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letters

ronmental Teach-In that demanded a total ban on *all* pesticides. Or I could quote Pearson's own statement that "the Luddites were ahead of their time"—which agrees with the ecology movement leader Kenneth Watt that 1800 was a year in which industrialization had proceeded about as far as it ought to.

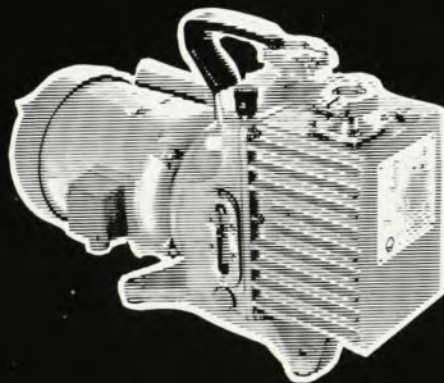
"Do I believe that there is an ecology crisis?" On the basis of such "evidence" as the ecology movement cites, I do not. In this belief I find myself in agreement with Lee A. DuBridge (*US News and World Report*, 19 Jan. 1970) and with Robert S. Hanson, Director of the Ames Laboratory at Iowa State University (*News of Iowa State*, Nov.-Dec. 1970).

Physicists might consider whether there is any relation between the anti-scientific propaganda of the "ecology" movement and the sharp reduction in governmental and public support for scientific research in recent years. Science is being depicted in "ecology" literature as part of the problem, not as part of the solution. As John Leonard said in a review of Rene Dubos's *Reason Awake* (*New York Times*, 27 May 1970): "We can no longer afford the luxury of a scientific establishment operating on the assumption that any old pursuit of any old truth deserves subsidizing. . . . If the scientist doesn't worry about [morality], the society sponsoring his work should chop down the money tree."

John Boardman
Brooklyn College

Refereeing or thought control?

I wish to second J. G. Bellak's statement (November, page 15) that "professional journals exist to allow workers . . . to be heard . . . regardless of the opinions of others Hence the question of refereeing is inane, except as a limiting monitoring function against writers who are obviously incompetent." Therefore, although journals need editorial guidelines to protect readers from irrelevant papers (such as one discrediting quantum jumps for religious reasons, say), it is inadmissible censorship when one or even three referees try to block an article as incompetent when their own private but precious standpoint differs from that of the author, or when they are incapable of seeing the point at issue. Imagine now that the rejected article, printed eventually after much delay, evokes great interest among its readers, as shown by its drawing scores of requests for reprints, dozens of letters of acclaim from all over the world, plus numerous invitations to give lectures on the forbidden subject, and so forth. Does this not raise the question of who is incompetent, the author, or the editor



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with his choice of his three referees, or the latter acting like three blind mice? Unfortunately, this is not an imaginary case. It is scored here as a particularly crass example of irresponsible censorship amounting to thought control. It may support the more general warning contained in Bellak's letter.

Alfred Landé
Ohio State University

Previous hyperonic atoms

Page 17 of your November issue carries a report describing the "discovery" of sigma-hyperonic and anti-protonic atoms by the Backenstoss group at CERN. A similar report also appeared in a recent issue of the CERN *Courier*. I should like to point out that several papers concerning earlier observation of lines from sigma-hyperonic atoms have already appeared in print. C. E. Wiegand and R. Kunselman¹ have reported a sigma line in potassium. The NAL-Argonne group (S. Berezin, G. Burleson, D. Eartly, T. O. White and I) have assigned several lines following kaon capture in light elements to this source—in particular, the M_{π} and M_{σ} lines in lithium. Backenstoss has been quoted as mentioning the Wiegand observation, but for reasons I have not been able to understand, fails to mention our considerably more extensive work.²⁻⁴ As we pointed out, there are some interesting discrepancies in these observations; but any other assignment of origin to these lines, especially in lithium, still seems most implausible.

References

1. C. E. Wiegand, R. Kunselman, Argonne Conference on Hypernuclear Physics, Vol. 2, 669, 1969.
2. S. Berezin, G. Burleson, D. Eartly, T. O. White, A. Roberts, in *High Energy Physics and Nuclear Structure*, page 512, Plenum, New York (1970).
3. S. Berezin, G. Burleson, D. Eartly, T. O. White, A. Roberts, *Nuclear Physics B16*, 389 (1970).
4. S. Berezin, G. Burleson, D. Eartly, T. O. White, A. Roberts, *Phys. Rev. A2*, 1623 (1970).

Arthur Roberts
National Accelerator Laboratory
Batavia, Illinois

Interrelated realities

In his review of "Concepts of the Universe" by Paul W. Hodge (November, page 53), Wolfgang Rindler attempts to stem the spreading of the erroneous view that event horizons are unphysical. In so doing, however, Rindler erroneously grants the point that such horizons do not exist in special relativity. The well-known example (see P. G. Bergmann, "The Riddle of Gravitation," of Chapter 15, Scribner's, New York, 1968) of the event horizon seen by

an observer doomed to live forever on a constantly accelerated rocket ship—in special relativity *without* superluminal velocities—should therefore be mentioned: The union of the past light cones from the ship's world line is only a "half space" bounded by a hyperplane; also the less empirically significant union of future cones is a distinct "half space," these two half spaces share a common "quarter space," and there is even a "quarter space" of events that belong to neither. (These latter are the events that are able neither to send light to nor to absorb light from the ship's world line.) Granted that it is easier to get well off the rocket ship (never to return) than to actively penetrate a cosmological horizon, it is important to consider both the observer who stays with the ship and the messenger who leaves the ship. Even in general relativity, an observer can send out messengers who eventually see different horizons (for example, the suicide mission into a "black hole"). Messengers who will see beyond the horizon but who (therefore) can not return make it impossible to deny reality to events over the horizon. The interesting philosophical moral is that we already have a plurality of inter-related realities, even prior to quantum mechanics.

Elihu Lubkin
The University of Wisconsin—Milwaukee

The reviewer comments: Elihu Lubkin is of course right in saying that, even in special relativity, suitably *accelerated* observers can have event horizons. What I meant, and therefore should have written, was that such things do not happen in special-relativistic *cosmology*, where the observer-carrying galaxies move inertially and are *not* rocket-propelled.

Wolfgang Rindler
The University of Texas at Dallas

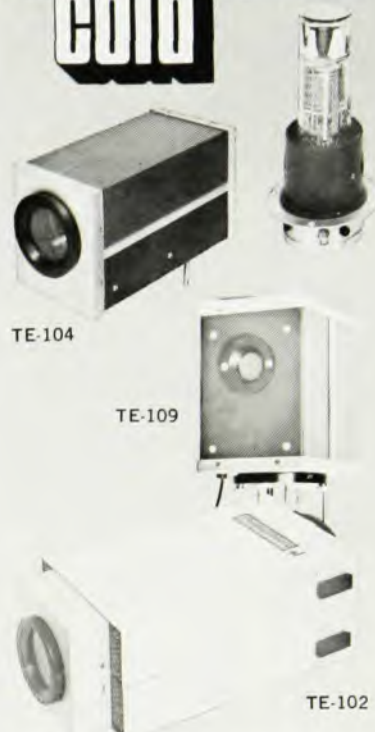
First tunable and visible

"Search and Discovery," in your January issue (page 19), claims that "the Kodak laser is the first cw tunable source in the visible range," but I believe this statement to be erroneous. *Applied Physics Letters* of 1 August 1968 includes a paper by R. L. Byer, M. K. Oshman, J. F. Young and S. E. Harris, all of Stanford University, which reports tuning a cw parametric oscillator from 6800 Å to 7050 Å. Since then, some of the authors and others have extended the tuning range in the course of commercial development.

Donald L. Weinberg
Western Electric Company
Princeton, N.J.

The editor comments: Weinberg is correct. The Kodak laser is the first cw tunable laser. □

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