

## LETTERS

## Ge(Li) beans

SOMETHING TO CHEW ON.

**How many take PSSC?**

I am writing about the article on the PSSC course, by Uri Haber-Schaim, in the March *PHYSICS TODAY*. Haber-Schaim states that the "PSSC course in physics is used in its entirety by more than half the high-school students taking physics in the United States." Perhaps his enthusiasm for PSSC has carried him away, but it is about time that someone spoke publicly about the hyperbole technique which he and others are using, either deliberately or naively. We are familiar with the use of this technique in politics, but it should not be allowed to penetrate the field of science. As any high-school physics teacher knows, the PSSC course is used by only a very, very small percentage of students in the country. In fact, if the quote "used in its entirety" were taken literally, the percentage would approach zero.

Statements from the United States Office of Education indicate that roughly half a million students take high-school physics in the United States. Actual sales figures on our textbooks, *Modern Physics* (Charles E. Dull, H. Clark Metcalfe, and John E. Williams) and *Foundations of Physics* (Robert Lehrman and Clifford Swartz) prove beyond any doubt that more than half of the high schools in the country are using Holt textbooks in physics. I must assume that some students are using other physics textbooks, else other publishers would long since have stopped publishing them.

I am confident that Haber-Schaim cannot substantiate his statement. I am, admittedly, biased in my viewpoint. Therefore, I suggest some data gathering on this subject by a disinterested agency. I feel secure that such an approach would reveal that Haber-Schaim's statement is propaganda, apparently designed to perpetuate the myth that PSSC has produced a widely accepted course in high-school physics. Perhaps *PHYSICS TODAY*, undoubtedly a disinterested agency, would like to do some data gathering in the true spirit of science. If not, I trust that you will at least publish this

letter in a future issue of your magazine. In the interest of fair play, not to mention the scientific integrity, this matter deserves public airing.

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Holt, Rinehart and Winston

**Alienation by boredom?**

Mark Zemansky conjectures in the March issue of *PHYSICS TODAY* ("Too Far, Too Fast?") that his disenchantment with the present trend toward the employment of highly advanced and sophisticated physics in introductory college courses may stem from his concern about the drop in high-school and college enrollments in physics.

I suggest that part of this drop in college enrollments might result from a course in "college physics" which, as Zemansky describes earlier in his article, is intended to "...make up for a possibly weak high-school course and to weed out the poor students." I would hope that the introductory course would devote significant efforts to showing the student what makes physics a worthwhile enterprise for the exercise of the human intellect. In the process of making up for a poor high-school course and weeding out the poor students, are we not alienating many potentially good physics majors by boring them to tears? Today's students are less willing to put up with this than were their predecessors.

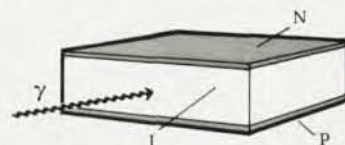
The approaches advanced in Kenneth R. Atkins's *Physics* and Arnold Arons's *Development of the Concepts of Physics* (with which Zemansky disagrees) constitute two superb efforts at dealing with this problem, the former by showing the students what physicists regard as interesting today and the latter by emphasizing the place of physics in the evolution of our culture. Relevance is important.

Although I share Zemansky's concern over the highly sophisticated introductory courses, one must admit that they challenge the intellects of highly talented students and may thereby prevent their alienation by the more pedestrian approaches. It may be, however, that the approaches of Atkins and Arons will interest both the

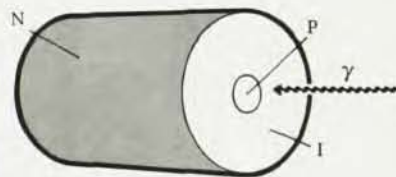
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