Purism in Science: H. H. Rossi; R. Hermann; S. C. Erickson; A. M. Weinberg; Birth Control Institute: A. F. Hofmann; Fuel for Indian Reactors: R. F. Cross

EDITORIAL

The Use of Animals in Research and Teaching

ARTICLES

Optical Communications: R. Komnepner

An appraisal of the many techniques and the steps to be taken before practical systems are achieved.

Acoustical Thermometer: H. H. Plumb and G. Cataland

An ultrasonic interferometer provides a new method for the precise measurement of low temperature.

Research in Music with Electronics: L. Hiller and J. Beauchamp

Effects of modern scientific ideas and technology on the analysis and composition of music are surveyed.

Status of the National Standards for Physical Measurement: R. D. Huntoon

Progress in science and technology requires a highly developed measurement system of national scope.

Automated Synthesis of Peptides: R. B. Merrifield

Solid-phase peptide synthesis, a simple and rapid synthetic method, has now been automated.

The Rubidium Magnetometer in Archeological Exploration: S. Breiner

Exploration with a highly sensitive magnetometer allows use of more effective survey techniques.

NEWS AND COMMENT

Strip Mining: TVA in the Middle—Mohole: Platform Contract Awarded—Water Pollution Control: A New Law
BOOK REVIEWS
Polymer Science—Recent Books: L. A. Wood ........................................... 200

A Short History of Machine Tools, reviewed by E. S. Ferguson; other reviews by
H. M. Gehman. R. M. L. Baker. L. Spitzer, Jr., S. A. Bedini ....................... 201

REPORTS
Structure of Ice VI: B. Kamb ................................................................. 205

Nonuniform Cooling of the Eclipsed Moon: A Listing of Thirty Prominent
Anomalies: R. W. Shorthill and J. M. Saari ........................................... 210

Anomalous Dispersion Method: Its Power for Protein Structure Analysis:
G. N. Ramachandran and S. Parthasarathy ............................................. 212

Messenger RNA in Early Sea-Urchin Embryos: Cytoplasmic Particles:
A. S. Spirin and M. Nemer ................................................................. 214

Messenger RNA in Early Sea-Urchin Embryos: Size Classes:
M. Nemer and A. A. Infantie ............................................................... 217

Bone Density Measurements in vivo: Improvement of X-ray Densitometry:
R. L. Mason and C. Ruthven ............................................................... 221

Morphogenetic Effects of 6-Azauracil and 6-Azauridine: R. M. Rizki and T. M. Rizki

Protein Solutions: Concentration by a Rapid Method: W. F. Blatt et al. .......... 224

Hemolysin of Mycoplasma pneumoniae: Tentative Identification as a Peroxide:
N. L. Somerson, B. E. Walls, R. M. Chanock ........................................ 226

Comments on Reports: Transfer of Learned Response by RNA Injection:
R. E. Carney; A. L. Jacobson ............................................................... 228

MEETINGS
Critical-Point Phenomena: M. S. Green; Forthcoming Events ....................... 229

COVER
Seventeenth-century mastersigns of the makers of scales, weights, and
boxes of the city of Antwerp, one of the centers for the manufacture and
export of scales and weights. It was compulsory, starting in medieval
times, for each master to choose a sign and imprint it on every item
leaving his workshop. This identification was meant to prevent carelessness
or cheating. See review of Scales and Weights: A Historical Outline, page
203. [Bruno Kisch, Brooklyn, N.Y.]