

## letters

ence. If we are about teaching, then a person who happens to be our student during part of their life is our focus and we spend the majority of our time and energy developing teaching styles and techniques to stimulate and encourage them to love physics as we do. If we choose to be a physicist, we research and write and explain to teachers what we have learned about the world and let them teach it! Although we would all like to think we are both teacher and physicist, for all but a very small percent of us this is wishful thinking. A master teacher is as skilled and profound in the art of teaching persons as an Einstein or Dirac is in the act of unveiling some of the underlying realities of our world. Do you really believe that?

The crisis in physics education is that we spend too much little time, research and involvement with the persons we call students. Student's desire to experience physics will grow in proportion to our ability to teach students about physics rather than teach physics to students! Students will have a way of getting the word around!

HORACE B. LUCIDO  
De La Salle High School  
Concord, California

3/82

## Solar correction

In the interests of accuracy, I would like to make a small correction to the caption for the cover photograph of a solar prominence on the cover of the April issue (page 3). The image is, indeed, computer-enhanced and from Skylab, as the caption states; however, the original was a digital spectrogram and not a photograph. The confusion probably arose because there were two uv telescopes on Skylab, one photographic (Naval Research Lab) and the other photoelectric (Harvard College Observatory). The cover photograph happens to be one of eighty HCO pictures published in *A New Sun, The Solar Results from Skylab* (J. A. Eddy, NASA). These and many other such HCO digital images were prepared by myself and John Lyon at Johnson Space Flight Center using image enhancement hardware and software developed for the analysis of Earth imagery obtained by the Landsat program.

The particular picture on the cover of PHYSICS TODAY shows the outermost skin of solar prominence, where the temperatures range from  $10^4$ – $10^6$  K. This regime is visible only in the extreme ultraviolet and was studied exhaustively in the years following Skylab by means of such euv images.

E. J. SCHMAHL

University of Maryland  
College Park, Maryland

5/82

Referee's Report on Research Proposal No. \_\_\_\_\_  
Submitted by \_\_\_\_\_ Name of applicant \_\_\_\_\_  
TO \_\_\_\_\_ Name of funding agency \_\_\_\_\_

This research proposal is very brief and vague. The goals and implications of the proposed research are not stated precisely. The research area is a very active branch of physics, to which the applicants have already made significant contributions. Whatever they will find next is likely to be interesting. I therefore recommend funding this research.

This research proposal is very detailed and its goals are precisely set. The implications are stated clearly. There is a detailed time table for the future discoveries. A research so carefully planned is not likely to bring any surprises and therefore is not interesting. I regret to be unable to recommend funding.

DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

## Standard referee's report

Funding agencies have streamlined their paperwork by having standard questionnaires for grant applications and for referees' reports. As I occasionally am a referee, I have prepared a standard report (see figure) to reduce my own paper work. Just fill in the blanks and tick the right answer!

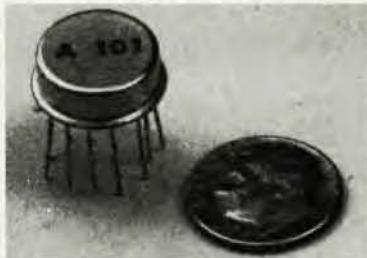
ANSWER  
1/82  
ASHER PERES  
Haifa, Israel

## Creationism

It is hard to convey my feelings about the news item on creationists (February, page 53). That in our age science could possibly have to get involved in arguments of this sort is in itself mind-boggling. Is this really happening in a nation that receives the most science Nobel prizes each year, that shows to the world close-up photographs from the outer reaches of the solar system? Or is this a sign of just what kind of freaks a democratic system has room for? Or are these the first outgrowths of a deteriorating education system? What, for example, happened to Berkeley biochemistry that one of its PhD graduates manages to say something to the effect that "there are only two models on origin, so any evidence against one is proof for the other." I had to rub my eyes twice before I actually believed I had read this! Never mind arguments about specific issues and factors of  $10^7$  in the meteoric influx rate. If there were anything to creationism, three hundred years of exact science would have pointed towards it, not away from it. It is the fact, however, that creationists start to fiddle with public-school science classes that turns this whole issue from a hilarious idiocy into a possible nightmare.

Meanwhile, space science and nu-  
continued on page 80

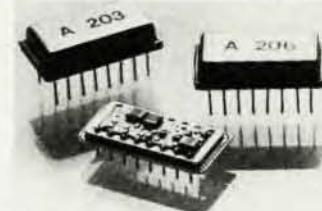
## NEW PRODUCT CHARGE SENSITIVE PREAMPLIFIERS



Models A-101 and A-111 are charge sensitive preamplifier-discriminators developed especially for instrumentation employing photomultiplier tubes, channel electron multipliers (CEM), microchannel plates (MCP), channel electron multiplier arrays (CEMA) and other charge producing detectors in the pulse counting mode.



Models A-203 and A-206 are a Charge Sensitive Preamplifier/Shaping Amplifier and a matching Voltage Amplifier/Low Level Discriminator developed especially for instrumentation employing solid state detectors, proportional counters, photomultipliers or any charge producing detectors in the pulse height analysis or pulse counting mode of operation.

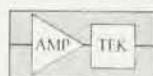


### FEATURING

- Thin film hybrid technology
- Small size (TO-8, DIP)
- Low power (5-18 milliwatts)
- Low noise
- Single supply voltage
- 168 hours of burn-in time
- MIL-STD-883/B
- One year warranty

### APPLICATIONS

- Aerospace
- Portable instrumentation
- Mass spectrometers
- Particle detection
- Imaging
- Research experiments
- Medical and nuclear electronics
- Electro-optical systems



AMPTEK INC.

6 DeAngelo Drive  
Bedford, Mass. 01730 U.S.A.  
Telephone: (617) 275-2242

With representatives around the world

Circle number 15 on Reader Service Card

# Plasma power. 13.56 MHz power sources



**with  
tolerant  
dispositions,  
and  
hearts of  
solid state.**

Advanced, solid-state rf power sources from AR. Four models from 100 watts to 2000 watts minimum guaranteed power.

Guaranteed.

#### Load-indifferent.

Low-Q output sections and a unique low-pass filter design tolerate any load variation, eliminate matching problems, and reduce harmonic distortion to better than 30 dB below rated output.

AR power sources deliver rated power to an open cable or dead

short, without damage.

#### Modest size.

Compact AR sources don't eat into clean-room space. Hide them away: program output power, and monitor output and reflected power, through a single control cable.

Power sources with sweet dispositions, from AR. Call or write for more information.

**ar** **AMPLIFIER  
RESEARCH**

160 School House Road • Souderton, PA 18964  
Phone 215-723-8181 • TWX 510-661-6094

## letters

continued from page 15

clear power should have taught us, as Harold Davis politely suggests, to "reasonably hope that these efforts on the part of the scientific community will help ensure that reason prevails." . . .

Instead, I recommend that the scientific community employ all means, from a task force to dedicated funds to lobbies to countersuits at every occasion (with careful attention towards the news media) to get this "previously controlled disease" back in Pandora's box and to screw the lid on good.

G. F. ALBRECHT

University of Rochester  
3/82 Rochester, New York

## Physicist identified

In April, on page 43, is a picture of Hideki Yukawa and Richard Feynman with several other physicists. The unidentified individual is Koichi Mano, a colleague of mine. For many years he has been at Hanscom Air Force Base, first with the Air Force Cambridge Research Laboratories, and now the Electromagnetic Sciences Division of the Rome Air Development Center. Mano did his doctorate with Feynman at the California Institute of Technology. The picture itself was taken, according to Mano, in the summer of 1955, not 1954.

RONALD G. NEWBURGH  
Hq. Rome Air Development Center  
5/82 Hanscom AFB, Massachusetts

## Extraterrestrial embarrassment

What will those extraterrestrial members of the AIP think about earthling chemical knowledge when they receive the March issue? I refer to the figure on page 32: an atom of  $H_2$ ???

DAVID BOUNDS  
3/82 Poughkeepsie, New York

## Nobel-prize women

I have just been reading your February issue and noticed the article about Maria Goeppert Mayer by Robert G. Sachs (page 46). Your readers might be interested to know that Mayer was the fourth woman to win a Nobel Prize in science, not the third as Sachs has suggested. She was preceeded in that honor by Marie Curie (physics, 1903, and chemistry, 1911), Irene Joliot-Curie (chemistry, 1935), and Gerty Cori (physiology/medicine, 1947).

This, of course, doesn't change the fact that she was one of very few women to win a Nobel Prize.

LAUREL G. SHERMAN  
3/82 Oberlin, Ohio

Circle number 41 on Reader Service Card