PHIMSY

Everyone knows it's obvious

One of our editors' favorite annoyances is the "everybody-knows" syndrome. They ask for the first names of persons who appear in a meeting report, and the author tells them, "Everybody knows them." "Everybody" turns out to be the hundred participants at the meeting and the 500 others who might have been there. They ask for some words to label an axis of a graph instead of a symbol, and the answer is, "Everybody knows what k represents." "Everybody" is all the experts who know all about the subject already. They ask for the definition of a specialized term and hear that everybody knows it.

"It's an infection that's creeping through the body scientific," said an editor. "Like a bunch of poets who agree on the message and worry about how to get it across, a lot of scientists concentrate on impressing their friends who already know what they are trying to say. But we are sending out 50 000 copies of PHYSICS TODAY, some to students, some to theorists, some to acousticians, some to particle people. We want them all to be able to understand all of it. No one among the readers knows the technical terminology of all the branches. Even if they did, we would still be concerned about the nonphysicist who might glean a grain or two from what we publish. The things that are already obvious to everyone are not the ones we are looking for. And they shouldn't be the things a good scientist wants to write about."

G is for Giga and Geneva

We have our troubles with BeV and GeV. In Britain a billion is 10¹²; in the US it is 10⁹, and we don't intend to confuse either side with the other definition. Thus it is easy to accept the recommendation of the standards organizations and adopt Giga- and G for 10⁹.

Victor Weisskopf faced the problem in a talk. "GeV-oh, I'm sorry. That's Geneva electron volts," he said. "Over here I have to remember to use Brookhaven electron volts." We hope that no further confusion will arise if someone sees "Weston" on a voltmeter.

We made the Readers' Guide

The editors around here are inflated. They have just found out that "by vote of the subscribers" PHYSICS TODAY will be added to Readers' Guide to Periodical Literature, an index aiming to give a balanced diet in scientific and nonscientific fields. I'm having trouble getting them off the clouds and back at the typewriters. They don't realize it's not their work but popular taste that is improving.

How to handle "Books"

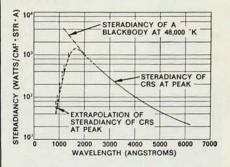
"Why did you publish that nasty review on page XX?" a fellow wrote recently to our "Books" editor, Gerald Present. Like any criticism that arrives in the office, this remark stimulated some discussion among the editors, and before they were through, I had learned a lot about how Jerry runs the "Books" department.

He says that PHYSICS TODAY receives about 600 books a year from publishers. Among them, of course, are some that Jerry solicits after he and other editors become aware of their planned publication, but in general you can count on publishers to keep you informed.

Out of the 600 received, about 500 rate a listing under "New Books"; cookbooks and biology don't get listed. A "New Books" list goes each month to the printer and to about 150 regular reviewers (physicists, chemists, engineers, astronomers), who request books they want to review. Not all the books are offered, though. Jerry marks the 20 or so that appear to be important enough for review among about 40 on the monthly list. Of the 20. a few drop out, some through reviewer delinquency, some because a reviewer recommends, on closer study, that a book he received should not be reviewed. So we get down to the 15-20 reviews that appear each month.

Solicitation of special reviewers for unusual books, followup on reviewers

RECOGNIZE A 48,000°K BLACKBODY?



YOU DO IF

you are an experimentalist concerned with

- Ultraviolet absorption spectroscopy
- High temperature laboratory spectral standards
- Radiation damage
- Ultraviolet spectral fluorometry
- · Flash photolysis
- Photoluminescence

OTHER SCIENTISTS SAY

the TRW Continuum Radiation Source is the perfect instrument for the job.

WRITE FOR A TECHNICAL DATA BULLETIN AND APPLICATION INFORMATION ON THE TRW CONTINUUM RADIATION SOURCE FOR YOUR OWN RESEARCH.

TRW INSTRUMENTS

139 Illinois St., El Segundo, Calif. 90245 AC 213, 679-9101 Extension 22884 Dept. PT-1267

Developers and manufacturers of state of the art diagnostic instruments for basic and applied research.

HeNe GAS LASERS

Together with extreme reliability and low cost, ENL Models LS-30 and LS-32 feature:

- Advanced coaxial plasma tube design
- Compact, lightweight laser head for easy mounting
- · Simple to operate
- Mechanically rugged design for industrial, laboratory, and classroom applications
- Needs no adjustment, except in the case of multimode operation
- · Requires no alignment or maintenance
- · Excellent output stability, exceptionally long life
- · Fast delivery from stock



*Tripod extra

LASER MODEL LS-30 Extremely compact, low noise CW gas laser with 1% regulated integral power supply. Portable, easy to operate. Features, in common with the entire Quantum Physics laser line, sealed interferometer mounts that require no adjustment, but have the capability for tuning all of the Fabry-Perot interferometer modes. Optical power at 6328 Å, single mode 2.0 mw.

HeNe gas laser of exceptional quality and performance at minimal cost. A complete laser system (including 2% regulated dc power supply). Designed for ease of operation, mounting, stability, ruggedness, and long life. Serves as an excellent source of highly collimated optical radiation at 6328 Å. Output power, single mode 1.5 mw.

Tem

Marwe]

出の

lo time

ectoria

orbite

erefor

ment :

peed

bimate

Guaranteed operating life, both models, 2000 hours or one year shelf life. Ask also for information about ENL's ultra-fast laser and infrared detectors. Literature available on request.



QUANTUM PHYSICS DIVISION ELECTRO-NUCLEAR LABORATORIES, INC.

115 Independence Drive, Menlo Park, California 94025 · (415) 322-8451

and books, castigation of delinquents, replacement of books they fail to review, copyright problems, the search for titles and illustrations and reviewer biographies—these are some of the problems that keep Jerry hopping. Meanwhile he finds some amusement in the job. There is, for example, the reluctant friend of an author who won't review the book because he doesn't think it's good—and besides he's working on a better one himself. Then there are the imitators—other magazines indulging in the highest form of flattery.

Why a nasty review? The purpose of the department, says Jerry, is to tell the reader about the books: what is in each one, why it is important, how well the book serves its purpose. Not all books are good, and it would be a disservice to pretend they are. Moreover one would like to steer publishers and authors away from bad practices. Who knows? We might do some good.

The melody of relativity

Speaking of poets, let me offer you the poem Robert Bennett sent us recently from Houston, Texas. "Upon studying a modern physics text," he says, "I was impressed by the poetic terms in which Einstein's Special Theory of Relativity was presented." Here is what he wrote:

Special Theory of Relativity

Stood Michelson-Morley in luminiferous ether

Which had no effect.

Postulate ether drag, but aberration of starlight

Would not support it.

Maxwell equations to Lorentz-Fitzger-

ald contraction

No time dilation?

Vectorial c, but spurious eccentricity In orbits of stars.

Laws independent of constant translational motion

Of reference frame.

And the speed of light is in any frame of reference

Free of source speed.

Therefore impossible to find experiment yielding

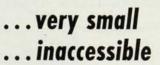
Absolute motion.

Phase velocity can be greater than the speed of light.

Ultimate is mediate.

TAKE TEMPERATURE WITH A MICROSCOPE?

With this new IR Microscope you can now take the temperature of targets that are...



... delicate

... dangerous

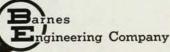
Is it too small to handle? Too delicate to disturb? Too dangerous to touch? The Barnes Infrared Microscope will take its temperature... from any angle. Without touching it. Without altering the state of the target being measured.

A crab's eye or a rapidly stitching sewing needle, a memory core or a spinning motor shaft in a bell jar, this IR Microscope measures temperature where all conventional devices fail.

With its small spot size—lens options to .0007-inch—and its long working distance—up to 13 feet—you can make temperature measurements of small targets through tiny view ports, down narrow shafts, in evacuated or contaminated areas. And the IR Microscope's wide-angle optics permit you to view the target all the while.

Typical size of the Infrared Microscope's collecting beam is %-inch. Speed of response: 10 milliseconds. Temperature resolution: 0.5°C at room ambient; better at higher temperatures. Standard range: 0°C to 165°C (extended range to 2500°C available). Mount: tripod or stand.

For a free bulletin describing this Microscope, write to Product Sales Manager: Barnes Engineering Co., Stamford, Conn. 06902



... Where Infrared Is Our Business!