

to the editor

Ray-Alert's defense

In "Standards for TV Sets" (SN: 7/19, p. 46), you presented the current status of X-radiation standards for TV sets with the same inappropriate casualness which has characterized both the TV manufacturers and our Governmental bureaus.

When for example, you say (column 2) that the PHS survey found "only 5 percent of sets dangerous," the "only" makes the 5 percent appear to be a modest number; in fact, 5 percent of more than 20 million color TV sets is one million sets; allowing 2.5 viewers per set, 2.5 million people are involved with unnecessary, undesirable X-radiation exposure.

When you cite the picture tube as "the least likely source of radiation" you fail to note that it is the most likely location to subject people to radiation. The usual viewer usually sits in front of, rather than in back of, on top of, below or next to, the TV set, these other sites being involved when high voltage rectifier or shunt regulator tubes are faulty or excessive, and are really rare sites for viewer exposure.

The RAY-ALERT system is the only accurate, economically practical product available. The system was not designed and has never made claim to "make a complete safety evaluation;" it was designed to measure X-radiation emanating from the picture tube, which is the most likely source of exposure to most viewers.

Our company still awaits with sincere interest for the Public Health Service to offer a better survey method for the average TV viewer to determine whether or not his set is subjecting himself and his family to excessive radiation (with respect to the recommended standard) while the usual viewer is logging his usual 1,000 hours per year of viewing time.

*William F. von Meister, President
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Geologic convention

In your article "Apollo Returns: The Work Begins" (SN: 8/2, p. 95) you report the spectroscopic analysis of moon rocks by Dr. Ross Taylor as 49 percent silica, 10 percent alumina and 7 percent titanium oxide. The elements iron, cal-

cium, magnesium and traces of nickel were reported also. The reporting of silicon (Si) as silica (SiO₂), aluminum (Al) as alumina (Al₂O₃) and titanium (Ti) as titanium oxide (TiO₂) is misleading and incorrect. Spectroscopic analysis does not allow such conclusions to be reached, i.e. the form of the element in a sample such as a compound or mineral. In addition, these elements are undoubtedly present as complex aluminosilicate mineral and not as the simple compounds stated.

The expense of this important project demands more accurate reporting to the public. Those untrained in this field can be misled. This should be avoided!

It is not uncommon for elemental analysis to be reported as the "oxides," but this seems to me to be an outdated custom. Can you, please, provide the analysis exactly as reported by Dr. Taylor?

*John W. Miller, Ph.D.
Bartlesville, Okla.*

(Dr. Taylor's spectroscopic analyses do indeed determine elemental, not compound, abundances, which are reported as oxides as a matter of geologic convention. Dr. Taylor, however, feels that the liberty is safe in this case. "It's clear that we're dealing with silicate chemistry here," he says, "and it's clear that oxygen plays an important part." Ed.)

A fervent hope

It is my opinion that the article on the electron ring accelerator by Dietrick Thomsen (SN: 7/12, p. 34) has been well done. It is an interesting presentation and a balanced presentation. I hope that it can soon be followed by an article describing the first successful operation of an ERA!

*Andrew M. Sessler
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films OF THE WEEK

Listing is for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.

AT THE CROSSROADS—M-1601-X. 16mm, color, sound, 28 min. Through scenes filmed in six major cities and a typical rural area, presents problems facing most U.S. communities in making adequate health care accessible to everyone: inadequate clinics with jammed waiting rooms, overcrowded hospitals with antiquated facilities and equipment and drastic shortages of health manpower. Several leading health experts discuss some of the ways in which these problems are being met. Audience: general. Free loan from National Medical Audiovisual Center (Annex), Station K, Atlanta, Ga. 30324.

ATOMS IN AGRICULTURE. 16mm, color, sound, 26 min. Explores the beneficial applications of atomic energy in the fields of agriculture: as radioactive tracers that help scientists follow the life processes of plants, animals and soil; and as radiation to treat or improve plants, animals, insects and food products. The audience meets agronomists, veterinarians, entomologists, nutritionists, biochemists and engineers, who show and explain their work in such areas as the safe and more effective use of pesticides, controlling and understanding the diseases and metabolism of plants and animals and conservation of water. Audience: general. Purchase \$83.09 from WRS Motion Picture Laboratory, 210 Simple St., Pittsburgh, Pa. 15213 or free loan from AEC field laboratories or from Audio-Visual Branch, Department of Public Information, U. S. Atomic Energy Comm., Washington, D.C. 20545.

ATOMIC REVOLUTION IN WOOD. 16mm, color, sound, 23 min. Story of the fusing of wood and plastic by irradiation into an amazing combination-substance which has all the esthetic appeal of wood, but which is greatly improved in hardness, abrasion, resistance and durability. Traces the development of radiation-processed wood-plastic materials from initial USAEC development efforts through industry's commercialization activities. By means of animation and live action, explains the process for making this new material, and describes its superior characteristics and woodworking properties in comparison to plain wood. Audience: general. Purchase from National Audiovisual Center, NAR/GSA, Washington, D.C. 20409 or free loan from AEC field libraries or Audio-Visual Branch, Department of Information, U. S. Atomic Energy Comm., Washington, D.C. 20545.

BLOOD PRESSURE READINGS—M-1582. 16mm, color, sound, 18 min. Presents a series of clinical blood pressure measurements using a mercury sphygmomanometer and stethoscope. Each scene shows a column of mercury descending on a sphygmomanometer scale with accompanying stethoscopic sounds. Following a practice reading, 14 separate readings are presented as test segments. Film was made during actual measurements of blood pressure on subjects selected to provide a variety of responses. Audience: medical and nursing students, paramedical personnel, field investigators involved in measurement studies. Purchase from DuArt Film Laboratories, 245 W. 55th St., New York, N.Y. 10019, or free loan from National Medical Audiovisual Center (Annex), Station K, Atlanta, Ga. 30324.

SCIENCE NEWS

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Subscription rate: 1 yr., \$7.50; 2 yrs., \$13.50; 3 yrs., \$19.50. Special trial offer: 39 weeks, \$3.97. Single copy, 25 cents. \$1.00 per year for foreign postage. Change of address: Three weeks' notice is required. Please state exactly how magazine is addressed. Include zip codes.

Printed in U.S.A. Second class postage paid at Washington, D.C. Established as Science News Letter® in mimeograph form March 13, 1922. Title registered as trademark U.S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide and the Engineering Index. Member of Audit Bureau of Circulation. UNSOLICITED MANUSCRIPTS will not be returned unless accompanied by a stamped, self-addressed envelope.

Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. North 7-2255. Cable Address: SCIENSERV.

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Director: EARL J. SCHERAGO
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