exactly the opposite. Presuming complete ignorance of criticality safety work, it is still impossible to make less than about 1 kg of U^{235} supercritical unless you work with water solutions in a large volume of a good moderator such as beryllium, graphite, or heavy water. Using much less than 1 kg, for example, the 242 grams quoted, you are completely safe from a nuclear transient in any geometry—and that is very nice to know. There has been such a great deal of nonsense connected with the possibility of a nuclear reactor exploding that I noted the editor's tacit agreement with much regret.

CARROLL B. MILLS
Los Alamos Scientific Laboratory

Environment and medicine

I would like to congratulate *PHYSICS TODAY* and Albert Crewe for the excellent article "Science and the War on . . ." (*PHYSICS TODAY*, October, page 25). It is encouraging to see a person

of Crewe's stature calling us to task. The complexities of the problem of uncluttering our environment are enormous and will require the concerted effort of all professionals, as professionals.

We at the American Medical Association are focusing in on the medical aspects of environmental pollutions and how the medical profession can attack the problem. Only by the combined efforts of professionals from various disciplines do we have a chance of cleaning up our environmental septic tank.

GORDON R. ENGBRETSON
Department of Environmental Health
American Medical Association

In support of applied research

Problems of the types described in Albert V. Crewe's article (*PHYSICS TODAY*, October, page 25) exist in an atmosphere of social, economic and political pressure. Such an atmosphere is not conducive to free investigation and, consequently, is shunned by scientists as investigators. The result is often a general disdain by scientists for applied research. Applied research is viewed as being subject to corporate and government pressure and tackled with shoddy thinking.



**IF HYCAM
IS SO GOOD...**

**HOW CAN IT
BE SO CHEAP?**



This is a question we are often asked. How can the most advanced 16-mm high-speed rotating-prism camera in the business, having the widest speed range and the greatest number of exclusive features, also have the smallest price tag of them all?

The answer is: Simplicity of design minimizes manufacturing cost. Image quality is assured by assembly of the shutter, prism, and sprocket on a single shaft. **No gears!** Simplicity pays dividends.

Three years have made Hycam the front runner in the market. Just talk to any Hycam user if you want the real story. If you don't know a user, ask us. We suggest you start by reading our literature. Send for data file 180189

Or, see our 16-mm sound film,
"The Hycam Story."

Red Lake Labs

2971 CORVIN DRIVE
KIFER INDUSTRIAL PARK
SANTA CLARA, CALIFORNIA 95051
TELEPHONE (408)-739-3034