

SCIENCE

30 June 1967

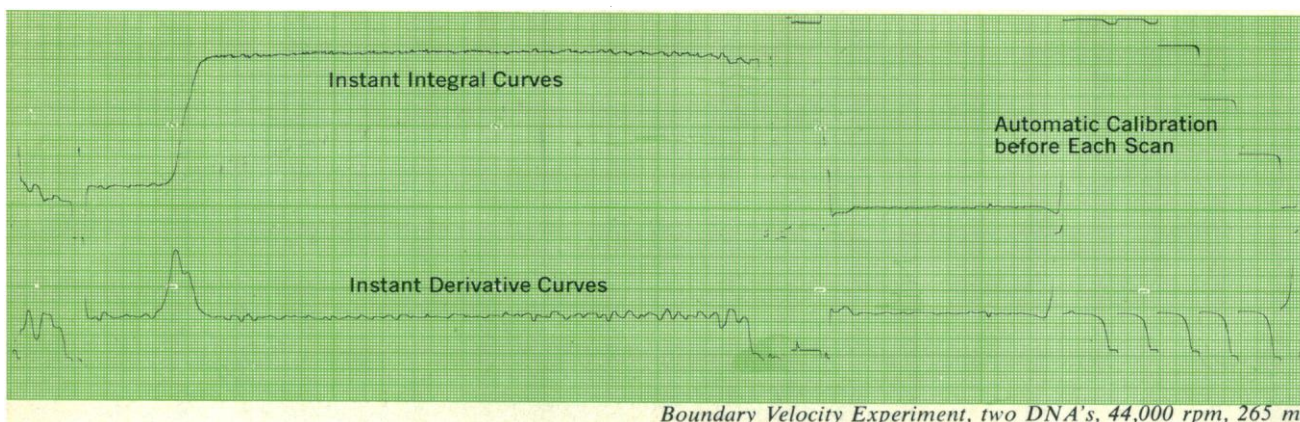
Vol. 156, No. 3783

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



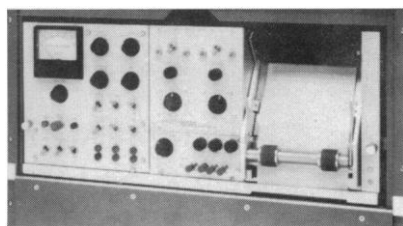
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Index Issue



Direct Scanning...the new era in analytical ultracentrifugation

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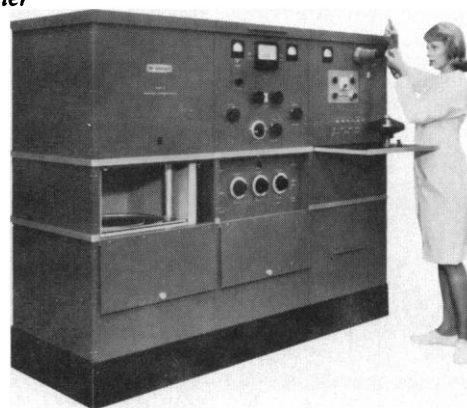
- Because the Scanner utilizes the split-beam principle, two samples in a double sector cell can be subjected to identical experimental conditions—an important factor in studying extremely small differences in sedimentation coefficients, for example. Or sample solution and solvent can be used in the double sector cell, with solvent

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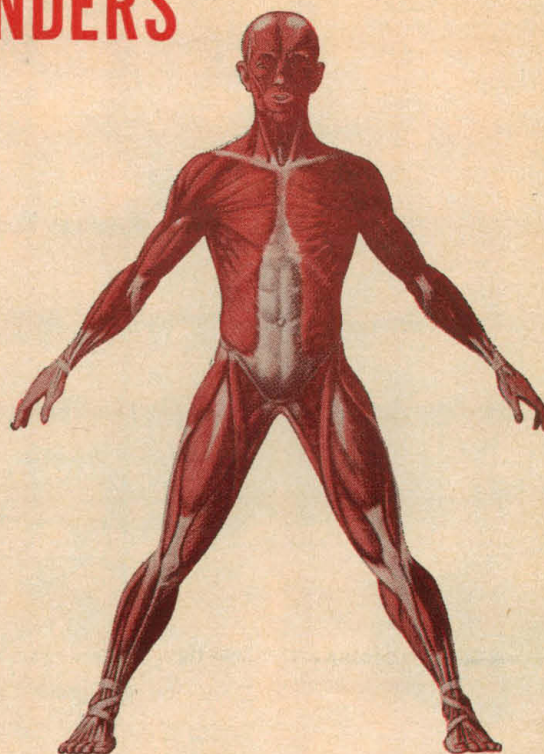
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COVER

Precipitate particle formed in stainless steel containing 0.2 percent titanium. The steel was heated to 1100°C after neutron irradiation. The size of the "tree-like" particle is 2.5×10^{-3} by 2×10^{-4} centimeter (electron microscope, about $\times 11,000$). See page 1689. [C. K. H. DuBose, Oak Ridge National Laboratory]



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OUTPUT: ± 10 volts full scale, single-ended with respect to ground.

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FILTER TIME CONSTANTS: 1 mS to 100 sec. in 1, 3, 10 sequence and EXT. position. 6 or 12 dB per octave roll-off.

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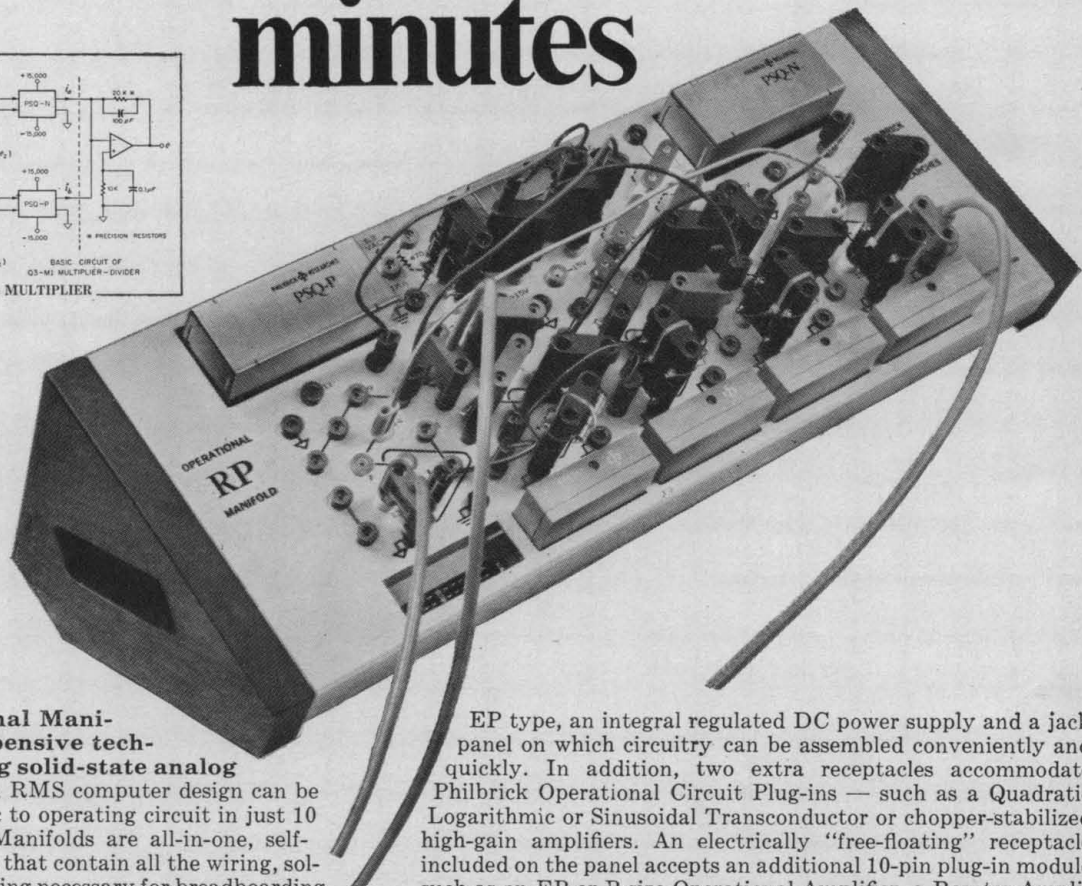
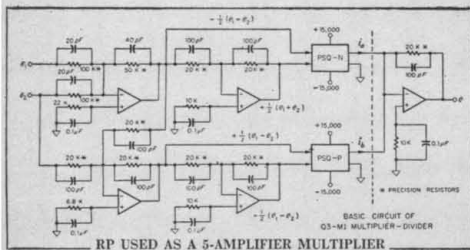
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Technology and Control of Crime

Projecting a statistical trend may not tell us where we will be some years hence, but it does tell which way we are heading and warns us to start steering a different course if we do not like the apparent destination. Projections of current crime statistics give clear warning of the need for some vigorous steering. The peak age of arrests for nontraffic offenses is now 16. The frequency of arrest at each age has been increasing, with the largest increases at the lower ages. Even without further increase above 1965 age-specific arrest rates, "at least 40 percent of the male children living in the United States today will be arrested for a nontraffic offense sometime in their lives. For boys living in cities, the figure is in the order of 60 percent." More complete reporting than in earlier years accounts for some increase in crime rates, and so probably do changes in definition; the boy who got a whipping for stealing apples from a neighbor's tree has a son who gets a police record for stealing a neighbor's automobile. Even so, the anonymity of the city and the mobility of the automobile make crime easier, and the deterring influences of family, church, and moral climate seem to have weakened.

The quotation given above is from a report of the Institute for Defense Analyses to the President's Commission on Law Enforcement and Administration of Justice* (see *Science*, 23 June, page 1579). The authors recognize that a complete analysis of the problem of reducing crime would involve much that lies in the area of sociology and the behavioral sciences, but in this report they concentrate on improvements to deterrence and apprehension that could be made relatively quickly by the use of known technology and physical science.

Some of the proposals deal with items of equipment, such as improved radios, a semiautomatic system for fingerprint identification, a locator system for patrol cars, and more nearly theft-proof automobile locks (such as are now required, and apparently are quite effective, in West Germany). A police command and control system would shorten police response time when a crime is reported and would make for more efficient use of resources. A systems analysis of police operations and court procedures is thought likely to lead to better use of personnel and faster processing through police and court channels. The possibility that a national information system for criminal justice agencies might be misused is recognized, but such a system would have many advantages; cost estimates and system characteristics are described in the report.

Many of the suggestions are tentative because much of the information necessary for more definitive recommendations is not available. The strongest recommendations are for more systematic data collection and for a substantial research and development program on equipment and methods. These recommendations are supported by some persuasive calculations indicating that the payoff from properly directed research might be quite substantial in terms of reduced operating costs or greater effectiveness. The President's Science Advisory Committee has endorsed the research recommendations.

If it seems a bit strange to find the Institute for Defense Analyses working on problems of domestic crime, it should not seem so in the future. Why should an agency with a developed competence in systems analysis and innovation not turn to new tasks? One of the problems of government is the maintenance of special-purpose laboratories at maximum utility as conditions change. Use of IDA to study crime is a good example of organized flexibility.—DAEL WOLFLE

*Task Force Report: *Science and Technology. A Report to the President's Commission on Law Enforcement and Administration of Justice* (Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, \$1.25).



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