

Lawrence Berkeley National Laboratory

Recent Work

Title

LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED IN THE INFORMATION DIVISION
DURING THE PERIOD OF JULY 1-15, 1954

Permalink

<https://escholarship.org/uc/item/391535zz>

Author

Lawrence Berkeley National Laboratory

Publication Date

1954-07-12

UCRL 2657

UNCLASSIFIED

UNIVERSITY OF
CALIFORNIA

*Radiation
Laboratory*

TWO-WEEK LOAN COPY

*This is a Library Circulating Copy
which may be borrowed for two weeks.
For a personal retention copy, call
Tech. Info. Division, Ext. 5545*

BERKELEY, CALIFORNIA

DISCLAIMER

This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor the Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or the Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof or the Regents of the University of California.

UCRL-2657
Internal Distribution

UNIVERSITY OF CALIFORNIA
Radiation Laboratory
Contract No. W-7405-eng-48

UNCLASSIFIED

LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED IN THE UCRL
INFORMATION DIVISION DURING THE PERIOD OF JULY 1-15, 1954

July 21, 1954

Berkeley, California

LIST OF CODES FOR REPORT NUMBERS

ACCO - American Cyanamid Co.
AERE - Atomic Energy Research Establishment, Harwell, England
AFCRC - Air Force Cambridge Research Center
AMRL - Army Medical Research Lab., Fort Knox
ANL - Argonne National Lab.
ANP - Aircraft Nuclear Propulsion Project, Oak Ridge
APEX - General Electric Co, Aircraft Gas Turbine Div.
ASTIA - Armed Services Technical Information Agency
BM - Bureau of Mines
BM-II - Northwest Electrodevelopment Lab., Bureau of Mines,
Albany, Oregon
BMI - Battelle Memorial Institute
BNL - Brookhaven National Lab.
BRL - Ballistic Research Labs., Aberdeen Proving Grounds
CEA - Commissariat à l'Énergie Atomique, France
CEI, CRC, CRE, CRP, CRT and others
- Chalk River Project, Canada
CEPS - Commonwealth Edison Co.
CERN - European Council for Nuclear Research
CF - Oak Ridge National Lab., Central Files
CU - Columbia University
DC - General Electric Co., ANP Project
DOW - Dow Chemical Co.
DP - E. I. du Pont de Nemours and Co.
FMPC - National Lead Co. of Ohio
HW - Hanford Works, Richland, Wash.
ISC - Iowa State College
JENER - Jount Establishment for Nuclear Energy Research, Norway
K - Carbide and Carbon Chemicals Co., K-25 Plant
KAPL - Knolls Atomic Power Lab.
KLX - Vitro Corp. of America
LA, LADC, LAMS
- Los Alamos Scientific Lab.
LRL, LWS
- California Research and Development Co.
MIT - Massachusetts Institute of Technology
MLM - Mound Lab.
Monograph
- Bell Telephone System
MTA - California Research and Development Co.
NAA - North American Aviation, Inc.
NBS - National Bureau of Standards
NM - Naval Medical Research Institute
NRL - Naval Research Lab.
ONRL - Office of Naval Research, London
ORNL - Carbide and Carbon Chemicals Co., Oak Ridge National Lab.
PR - Chalk River Project, Canada

SEP - Sylvania Electric Products, Inc.
TEI, TEM - U. S. Dept. of Interior, Geological Survey
TID - Technical Information Service, Oak Ridge
UCLA - Univ. of California at Los Angeles
UR - Univ of Rochester
USNRDL - U. S. Naval Radiological Defense Lab.
WAPD - Westinghouse Electric Corp., Atomic Power Division
Y - Carbide and Carbon Chemicals Co., Y-12 Plant

Many prefixes used for research and development reports cover a number of installations. NP ("Non-Project") numbers are assigned by the Technical Information Service at Oak Ridge to those reports which it receives from sources not under contract to the atomic Energy Commission. The UCRL Information Division gives "Misc" numbers to any others received here that do not bear an identifying number. Many reports are grouped together under numbers corresponding to an AEC division or operations office. Some of these are as follows:

CO, COO - Chicago Operations Office
IDO - Idaho Operations Office
NYO, NYOO - New York Operations Office
ORO - Oak Ridge Operations Office
RMO - Raw Materials Division
WASH - Atomic Energy Commission, Washington

In our semimonthly "List of Reports Received" the originating installation will be placed in the author column whenever the report code number does not indicate a specific laboratory, or is obsolete or not given in this list.

Two series of translations are currently received, one sponsored by the AEC (AEC-tr), the other by the National Science Foundation (NSF-tr).

Information Division
May 3, 1954

LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED IN THE UCRL
INFORMATION DIVISION DURING THE PERIOD OF JULY 1-15, 1954

July 21, 1954

| Index Number | Title | Author | Date |
|---------------|---|-------------------------------------|---------|
| AERE-I/R-1360 | The Handling and Dispensing of Chemically Processed Radioactive Isotopes | F. Hudswell G. Neathway, et al | 2/54 |
| UCLA-298 | Effect of X-Irradiation on Gastric Secretion and the Accompanying Gross and Histological Changes in the "Shay" Rat Stomach | L. Detrick H. Upham, et al | 7/2/54 |
| UR-321 | The Effects of X-Radiation on the Metabolism of Baker's Yeast | W. Bair | 5/26/54 |
| CHEMISTRY | | | |
| AERE-C/R-1356 | Principles of Operation of Ion Exchange Column | E. Glueckauf | 2/54 |
| AERE-C/R-1365 | A Calorimetric Determination of the Half Life of Cm ²⁴² | W. Hutchinson A. White | 1/54 |
| AERE-C/R-1390 | The Determination of Oxygen in Beryllium by the Vacuum Fusion Method, on a Micro-Scale (With a Note on the Determination of Oxygen in Zirconium) | J. Gregory D. Mapper | 3/31/54 |
| AERE-I/M-31 | The Concentration of Tritium in Mixtures of Tritium and Hydrogen Using Pyrophoric Uranium | C. Evans E. Wilson | 3/10/54 |
| AERE-M/R-1415 | Effect of Ionising Radiation on Olefines and Acetylenes | A. Charlesby | 4/1/54 |
| *ATI-81814 | Thermal, Structural, Electrical, Magnetic and Other Physical Properties of Titanium, Zirconium, Hafnium and Thorium and Some of Their Simple Compounds. III. Hafnium, Its . . . | G. Skinner, et al, Ohio State U. | |

*Microcard

| | | | |
|-------------------------------|--|--|---------|
| COO-198 | Utilization of the Gross Fission Products. Progress Report No. 6 | L. Brownell L. Anderson, et al, U. of Michigan | 3/54 |
| N8-ONR-66902 Tech. Rpt. #4 | Heats of Adsorption of Polar Molecules on Carbon Surfaces I. Sulfur Dioxide | R. Beebe R. Dell, Amherst College | 12/53 |
| PDB-106 | The Preparation of Pu ²³⁹ and U ²³³ Sources by Sublimation | R. Jones | 1/14/54 |

ENGINEERING

| | | | |
|-----------------|--|------------------------------|---------|
| AERE-Inf/Bib-93 | Electromagnetic Pumps and Flowmeters, A Bibliography of Literature References and Readily Available Reports | M. Greenhill | 4/30/54 |
| KAPL-921 | Deformations and Stresses in Circular Cylindrical Shells Caused by Pipe Attachments Part I. Summary of the Investigation | N. Hoff J. Kempner, et al | 11/53 |
| ORNL-915 | Forced Convection Heat Transfer in Thermal Entrance Regions Part III. Heat Transfer to Liquid Metals | W. Harrison | 6/25/54 |

METALLURGY AND CERAMICS

| | | | |
|---------------|--|--|---------|
| AERE-M/R-1378 | The Slip Casting, Sintering and Hot Pressing of Beryllia | P. Murray I. Denton D. Wilkinson | 2/23/54 |
| ANL-5164 | A Study of the Critical Strain of Zirconium | H. Luetzow | 3/3/53 |
| NP-5158 | Fundamental Studies Related to the Origin and Nature of Creep of Metals. Technical Report No. 10 Strain Hardening of Latent Slip System in Zinc Crystals | E. Edwards J. Washburn E. Parker | 4/54 |

PHYSICS

| | | | |
|---------------|---|---------------------------|---------|
| AERE-I/R-1369 | Tube Wall Thickness Gauge with Selection of Back Scattered Gamma Radiations | J. Putman S. Jefferson | 1/22/54 |
|---------------|---|---------------------------|---------|

| | | | |
|-------------------------------|---|--|---------|
| AERE-M/R-1352 | Relaxation Effects in Solid Solutions Arising From Changes in Local Order Part II - Theory of the Relaxation Strength | A. Le Claire W. Lomer | 2/12/54 |
| AF-18(600)771 Tech. Rpt. 1 | Sargent Diagram and ft Values for Electron Capture Transitions | J. Major L. Biedenharn, Yale U. | 11/54 |
| AF-18(600)771 Tech. Rpt. 2 | Ingoing Waves in Final State of Scattering Problems | G. Breit H. Bethe, Yale U. | 11/7/53 |
| AF-18(600)771 Tech. Rpt. 3 | Gyromagnetic Ratio in the Hyperfine Structure of Doublet States | W. Clendenin, Yale U. | 3/9/54 |
| AF-18(600)771 Tech. Rpt. 4 | On the Validity of the Born-Oppenheimer Approximation | P. Daitch S. Bludman, Yale U. | 4/23/54 |
| AF-19(122)44 | Ionospheric Research Scientific Report No. 56 The Dissociation of Molecular Oxygen in the High Atmosphere | M. Nicolet P. Mange, Penn. State U. | 2/1/54 |
| AF-19(122)44 | Ionospheric Research Scientific Report No. 57 The Propagation of Alfvén Waves Through the Ionosphere | J. Dungey, Penn. State U. | 2/15/54 |
| AF-19(122)44 Tech. Rpt. 58 | Ionospheric Research Scientific Report No. 58 Group Height Calculations in the Presence of the Earth's Magnetic Field | J. Kelso, Penn. State U. | |
| AF-19(122)44 Rpt. No. 59 | Ionospheric Research Scientific Report No. 59 The Aurocorrelogram of Randomly Fading Waves - With Applications to Wind Measurements at 150 Kc/S | R. Banerji, Penn. State U. | 3/15/54 |
| CRT-569 | Tables of X-Coefficients | J. Kennedy B. Sears W. Sharp | 5/54 |
| LRL-130 | Precision Cell Measurements for the MTA A-54 Linear Accelerator | C. Old J. Steinhaus R. Wright | 5/54 |
| LRL-156 | Vacuum Sparking I. The Effect of Applied Radiofrequency II. Test of Ionic Initiation Hypotheses | O. Myers W. Rastz | 6/54 |

| | | | |
|--|--|--|--------|
| MISC-1954-32 | Heavy Unstable Particles in Stripped Emulsions | J. Crussard M. Kaplon, et al, U. of Rochester | |
| MISC-1954-33 | Scattering of 314 Mev Polarized Protons by Deuterium | J. Marshall L. Marshall, et al, U. of Chicago | |
| MISC-1954-34 | Meson Production in n-p Collisions at Cosmotron Energies | W. Fowler R. Shutt, et al, Brookhaven | |
| MIT-RLE-Tech. Rpt. No. 266 | Statistical Theory Applied to Communication through Multipath Disturbances | R. Price | 9/3/53 |
| Monograph-2151 | An Automatic Telephone System Employing Magnetic Drum Memory | W. Malthaner H. Vaughan | 10/53 |
| Monograph-2216 | Dislocations and Plastic Deformations | W. Read, Jr. | 11/53 |
| Monograph-2220 | Electrical Properties of N-Type Germanium | P. Debye E. Corwell | 2/54 |
| N6-ORI-83 Tech. Rpt. 2 | Relativistic Ion Optics of a Cylindrical Electrostatic Analyzer | V. Honnold W. Miller, U. of Notre Dame | 11/53 |
| N6-ORI-83 Tech. Rpt. 3 | Photodisintegration Thresholds of Deuterium and Beryllium | J. Noyes J. VanHoomissen, et al U. of Notre Dame | 11/53 |
| N6-ONR-270- II Tech. Rpt. No. 12 | K-Meson Decay Scheme | S. Treiman, Princeton U. | |
| N6-ONR-279 Rpt. 183.02 | The Effects of Contaminants on the Operational Behavior of BF ₃ Counters | New York U. | 1954 |

| | | | |
|-----------------------------|---|--|---------|
| N6-ONR-24430 Tech Rpt. 4 | The Influence of Isotopic Mass on Some Physical Properties of Iron | J. McCaldin, Cal. Inst. of Tech. | 4/54 |
| N6-24914-3 Tech. Rpt. 7 | Photoprotons from Cobalt | M. Toms W. Stephens, U. of Penn. | 6/10/54 |
| N7-ONR-288 Tech. Rpt. 7 | A Multi-Channel Pulse Height and Delay Time Recorder | W. Ortel, Yale U. | 3/1/53 |
| NEVIS-2 R-78 | Absorption of Negative Pions in Deuterium: Parity of the Pion | W. Chinowsky J. Steinberger, Columbia U. | 5/54 |
| NYO-6233 | Meson Production in π -Nucleon Collisions at 1.5 Bev | W. Walker J. Crussard M. Koshiha, U. of Rochester | 6/21/54 |
| ORNL-1705 | Physics Division Semianual Progress Report for Period Ending March 10, 1954 | A. Snell J. Fowler E. Wollan | 7/2/54 |
| PR-P-21-E | Progress Report January 1 to March 31, 1954 Electronics Branch | J. Hardwick | |
| TRE-Tech. Note No. 149 | The Pulse Permeability of Magnetic Materials | A. Morris, Ministry of Supply, England | 1/52 |
| MISCELLANY | | | |
| MISC-1954-29 No. 62 | Translated Contents Lists of Russian Periodicals No. 62 | Dept. of Sci. and Ind. Res. | 5/54 |
| MISC-1954-30 | Nuclear Notes for Industry No. 2 | AEC TIS OR | |

REPORTS ISSUED BY INFORMATION DIVISION, UCRL

| | | | |
|-----------|---|---|----------|
| UCRL-2430 | 50-Channel Pulse-Height Analyzer Accelerator Type Maintenance Manual | R. Heller | 12/15/53 |
| UCRL-2638 | Polarization of Nucleons Elastically Scattered from Nuclei | W. Heckrotte J. Lepore | 6/28/54 |
| UCRL-2640 | Small-Angle P-P Cross Sections and Polarization at 300 Mev | O. Chamberlain G. Pettengill E. Segre C. Wiegand | 6/54 |
| UCRL-2643 | List of Unclassified Reports Received and Issued in the UCRL Information Division During the Period of June 16-30, 1954 | | 7/2/54 |
| UCRL-2644 | Proton-Proton Scattering Experiments at 170 and 260 Mev | O. Chamberlain J. Garrison | 7/1/54 |
| UCRL-2645 | Small Angle Proton-Proton Scattering at 330 Mev | D. Fischer G. Goldhaber | 7/54 |