

ning to attract fewer admirers—even if she spends more on cosmetics. Isn't that what's happening to physics? In the self-imposed scale of values of physics, which puts fundamental new insights first and downgrades discoveries that are explainable in terms of known principles, no first-rate exciting advances (comparable to electromagnetism, relativity or quantum physics) have been made for 30 years, and the glamor is wearing off.

Maybe it is quite healthy under the circumstances if only true lovers choose physics; maybe physicists should also realize that nowadays many nonphysicists seem to admire physics primarily as a source of superb experimental technology and no more as a source of deep insights.

PETER J. HUBER
Zürich-Gockhausen, Switzerland

Spectral lines from pulsars

In your August article on pulsars a suggestion is made that there are "lines" in the radio spectra of pulsars (box on page 46). The raw observation is that the instantaneous bandwidth of individual pulses or groups of pulses is quite narrow—100 kHz or less at a frequency of 80 MHz. At no time at the Trieste symposium was it suggested that these data indicated "lines" in the usual spectroscopic sense. Judging from my correspondence, however, a strict interpretation has been placed on "lines" by a number of your readers. Whether this fine structure in the spectrum is inherent in the source—or is imposed by the intervening medium—we do not know. There is no suggestion that the pulsars are emitting at specific radio frequencies.

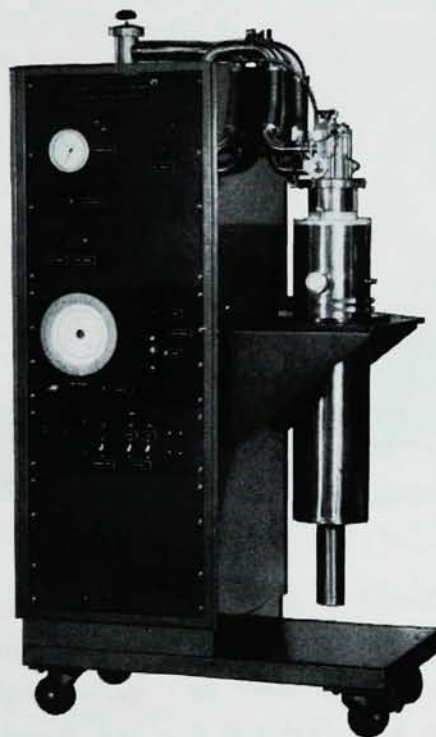
JOHN G. BOLTON
CSIRO, Radiophysics Laboratory,
Australia

FROM THE AUTHORS: We regret our choice of the word "lines" in the brief discussion of results reported by Bolton at Trieste. A preliminary text of the "Pulsars" article was circulated to many of our colleagues for comments, but it did not include the box on "Latest Pulsar News," which referred to the spectral "lines."

STEPHEN P. MARAN
Kitt Peak National Observatory
A. G. W. CAMERON
Yeshiva University □

The JANIS He³ Refrigerator

is a reliable "package" which is both compact and simplified in technical design. It can save a lot of do-it-yourself time.



An informative brochure gives you the facts. Ask for it. Meanwhile, to whet your appetite, here are some excerpts:

- *top access* to the chamber permits total immersion of sample in HE 3 vapor.
- *refrigeration range* 0.35° and below through 1.0°K and above.
- *18+ hours* running time.

THE GENERATION GAP is being closed. We have extremely low temperature dilution refrigeration in test stages. While not proved in use like the JANIS He 3, we are confident and willing to talk about it.

Bulletin R868 describes the JANIS He 3 Refrigerator.

JANIS RESEARCH CO., INC.

24 Spencer St., Stoneham, Mass. 02180
Telephone (617) 438-3220

Janis — Innovation in cryogenics