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UNIVERSITY OF CALIFORNIA

Radiation Laboratory
Berkeley, California

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LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY THE UCRL
INFORMATION DIVISION DURING THE PERIOD OF JULY 16 - 31, 1958

August 4, 1958

LIST OF CODES FOR REPORT NUMBERS

ACCO	-American Cyanimid Company
AEP	-Monsanto Chemical Company
AERE	-Gt. Brit. Atomic Energy Research Establishment, Harwell, Berks. England
ALCO	-American Locomotive Company
AMF	-American Machine & Foundry Co.
ANL	-Argonne National Laboratory
ANP	-Aircraft Nuclear Propulsion Project
APEX	-General Electric Company, ANP Project
ASTIA	-Armed Services Technical Information Agency, Dayton, Ohio
BAW	-Babcock & Wilcox
BDX	-Bendix Aviation Corp., Detroit
BMI	-Battelle Memorial Institute
BNL	-Brookhaven National Lab.
BRB	-Bridgeport Brass Company
BSC	-Bethlehem Steel Company
CENP	-Combustion Engineering, Inc.
CERN	-European Organization of Nuclear Research, Geneva
COO	-Chicago Operations Office
CU	-Columbia University
DCDE	-Atomic Power Development Associates
DLWK	-Duquense Light Co-Walter Kidde
DOW	-Dow Chemical Company
DP	-E.I. duPont de Nemour & Co.
FWE	-Foreign Weapons Effects
GAT	-Goodyear Atomic Corporation
GEAP	-General Electric Company
GEL	-General Electric Co., General Engineering Laboratory
HEC	-Hooker Electrochemical Co.
HO	-Hanford Operations Office
HW	-Hanford Works, Richland
IDO	-Idaho Operations Office
ISC	-Iowa State College
K	-Carbide and Carbon Chemicals Co. (K-25 Plant)
KAPL	-Knolls Atomic Power Laboratory
KLX	-The Vitro Corporation of America
KLXS	-Vitro Corporation of America (Study Group)
KY	-Carbide and Carbon Chemicals Co. (C-31 Plant)
LA&LAMS	-Los Alamos Scientific Lab.
MCW	-Mallinckrodt Chemical Works
MIT	-Massachusetts Inst. of Tech.
MLM	-Mound Laboratory
NAA-SR	-North American Aviation, Inc.
NBL	-New Brunswick Laboratory
NBS	-National Bureau of Standards
NEA	-Foster Wheeler-Pioneer Service
NLCO	-National Lead Company of Ohio
NMI	-Nuclear Metals Inc.
NNSD	-Newport News Shipbuilding and Dry Dock Co.
NPG	-Commonwealth Edison Co. (Nuclear Power Group)
NRL	-Naval Research Laboratory, Washington D.C.
NYO	-New York Operations Office
ORINS	-Oak Ridge Institute of Nuclear Studies

ORNL	-Carbide & Carbon Chemicals Co. (ORNL)
ORO	-Oak Ridge Operations Office
PWAC	-Pratt & Whitney Aircraft Division of the United Aircraft Corp.
RFP	-Rocky Flats Plant
RME	-Grand Junction Operations Office
RMO	-Division of Raw Materials
SAN	-San Francisco Operations Office
SC	-Sandia Corporation
SEP	-Sylvania Electric Products, Inc.
SFO	-Santa Fe Operations Office
SRO	-Savannah River Operations Office
SO	-Schenectady Operations Office
TEI(M)	-U. S. Geological Survey Trace Elements Reports
TID	-Technical Information Service
TVA	-Tennessee Valley Authority
UCLA	-University of California Medical Research Laboratory
UCRL	-University of California Radiation Laboratory
UR	-University of Rochester
USNRDL	-U.S. Naval Radiological Lab., San Francisco, Calif.
UWFL	-University of Washington Applied Fisheries Laboratory
WAPD	-Westinghouse Electric Corp., Bettis Plant
WASH	-AEC, Washington
WEC	-Westinghouse Electric Company Industrial Atomic Power Group
WIN	-National Lead Co., Inc. Winchester
WT	-Weapon Test Reports
Y	-Carbide and Carbon Chemicals Company (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 received 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 the list.

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

LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY THE UCRL
INFORMATION DIVISION DURING THE PERIOD OF JULY 16 - 31, 1958

Radiation Laboratory
University of California
Berkeley, California

August 4, 1958

<u>Report Number</u>	<u>Title</u>	<u>Author</u>	<u>Date</u>
<u>BIOSCIENCES</u>			
UCRL-Trans-785	The Influence of Irradiation with Radio-Active Cobalt Co^{60} on Vitamin C Content in Potatoes, by E. G. Salukova Trans. from Akademiia Nauk S.S.S.R. Doklady <u>114</u> , 757-9 (1957).		
UCRL-Trans-786	A Plating Bath for Polonium.	P. J. Gamm	4-58
UCRL-Trans-787	Some Persisting Effects of Nuclear Radiation Exposure on the Behavior of the Rhesus Monkey.	A. A. McDowell, W. Lynn Brown School of Aviation Medicine, Randolph AFB, Tex.	4-58
UCRL-Trans-788	Report on Meeting of Ad Hoc Committee on Sealing Mesometeorological Phenomena. Held at Argonne National Laboratory May 15 - 17, 1957.	R. C. Wanta and H. Moses, Eds. Argonne National Lab., Lemont, Ill. and Robert A. Taft Sanitary Eng. Center, Cincinnati	6-58
UCRL-Trans-789	Homeostatic Mechanisms, No. 10. Report of Symposium Held at Brookhaven National Laboratory June 12 to 14, 1957.		5-58
UCRL-Trans-790	The Distribution of Fallout Activity in Rainfall at Brookhaven National Laboratory June to September, 1957.	F. P. Cowan, J. Stoimer	4-58

March 1957 Medical Survey of Rongelap and Ujae People
Three Years After Exposure to Radioactive Fallout.

R. A. Canard,
L. M. Meyer,
J. E. Rall, et al.

6-58

Some Variable Contributors to Natural Background.

K. O'Brien
N. Y. Operations
Health and Safety Lab., AEC

3-31-58

Electronoscopic Particle Studies. Progress Report.

R. Borasky

5-1-50

The Determination of Tritium in Urine.

United Kingdom Atomic
Energy Authority.
Industrial Group. Wind-
scale Works, Sellafield,
Cumb., England

2-58

Units of Radiation Exposure and Their Physical Meaning.
To be Published as Chapt. V of Section II, Methods of
Calculating Radiation Exposure, of the book, Health
Control and Nuclear Research, by Karl Z. Morgan and
Herbert M. Parker.

[K. Z. Morgan]
Oak Ridge National
Lab., Tenn.]

n.d.

Theoretical Requirements of Health Physics Instruments.
To be published as Chapt. VIII of Section III, Instru-
ments for Radiation Protection of the book, Health Con-
trol and Nuclear Research, by K. Z. Morgan and Herbert
M. Parker.

[Karl Z. Morgan]
Same

n.d.

Radioisotope Scanning. An Introduction to the Use of
the Area Scan in Medical Diagnosis.

M. Brucer

1-58

Status Report to Management on Radiation Preservation of
Food.

W. D. Jackson
Office of the Quarter-
master General, Fort
Lee, Va.

7-1-57

PPP-91

Radioactivity in Industry.

T. S. Chapman

1-14-58

SCIA-429

Semi-Annual Progress Report for the Period Ending June
30, 1958.

7-10-58

CHEMISTRY

ERE-C/R=2221	Some Fission Product Partition Data for Butex (Dibutyl Carbitol).	H. A. C. McKay, K. Alcock, D. Scargill	6-16-53
ERE-C/R=2407	The Micro Volumetric Determination of Uranium and Plutonium.	J. L. Bunce	5-51
ERE-C/R=2480	The Effect of Fission Recoil Energy on Calcium Nitrate Solutions.	R. G. Sowden, E. M. Lynde	2-58
ERE-C/R=2494	The Photometric Titration of Bismuth with EDTA and its Application to the Determination of Zirconium.	G. W. C. Milner, A. Bacon	2-58
ERE-C/R=2517	New Methods of Preparing Polonium Metal.	K. W. Bagnall, P. S. Robinson, M. A. A. Stewart	4-58
ERE-C/R=2528	Alkali Phosphotungstates. Part I. Nature and Solubilities of the Caesium Salts.	T. V. Healy, B. L. Davies	4-58
ERE-CE/R=2052	Critical Assemblies of Aqueous Uranyl Fluoride Solutions. Part II. Preparation and Handling of Solutions.	J. E. Cunningham, G. P. Wall, I. Wells	4-58
ERE-CE/R=2469	Absorption of Iodine Vapour by Aqueous Solutions.	R. F. Taylor	3-58
ERE-CE/R=2497	Two-Phase Flow in Gas-Liquid Systems. A Literature Survey.	J. A. R. Bennett	3-58
ERE-ES/R=2490	A Remotely-Operable, Micro-Pipetting Apparatus.	C. Jackson	3-58
ERE-Lib/Trans- S- (MS I. & 2)	Exchange of Hydrogen Between Various Organic Compounds and Liquid Deuterium Bromide, by A. I. Shatenshtein, V. R. Kalinachenko, Ia. M. Varshavskii. Trans. from Zhurnal Fizicheskoi Khimii 30, 2093-7 (1956).		

ARE-M/R=784	A Compton Spectrometer with Pulse Addition, by V. R. Burmistrov and Yu. A. Kazanski. Trans. from Priroda i Tekhnika Eksperimenta <u>1957</u> , No. 2, 26-9.		
ARE-M/R=2521	An Optical Method of Studing the Diffraction from Imperfect Crystals. III. Layer Structures with Stacking Faults.	B. T. M. Willis	3-58
ARE-M/R=2526	Thermal Conductivity of UO_2 .	R. Scott	3-58
ANT-5874	The Effect of Pulsation on Liquid-Liquid Mass-Transfer Resistances.	M. R. Eugenio	7-58
CFA-133	A New Method for Preparation of Radioactive Colloidal Gold. Reprinted from International Journal of Applied Radiation and Isotopes <u>2</u> , 136-9 (1957). (In French)	R. Henry, C. Herczeg, C. Fisher France. Commissariat a l'Energie Atomique, Paris	1957
CE-58-3-55	Nuclear Engineering Laboratory with a Point Neutron Source.	H. S. Pomerance Oak Ridge Nat'l Lab., Tenn.	3-17-58
CE-58-3-85	Estimate of Potential Fuel Reprocessing, Revision No. 22. Part A.	J. W. Ullmann Same	3-24-58
DOW-11	Progress Reports for January, 1949.	R. H. Bailes	2-7-49
DOW-13	Progress Reports for March, 1949.	R. H. Bailes	4-14-49
HEG-85	Potassium Fluoborate Production From Boron Trifluoride Complexes Containing Methyl Borate.	G. T. Miller, A. M. Teller	3-21-58
HEC-88	Degradation and Passivation of Elemental Boron.	G. T. Miller	4-16-58
HW-56096	Evaluation of Ion Exchange Membranes for Use in the Flurex Process.	E. W. Neuvar, W. W. Schults	5-26-58

UCRL-403(Dol.)	PWR Fuel Processing.	W. H. McVey Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	10-20-54
UCRL-PA-PN-13	The Effect of Hg Vapor on Photographic Nuclear Emulsions. (In French)	M. Nicolae Academia R.P.R. Institutul de Fizica Atomica, Bucharest	1956
UCRL-T/C-83	On the Relationship Between Poisson's Ratio and the Plastic Properties of a Material, by I. I. Cherkasov. Trans. from Zhurnal Tekhnicheskoi Fiziki <u>22</u> , 1834-7 (1952).	United Kingdom Atomic Energy Authority. In- dustrial Group H. Q., Risley, Lancs, England	
UCRL-T/D-60	Photochemical Studies in the Schumann Ultra-Violet, Nos. 3 and 4, by W. Groth. Trans. from Zeitschrift für phys- ikalische Chemie <u>B37</u> , 307-22 (1937).	United Kingdom Atomic Energy Authority. Industrial Group. Dounreay Works, Caithness, Scotland	
UCRL-918	Semi-Annual Summary Research Report in Engineering for July-December, 1957.	Ames Lab., Ames, Iowa	3-10-58
UCRL-1843	A Three-Stage Research Mass Spectrometer.	F. A. White, F. M. Rourke, J. C. Sheffield	5-28-59
UCRL-M-SSA-11	Summary on Metal-Water Reaction Status.		3-3-58
UCRL-2228	Pyrometallurgy Experiments on Plutonium-Rich Reactor Fuels. (Project Status Report as of March 31, 1958.)	J. A. Leary	7-11-58
UCRL-109	Frequency Response Analysis of the Froth on a Sieve Tray. (Thesis)	D. A. Jardine Delaware. Univ., Newark	6-57

UCRL-8405

UCSC-1958-253	Research on Formulation of Silane Base High Temperature Hydraulic Fluid. Third Quarterly Progress Report for [the] Period December 16, 1957 Through March 15, 1958.	Olin Mathieson Chem Corp., Baltimore	n.d.
UCSC-1958-254	A Study of Some of the Factors Involved in the Deterioration of Rubber Polymers and Vulcanizates. Final Summary Report [for] March 1, 1956 to July 1, 1958. Report No. 4.	J. Reid Shelton, T. McDonel Case Inst. of Tech., Cleveland	n.d.
UCSC-1958-255	Synthesis of Thermally Stable Epoxy Resins for Dielectric Applications. Quarterly Progress Report No. I [for] March 11, 1958 to June 15, 1958.	Malpar, Inc., Falls Church, Va.	n.d.
UCSC-1958-258	Oxidation of Magnesium Single Crystals and Evaporated Films. Technical Report No. 1. (Thesis)	R. R. Addiss, Jr. Cornell Univ., Ithaca, N. Y.	5-58
UCSC-1958-259	Research on Polymeric Bonding Systems and Their Dielectric Behavior. Progress Report 1 [for] March 1, 1958 to June 1, 1958.	R. P. Anderson, M. M. Sprung General Elec. Co. Res. Lab., Schenectady, N.Y.	n.d.
UCSC-1958-265	Optical Dispersion of Gases in the Infrared.	J. H. Jaffe, M. A. Hirshfeld, S. Kimel Weizmann Inst. of Science, Rehovot, Israel	(1958?)
UCSC-1958-266	Density of Fused Mixtures of Sodium Fluoride, Beryllium Fluoride, and Uranium Fluoride.	B. C. Blanke, E. N. Bousquet, L. V. Jones, et al.	7-9-58
Monograph 2950	Surface Protection and Selective Masking During Diffusion in Silicon. Reprinted from Electrochemical Society, New York. Journal <u>104</u> , 547-52 (1957).	C. J. Frosch, L. Derick Bell Telephone Labs., Inc., New York	5-58
Monograph 2967	Concentration of Hydrogen and Semiconductivity in ZnO Under Hydrogen-Ion Bombardment. Reprinted from Physics and Chemistry of Solids <u>3</u> , 87-94 (1957).	J. J. Lander Smo	n.d.

monograph 2972	The Effect of Ion Pair and Ion Triplet Formation on the Solubility of Lithium in Germanium. Effect of Gallium and Zinc. Reprinted from Physics and Chemistry of Solids <u>4</u> , 58-67 (1958).	H. Reiss, C. S. Fuller Bell Telephone Labs., Inc., New York	5-58
monograph 2973	Tight-Bonding Calculation of Acceptor Energies in Germanium and Silicon. Reprinted from Physics and Chemistry of Solids <u>2</u> , 115-8 (1957).	R. G. Shulman Same	5-58
monograph 2974	The Crystal Structure and Ferrimagnetism of Yttrium-Iron Garnet, $Y_3Fe_2(FeO_4)_3$. Reprinted from Physics and Chemistry of Solids <u>3</u> , 30-6 (1957).	S. Geller, M. A. Gilleo Same	5-58
monograph 2976	Absorption Spectrum of Bismuth-Doped Silicon. Reprinted from Physics and Chemistry of Solids <u>4</u> , 315-7 (1958).	H. J. Hrostowski, R. H. Kaiser Same	5-58
monograph 2978	Ion Pairing in Silicon. Reprinted from Physics and Chemistry of Solids <u>4</u> , 68-70 (1958).	J. P. Maite Same	5-58
monograph 2980	Surface Properties of Semiconductors. Reprinted from [Nobelstiftelsen, Stockholm]. Les Prix Nobel En 1956, p. 130-7.	W. H. Brattain Same	6-58
9-5587	Solubility Curve of Ethylenediaminetetraacetic Acid (Complex II) as a Function of pH. (In French)	P. Mechalyneck, W. Schietecatte Brussels. Centre d'Etudes Pour les Applications de l'Energie Nucleaire	10-1-57
9-5597	On the Direct Determination of the Viscosity of Gases at High Pressures and Temperatures.	J. Kestin American Rocket Society, New York	(1957)
9-5598	Corrosivity, Handling, and Transfer of Molten Lithium.	Olin Mathieson Chem. Corp., Niagara Falls, N.Y.	2-14-58

on cards

MP-6608	Hypersonic Gas Dynamic Charts for Equilibrium Air.	S. Feldman Avco Mfg. Corp. Avco Res. Lab., Everett, Mass.	1-57
MP-6609	Literature Search Relating to Metallurgical Applications of the Rare Earths.	A. Prochovnick Davison Chem. Co., Pompton Plains, N. J.	2-58
MP-6636	Radioisotope Adsorption on Minerals.	W. N. Roberts Canada. Dept. of Mines and Tech. Surveys. Mines Branch	10-28-57
MP-6813	Nuclear Power Problems. Progress Report for the Period July 1, 1956 to August 1, 1956.		
MP-6854	Nuclear Power Problems. Progress Report for the Period August 15, 1956 to October 1, 1956.		
MP-6876	Nuclear Power Problems. Progress Report for the Period October 1, 1956 to December 1, 1956.		
MP-6904	Nuclear Power Problems. Progress Report for the Period December 1, 1956 to February 1, 1957.		
MP-5735	The Electrochemistry of the Lead Anode in Aqueous Solutions. A Review.	J. Burbank	6-13-58
MP-6602	An X-Ray Study of Dislocation Arrays.	L. F. Vassamillet Carnegie Inst. of Tech., Pittsburgh	10-7-57
MP-6675	An Investigation of the Chemical Nature of the Organic Matter of Uraniferous Shales. Annual Report Covering the Period January 1 to December 31, 1956.	Penn. State Univ., University Park. Coll. of Mineral Industries. C. R. Kinney, R. L. Broadhead, J. T. Leonard, et al.	9-30-56

Microcards

AD-502	The Reaction of Aluminum Hydride with 3d Transition Metal Halides. Progress Report [for] March 17, 1955 to November 1, 1955.	M. J. Rice, Jr., T. R. P. Gibb, Jr., E. G. Maloni Tufts Univ., Medford, Mass.	11-1-55
AD-1489	Thermometric (Enthalpymetric) Titration of Free Acid in the Presence of Certain Hydrolyzable Ions.	F. J. Miller, P. F. Thomason	7-9-58
AD-1427	Fluids, Lubricants, Fuels and Related Materials. Quarterly Report for April, May, and June 1957.	Penn. State Univ., University Park. Petroleum Refining Lab.	6-29-57
AD-13(C) TN-32	The Oxidation of Uranium in Air: A Review of Progress to February 27, 1953.	K. Q. Bagley, D. S. Oliver Gt. Brit. Culcheth Labs., Culcheth, Lancs, England	6-5-53
AD-14(RAND)	Thermodynamic Properties of Metals.	L. W. Alvarez RAND Corp., Santa Monica, Calif.	2-18-47
AD-5226	Utilization of Heavy Water.	I. Kirshenbaum, G. M. Murphy, H. C. Urey Columbia Univ., New York. Substitute Alloy Materials Labs.	1951
AD-14B-13	Heat Transfer to Boiling Liquids Under Conditions of High Temperature Difference and Forced Convection. Final Technical Report.	S. Rankin Delaware. Univ., Newark	2-20-58
AD-14B-56-467	Ferroelectric Materials Survey with Particular Interest in Their Possible Use at High Temperatures.	C. F. Pulvari Catholic Univ. of America, Washington, D. C.	9-56

W-57-302	Critique on the Analytical Representation of Specific Heat Data. Period Covered: January 1957 to August 1957.	R. Pawel Wright Air Development Center. Materials Lab., Wright-Patterson AFB, Ohio	8-30-57
W-57-55 VI	Research on Determination of the Stability of Jet Engine Fuels. Final Report for September 1, 1956 through August 30, 1957.	A. C. Nixon, R. E. Thorpe, H. B. Minor, et al. Shell Development Co., Emeryville, Calif.	3-58
W-56-500 I	Photochemical Synthesis of Organic Fluorine Compounds. Period Covered: November 15, 1955 to November 14, 1956.	J. D. Park, J. R. Lacher Colorado. Univ., Boulder	10-31-56
W-57-185	The Effects of Nuclear Radiation on Military Specification Paints. Period Covered: September 1955 to August 1956.	L. A. Horrocks Wright Air Development Center. Materials Lab., Wright-Patterson AFB, Ohio	3-15-57
W-57-606	Organic Compounds of Gallium: A Summary of the Literature [Period Covered] November 1956 to June 1957.	A. J. Frank, R. W. Sullivan, V. W. Lichtenberg Denver. Univ., Denver Res. Inst.	9-25-57
W-57-642	Research on Thermostable Molecules and Polymers. [Period Covered] March 10, 1956 to November 30, 1957.	E. A. Lawton, D. D. McRitchie Battelle Memorial Inst., Columbus, Ohio	11-57
W-57-657	Conference on High Temperature Polymer and Fluid Synthesis [Held at Dayton, Ohio on October 23 and 24, 1957].	C. H. Schmid Wright Air Development Center. Materials Lab., Wright-Patterson AFB, Ohio	12-57

1-58-100	Synthesis and Characterization of New Vinyl Polymers. Period Covered: November 1955 to August 1957.	L. E. Coleman, Jr., W. S. Durrell Wright Air Development Center, Materials Lab., Wright-Patterson AFB, Ohio	1-58
1-58-80	Development of High-Temperature Stable Liquid Ureas and Amides.	C. C. Chappelow, Jr., R. N. Clark Midwest Research Inst., Kansas City, Mo.	1-58
1-58-100	The Chemistry of the Cross-Linking of Polyurethanes.	M. Orchin, H. Shulze, C. Reilly, et al. Cincinnati Univ. Applied Science Research Lab.	1-50
1-58-162-1 (2)	The Spectrochemical Determination of Impurities in Zirconium and Zircaloy Using the Silver Chloride Carrier Technique.	R. F. Farrell, R. M. Jacobs, N. E. Gordon Westinghouse Electric Corp. Bettis Plant, Pittsburgh	5-3-57
1-58-162-3 (2)	The Spectrochemical Determination of Boron and Cadmium in Zirconium and Zircaloy Using the Silver Chloride Carrier Technique.	R. M. Jacobs, R. F. Farrell, N. E. Gordon Same	5-2-57
1-58-162-4 (2)	The Spectrochemical Determination of Residual Hafnium in Zirconium and Zirconium Alloys.	R. M. Jacobs, R. F. Farrell, N. E. Gordon Same	5-6-57
1-58-162-5 (2)	The Spectrochemical Determination of Aluminum and Copper in Zircaloy-2 and Zircaloy-3 Using D. C. Arc Excitation and a Barium Fluoride Flux.	R. M. Jacobs, R. F. Farrell, T. F. Anater Same	5-6-57

MPD-CTA (GLA)-162-6 (Rev. 2)	The Spectrochemical Determination of Residual Aluminum in Zirconium Using Alternating Current Spark Excitation.	R. M. Jacobs, R. F. Farrell, J. F. Frain	5-2-57
MPD-CTA (GLA)-306	A Cooperative Study on the Determination of Oxygen in Zirconium.	G. W. Goward	1-8-57
MPD-CTA (GLA)-310 (Rev. 1)	Preparation of Silver Chloride.	A. Simpson	5-3-57
MPD-CTA (GLA)-315 (Rev. 1)	The Preparation of Spectrographic Standards for the Analysis of Impurities in Zirconium and Zircaloy.	G. J. Harter, R. F. Farrell	5-6-57
CTN-90	Preparation of Dense, Metal-Grade UF_4 From Ores and Concentrates.	H. G. Petrow, R. J. Allen, P. J. Magno	5-15-58

ENGINEERING

AD-32/R=2372	A Full Radiation Pyrometer Suitable for Temperature Measurements in the Range 0° to 100°C.	M. G. Davies, H. Krenberger	9-31-51
AD-736	Valves Fitted with Adjustable Microleaks. Reprinted from Vide <u>12</u> , 176-83 (1957).	J. Amoignon, J. Delchor, R. Geller France. Commissariat à l'Énergie Atomique, Paris	1957
AD-911	Observations of Stresses and Strains Near Intersections of Conical and Cylindrical Shells.	M. F. Borg David W. Taylor Model Basin, Carderock, Md.	3-56
AD-927	Aircraft Structure and Component Scattering and Activation.	P. C. DeCelles, F. L. Jenkins, J. B. Weddell Martin Co., Baltimore	2-58
AD-53598	Thermal Contact Conductance.	R. G. Wheeler	11-13-57
AD-6628	A Review of High Temperature Immersion Sensing Devices For In-Flight Engine Control.	V. D. Sanders Marquardt Aircraft Co., Van Nuys, Calif.	2-14-58
AD-6629	Nuclear Batteries. Final Progress Report for August 15, 1957 - November 15, 1957.	J. H. Coleman, A. P. Pinkerton Radiation Research Corp., New York	
PIBAL-407	Turbulent Flow in Channels with Porous Walls.	S. W. Yuan Brooklyn. Polytechnic Inst.	8-57
AD-1138 (TR)	Aerodynamic Heating Solutions for a Typical Missile Determined from Three Turbulent Boundary Layer Theories.	W. M. Burley, Jr.	8-30-57
AD-243-57(14)	The Dynamics of the Cylinder Escapement.	C. R. Steele	11-21-57

*SCTM-284-57(51)	Energy-Absorbing Characteristics of Several Materials.	V. Parfitt	10-29-57
*SCTM-372-57(14)	Nonlinear Charge Release From Highly Stressed Piezoelectric Elements.	A. Kritz	12-12-57
WAPD-A1W-P(CE)-3 (Rev. 1)	Water Height Measuring Device.	L. A. Mikoleit	10-57

METALLURGY AND CERAMICS

AD-17-200-769	The Diffusion of Fission Xenon from Metallic Uranium, by Karl-Erik Zimen and L. Dahl. Trans. from Zeitschrift für Naturforschung <u>12a</u> , 167-9 (1957).		
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539 (Vols. 1 & 2)	15 MW Gas-Cooled Closed-Cycle Reactor Power System Study. Final Report.	Ford Instrument Co., Long Island City, N.Y.	4-1-57
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5461-AMS-1	Summary of STR-SAR System Operating Conditions and Materials.	S. H. Towne	4-15-54
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5463-JBS-10	Reactivity Perturbation of Small Test Regions in a Critical Assembly.	J. B. Sampson	10-15-57
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PAR=Ph-151	Slab Experiments. IV. Comparison of Seed Types.	F. Feiner	12-56
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4879	Additions to the Library. Report for the Period June 16-30, 1958. Technical Reports and Books.	P. A. Schulze	n.d.
4879-10	Technical Abstract Bulletin. Bulletin No. U58-10.		7-15-58
4879-81	Quarterly Progress Report [for] October 1 - December 31, 1957.		4-58
4879-174 #13	Accession List No. 13. Covering the Period June 1 to June 30, 1958.	Battelle Memorial Inst. Radiation Effects Information Center, Columbus, Ohio	7-15-58
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4879-266	Hearings Before Subcommittees of the Joint Committee on Atomic Energy, Congress of the United States, Eighty-Fifth Congress, Second Session, on outer Space Propulsion by Nuclear Energy, January 22, 23, and February 6, 1958.	U. S. Congress	1958
4879-268	Hearings Before the Select Committee on Astronautics and Space Exploration, Eighty-Fifth Congress, Second Session, on H. R. 11881 [with regard to Astronautics and Space Exploration] April 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, 29, 30, May 1, 5, 7, 8, and 12, 1958.	U. S. Congress	1958
4879-270	85th Congress, 2d Session, Joint Committee Print. Proposed Euratom Agreements (with Associated Documents and Materials), Joint Committee on Atomic Energy, Congress of the United States.	Same	1958
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8227	A Generator of Fast-Rising Light Pulses for Phototube Testing.	Q. A. Kerna, F. A. Kirsten, G. C. Cox	3-24-58
8232	Elastic Scattering of 1.6-Mev Gamma Rays from H, Li, C, and Al Nuclei.	L. W. Alvarez, F. S. Crawford, Jr., M. L. Stevenson	5-7-58
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8322	Nuclear Spin of Antimony-121	H. L. Garvin, P. M. Gross	6-58

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34	Maximum Deflection of Rectangular Plates for Vacuum Tanks.	A. Schmidt	5-12-
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29	Comparison of Air - Water Cooled Coils.	W. M. Brobeck	3-20-50
100	Comparison of Air and Water Cooled Magnet Coils.	W. M. Brobeck	3-24-52
91	Heat Transfer to Water Flowing in a Rectangular Duct by Forced Convection and Nucleate.	H. R. Smith	6-24-50
	Scaling Laws for Charged Particles Moving in Electric and Magnetic Fields.	D. L. Judd	5-27-
	72" H ₂ Bubble Chamber - Optics - Theory of Light-Field Illumination.	D. U. Norgren	5-28-56
90	Large Bubble Chamber Development, Data Processing and Optical Studies - Summary of Visit to Patrick Air Force Base.	H. Bradner	5-2-50
	Large Bubble Chamber Development - 70 mm Measuring Projector - R. J. Burleigh Minutes of May 31 Meeting.		5-24-51
88	Large Bubble Chamber Development - Data Processing and Optical Studies - Minutes of Meeting, June 26, 1957.	R. J. Burleigh	5-26-51
91	Machining and Forming of Teflon	J. O. Turner	5-5-50
98	Trade Names and Suppliers for Precious Metal Brazing Alloys as Listed on Design Data No. 71.	T. B. Lewis	1-25-56
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UCRL-202	UCRL Magnet Record - Berkeley - H Type Magnets.	S. H. Auld, R. Caylor	4-10-58
UCRL-203	Bev 18 x 36 "H" Magnet II Magnetic Measurements.	L. G. Ratner	4-22-58
UCRL-204	Bevatron R. F. System - Simplified Block Diagram.	R. C. Acker	12-19-56
UCRL-205	Magnetic Amplifier Design Charts.	B. H. Smith	6-10-58
UCRL-206	72" Hydrogen Bubble Chamber - Magnet General - Eddy-Current Heating of the 72" Chamber.	M. L. Stevenson	5-2-57
UCRL-207	General Chemistry Research - High Current Cyclotron Preliminary Studies - Model Magnet Coil (1/5 Size)	R. Burleigh	5-15-58
UCRL-208	10" Bubble Chamber - The Effect of Expansion Tube Vapor Volume - Expanded Pressure.	H. P. Hernandez	7-25-55
UCRL-209	4" Bubble Chamber Development and Operation - Repressurization Time for External Expansion System.	D. B. Chelton, D. B. Mann	11-1-55
UCRL-210	10" Bubble Chamber - Test Operation With Nitrogen.	R. Blumberg	10-6-55
UCRL-211	10" Bubble Chamber Development - Electro-Mechanical Interlocks of 10" Bubble Chamber.	J. W. Mark	10-27-55
UCRL-212	10" Liquid Hydrogen Bubble Chamber Vent System.	J. Mark	12-6-55
UCRL-213	Deuterium Concentration Used During M-Runs.	J. D. Gow	1-9-57
UCRL-214	Large Bubble Chamber Development - Cryogenics - Description of Duke University He-Bubble Chamber with Piston Expansion.	H. P. Hernandez	7-25-55
UCRL-215	10" Bubble Chamber - Cryogenics - Description of Duke University He-Bubble Chamber with Piston Expansion.	D. B. Mann	11-1-55

1-2-6	Large Bubble Chamber Development - Cryogenics - Nitrogen Refrigerator.	D. B. Chelton, D. B. Mann	2-24-50
1-2-7	72" Hydrogen Bubble Chamber - Liquid Nitrogen Consumption Estimate.	K. F. Mirk	3-14-51
1-2-8	Development of MK III Measuring Projector - Theory of Detection and Measurement in the Spiral Scan - Rapid Measuring Projector.	B. H. McCormick	6-20-58
1-2-15	72" Hydrogen Bubble Chamber Fabrication - Chamber Assembly - Glass Cool Down - Summary.	L. R. Lucas	9-10-57
1-2-20	High Voltage, Low-Inductance Switch for Megampere Currents.	W. R. Baker	7-10-58
1-2-22	Data Analysis Development - Optical Systems Development - 72" Chamber - Test of Four FX 26 Xenon Flash Tubes.	J. Mark	7-10-58
1-2-22	10" Bubble Chamber - Test Operation With Nitrogen - Data Plotted VS Time.	B. Martin	9-30-55
1-2-23	MTA Mark I Cavity Excitation Equipment - Development of a Large Diameter Rotating Vacuum Seal.	W. N. Ross	6-15-52
1-2-24	Measurement of the Shape of the Light Pulse Generated by Mercury-Capsule Light Pulsar 4V5572.	F. Kiroten	5-14-58

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72" Bubble Chamber. Chamber Assembly. Hydraulic Jack Test.

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R. Smits,
F. Tanforan