

New Ampholytes from Bio-Rad

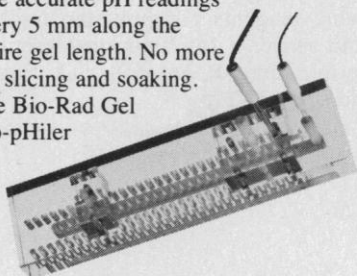
New Bio-Lyte[®] carrier ampholytes for isoelectric focusing are now available from stock in one wide working pH range (Bio-Lyte 3/10) and in six narrow pH ranges, Bio-Lyte 3/5, 4/6, 5/7, 6/8, 7/9 and 8/10. (The product designations are indicative of the working pH range.)

Made of polyamino-polysulfonic acid, the Bio-Lytes are ideal for use with a polyacrylamide gel as the stabilizing medium, either by substituting directly for the ampholytes you are now using, or by following the suggested formulations in Bio-Rad's Bulletin 1030 or in the instructions that accompany each Bio-Lyte shipment.

Bulletin 1030 has all the details, including pH profiles, actual separations and complete pricing. It also contains information on the new Gel Pro-pHiler described below.

Gel Pro-pHiler

With the new Gel Pro-pHiler, miniature pH electrodes and a pH meter, you can take accurate pH readings every 5 mm along the entire gel length. No more gel slicing and soaking. The Bio-Rad Gel Pro-pHiler



holds a cylindrical gel in position so you can measure the pH profile of a gel as soon as it is removed from its tube. When you are finished, the gel emerges virtually undamaged and ready for staining.

If you are using isoelectric focusing, or if you suspect you should be, then write for Bulletin 1030. You'll find everything you need for this proven method of separating proteins.

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LETTERS

Soviet Arrests Continue

The Soviet physicist Andrei Tverdokhlebov has been arrested. In 1970, he, together with A. Sakharov and V. Chalidze, founded the Moscow Human Rights Committee. More recently he became the secretary of the Soviet group of Amnesty International. The biologist S. Kovalev, another member of this group, was arrested last December.

Sakharov and Shasarevich (a distinguished Moscow mathematician) applied for the release of these men. In an "Appeal to American scientists" Chalidze wrote:

... these repressions involve serious scientists who, despite their public activity and pressure from the regime, have continued scientific work ... persecuted Soviet scientists have no defense other than to hope for the support of the international scientific community.

We initiate the creation of a Scientists' Committee for Tverdokhlebov. Interested colleagues are asked to write to one of us.

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Graduate Astronomy Programs

The recent recommendation by the National Academy of Sciences' Astronomy Manpower Committee to discourage graduate education in astronomy was reported in the 18 April issue of *Science* (Research News, p. 246). It is clear from reading the full report (1) that the intentions of the committee were good. Nevertheless I feel that, as chairman of a department that carries the name of astronomy, I must register my disagreement with that recommendation.

First, the recommendation may backfire. If the graduate program is reduced, so is need for faculty to maintain that program. With the present strong financial pressures on colleges and universities, the

total faculty pool may well be cut. Thus the recommendation threatens to set off a vicious cycle that will exacerbate, not abate, the shrinking job market.

Second, a problem exists only if astronomy programs are set up to produce narrow specialists who are unfit, at least psychologically, for any other work. In that case the problem lies in those programs and not in the trivially obvious fact that one cannot have zero population growth in a population that attempts to replicate itself once every year or two. The solution we have adopted is to create a broader interdisciplinary approach so that a degree in astronomy does not restrict its recipient to work only as an astronomer. A few of the best and the luckiest remain in astronomy. The others are able, and feel that they are able, to use their ability and training in problem-solving in the physical sciences to work productively in government or industry. Our graduates are all finding good, useful jobs in which they are successful. They are not overly concerned that these jobs often do not involve a simple extension of their thesis research. There are undoubtedly other approaches to the problem, but the interdisciplinary one has worked well at Rice University.

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References

1. Astronomy Manpower Committee, Committee on Science and Public Policy, *Employment Problems in Astronomy* (National Academy of Sciences, Washington, D.C., 1975).

Far-Out Diets

The Point of View "Stamp out food faddism" (News and Comment, 16 May, p. 714) is a curious mixture of emotion and inaccuracy. It says that "[o]ur far-out diet—almost 20 percent refined sugar and 45 percent fat—is new to human experience." New indeed, as anyone who has ever mixed or analyzed a laboratory diet could tell the anonymous author. American diets commonly supply about 42 percent of food energy as fat (1). Fat has a caloric content 2.25 times that of carbohydrate or protein, so this is equivalent to 25 percent, not 45 percent, of the diet, not counting roughage and minerals, which bring the fat content down to 20 percent or less.

The author implies that our great-grandparents ate diets of raw broccoli, wheat germ, and yogurt, but does not mention