

letters

of persons such as Eitan. His "state of parasitism" is a direct result of his dismissal from the Moscow Physics Technology Institute in 1967 when he openly spoke in favor of Israel. As a result he was subsequently denied any possibility of work ever since. Eitan and his wife Alexandra have been methodically harassed by the authorities, but they are steadfast in their fight for permission to emigrate to Israel. The matter is now coming to a head. Eitan now faces either prosecution and committal to a labor camp or a slim hope of being released and allowed to emigrate.

Based on informed sources, a major factor in determining what action the Soviet authorities will actually take in such a situation depends on whether or not there is significant reaction and letters from people in the western world. Your action in a case such as this can literally make the difference between life and death.

For detailed information on where to write, please contact me at 32 Taylor Street, Dover, N.J. 07801. Hopefully, if enough of us help, our efforts will mean freedom and a new life for Eitan, Alexandra, and their 14-month old daughter, Miriam. Please don't let them down.

MURRAY WEINSTEIN
Dover, New Jersey

Detecting ether drift

Regarding H. C. Dudley's letter in February (page 73) it must be pointed out that Earth is not rigidly oriented with respect to the celestial sphere, whereas the 160-km/sec velocity vector of its average motion is rigidly oriented. It can then be noted that, if at any arbitrary time the velocity vector is normal to the surface (and therefore undetectable), one need only wait six hours for Earth's rotation to re-orient the surface so that the said vector now lies parallel to the surface and becomes easily measured. It is now only necessary to check to see if the experiment was performed at an appropriate time for this to have occurred.

A quick reading of the Michelson and Morley paper¹ shows that, since they were intent upon measuring Earth's motion relative to the Sun, they took data both at 12:00 noon and at 6:00 pm, searching for the ether drift due to the 30 km/sec orbital velocity of Earth. The experiments contained in this paper were done in July of 1887, and a rather simple calculation shows that on 1 July at 12:00 noon the horizontal component of the Earth's motion relative to the 3 K radiation would be on the order of 150 km/sec, while at 6:00 the horizontal component would be negligible.

I find it hard to believe that an experiment intended to measure a drift difference of 30 km/sec would have failed to turn up the 150-km/sec velocity component which was actually there.

I conclude that any experiment, designed along these lines, to measure the ether drift can only result in the same failure experienced by Michelson and Morley. This is not to say flatly that such an ether does not exist, but only to conclude that if it does exist some much more sophisticated technique will need to be devised to measure it, not just an incorporation of more sophisticated equipment within the same experimental technique.

Reference

1. A. Michelson, E. W. Morley, "On the Relative Motion of the Earth and the Luminiferous Ether," *The American Journal of Science*, November 1887.

DALE C. SCHEETZ
Florida Atlantic University
Boca Raton, Florida

Browsing at home

Messrs. Falk, Beiman, Erlbach and Lax can have a browsing library at City College rather than at AIP, as suggested in their letter in March (page 11).

There are at least three established book vendors who will supply on approval recently published books on any subject or subjects. These new books can be shelved in the library or departmental offices for examination. Titles not purchased are returned to the book vendor.

Several Energy and Research Development contractor librarians have used this book-selection method with success for the last five years.

JOHN P. BINNINGTON
Brookhaven National Laboratory
Upton, New York

Ozone work at Ford

Your article on "Fluorocarbons and the stratosphere" by Gloria B. Lubkin in the October issue (page 34) provides an interesting appraisal of the problem of ozone depletion and what is being done to better assess its impact. In this connection, we would like to point out the intensity of efforts currently underway in the research laboratories of Ford Motor Company, and some of our contributions to date.

Contrary to the impression that one gets through a casual reading of the article, the technique of laser-induced fluorescence^{1,2} as applied to the detection of OH was first demonstrated at Ford in 1972, and the detection of OH in the ambient air³ was first recorded in Ford's Scientific Research Laboratory

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