# HOW IMPORTANT IS VACUUM TO YOUR WORK?



#### ...Think Ultra Clean Vacuum

5×10-7	Typical High Vacuum System Base Pressure
5×10 <sup>-9</sup>	Ultra Clean Vacuum System Base Pressure
Pressure	

Eliminate the gray area by starting your application at  $5\times10^{-9}$  torr with our UCV system.

# The ULTRA CLEAN VACUUM system offers:

- Two (2) decade better base pressure
- Small 32" × 48" footprint for cleanroom
- Work space at 40" within footprint
- Multiple access thru ten (10) ports
- Easily upgraded to UHV fully-bakeable system

All this for conventional dollars to beat the budget restriction blues...





# Who else gives you this choice?

Meet us in Boston / National AVS / November 1, 2, 3, 1983 / Booths 509, 608, 705

### KURT J. LESKER COMPANY 5635 Horning Road Pittsburgh, PA 15236



Vacuum Science Is Our Business

Sales offices in Pgh., PA; San Ramon, CA; Dallas, TX; Westwood, MA; and Ramsey, NJ

Toll-Free: 800-245-1656 IN PA: 800-242-0599

AVS Show Booths 509, 608, 705

Circle number 90 on Reader Service Card

# letters

8/83

programs, neither do I. However, I am convinced by personal contacts with many of our alumni, some years after we have had them, that we were a strong, positive influence in their lives. Of course we are only a drop in the bucket, but my colleagues and I feel this to be a most worthwhile drop.

MILTON GOTTLIEB Westinghouse Electric Corporation Pittsburgh, Pennsylvania

#### High-school sabbatical

The June editorial (page 128) suggests that people in academia and industry may contribute, by active participation, to the goal of excellence in science and math education.

I have met my part of this obligation by taking a year sabbatical from teaching high-school physics and joining the corporate R&D staff of Pitney Bowes in Norwalk, Connecticut; I worked as a consultant and participant in the physics and chemistry laboratory there for the past academic year. My earlier experience in industry (25 years ago) was updated by contact with today's technology.

I shall return to the classroom this year with a greater appreciation for the "real world"; I now believe that both my physics and career-counseling skills

will have improved.

8/83

I hope that more high-school science and math teachers will apply for sabbaticals; I also hope that industry will support this concept in a way that will cover as many disciplines as possible.

Nicholas J. Georgis Staples High School Westport, Connecticut

# Origins of great scientists

With reference to the letter by Tung Tsang (June, page 101), I agree with him that it is not correct to say that before the 20th century "most scientists were independently wealthy gentlemen"-although Robert Boyle, Henry Cavendish, James Prescott Joule and Benjamin Franklin fall in that category. Stephen Gray, who discovered electrical conductivity, was a pensioner with no income; Johannes Kepler was a poorly paid calculator; Nicolaus Copernicus was a bishop's clerical assistant. Many great physicists were professional physicians-Thomas Young, William Wollaston, William Gilbert, Georg Ohm, among others. I would call all of these men amateur scientists, in the sense that their work was done for the love of it, not for a living. On the other hand, I would call a man who makes a success-