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**1 Millisecond to
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MODEL 501



Designed to Study:

1. Transient biological phenomena, such as oxidation of blood; changes in visual pigments; changes in enzymes; etc.
2. Chemical kinetics of combustion of solid or liquid propellants.
3. Chemical history of ablation of materials subject to high temperatures and pressures.
4. Transient spectroscopic phenomena in hypersonic wind tunnels, shock tubes and plasmajets.
5. Chemical kinetic reactions, such as stopped flow, relaxation, fluorescence, phosphorescence.
6. The separated fractions from a gas chromatograph.
7. Emission and/or absorption spectra from any transient phenomenon.

Features:

1. Wavelength region from 3000Å to 9 μ . Width of scan determined by grating chosen.
2. Seven scanning speeds from 1 msec to 100 msec. 30Å / μ sec. max.
3. Continuous scanning with only 20% off time between scans.
4. Wavelength scale is linear.
5. Adjustable time delay between scans and before 1st scan is initiated.
6. Internal secondary standard for absolute radiance measurements.
7. Cassegrainian collector (f/5.5) focusable from 11" to infinity.
8. For emission or absorption spectroscopy.
9. Offset multiple scan data presentation.
10. Wide choice of detectors and gratings, easily interchangeable.

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Westheimer surveys do not have strictly parallel structures and for that reason it is difficult to use the surveys in comparing physics and chemistry. Attempting to overcome this failing, the interagency committees now being organized for physics and chemistry will possess an overlapping membership so that individual representation will be identical for several agencies, including the Defense Department and the Atomic Energy Commission. Thus some parallelism of approach will be achieved.

"It is important to realize," says an OST spokesman, "that these interagency committees will not make the decisions as to how much money will be spent for each discipline and sub-discipline. Such decisions are made by the individual agencies, which allocate funds for science to carry out their specific missions. What these committees will do is examine the analyses and conclusions of the Pake and other reports to learn what opportunities and problems exist in each field. For the effectiveness of the government agencies involved depends in part on the well-being of physics and other basic sciences."

Congress to study NBS?

One of the most repeatedly denied but continually persistent rumors heard these days on Capitol Hill is that Congress will soon perform a deep analysis of the National Bureau of Standards. The House Committee on Science and Astronautics, which

has jurisdiction over the bureau (together with the National Science Foundation and National Aeronautics and Space Administration), is slated to conduct the study sometime during the next session, according to Congressional sources.

NBS wants study. "A Congressional study of the bureau!" exclaims an NBS spokesman. "We certainly welcome hearings on the bureau's responsibilities and how they are being met." It is no secret that the bureau, in recent years, has suffered from a dearth of resources to pursue its several missions. Data on the properties of matter and energy, which are gathered by the NBS National Standard Reference Data System, are accumulating faster than NBS scientists are able to evaluate and process them. "The longer we wait to do the job, a job that will have to be done sooner or later," NAS chief Frederick Seitz told Congress, "the more it costs. The morass of unprocessed data is holding up scientific and technical progress to an alarming degree." Industry is in urgent need of an expanded standard-reference-materials program, which NBS could provide. Engineering standards and performance criteria are also becoming more sophisticated. "We have to take a new look," says the bureau, "not at single or relatively simple components, but at whole systems, and not just hardware but software as well, such as simulation of transportation systems that includes technical, social and cultural considerations."



NEW HEADQUARTERS of National Bureau of Standards at Gaithersburg, Md.

Consequently NBS believes that a study of bureau missions and operations by Congress would serve only to strengthen its hand in bidding for practically static federal science funds. Certainly a study along the lines of the recent Daddario report on NSF, which has won high praise from most scientists, would help to publicize the bureau's need for more funds to support its varied activities. Committee investigations of science agencies, though often looked upon with trepidation by many scientists, often result in a firm alliance between committee and agency that redounds to the benefit of both parties.

Physicist demand at peak

As our national economy and our inflation surge forward, pressures on all job markets continue to increase, and nowhere is this more evident than in the current demand for physicists.

PHYSICIST
—Medical Research—
 Experimental work in the radiation dosimetry of high intensity pulsed radiation. Position requires BS in physics, prefer 2 years experience.
Sloan-Kettering Institute
 TR 9-3000, EXT 2614
 AN EQUAL OPPORTUNITY EMPLOYER

PHYSICS
 Project Manager opening for top PhD with R&D in flight simulation, fluid bearing, optical tracking or high performance space optics. Local Co.
AL DAVIS-OMEGA Agency 309-5th Ave.

PHYSICS
 RECENT GRADS. MS level R&D openings in laser, optics, solid state, reactor physics. Local + out-of-town.
AL DAVIS-OMEGA Agency 309-5th Ave.

PHYSICS JR'S
 RECENT GRADS TO 3 YRS EXP.
 Photometry/Spectroscopy/Colorimetry
 Career Guides agency 415 Lex at 43rd

FEE PAID
 to \$23K

FEE PAID
 to \$10M

FEE PAID
 to \$12,000

"Reports on recruiting activities at colleges and universities indicate that the demand for physicists generally has intensified this year, particularly for those with graduate degrees," says Arthur M. Ross, head of the Bureau of Labor Statistics. A PHYSICS TODAY survey of its own recruitment ads indicates a 30% increase over the past two years, and the Deutsche & Shea engineer/scientist demand index was at an all-time high for the first quarter of this year.

Over the long run the outlook is for continued "very rapid growth in the employment of physicists through

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