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UNIVERSITY OF CALIFORNIA

Radiation Laboratory
Berkeley, California

Contract No. W-7405-eng-48

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

September 3, 1958

Printed for the U. S. Atomic Energy Commission

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 deNemour & 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 AUGUST 16 - 31, 1958

Radiation Laboratory
University of California
Berkeley, California

September 3, 1958

Index Number	Title	Author	Date
	BIOSCIENCES		
AERE-C/R-2583	Radioactive and Natural Strontium in Human Bone. U.K. Results for 1957.	F. J. Bryant, E. H. Henderson, G. S. Spicer, et al. U. K. Atomic Energy Authority. Research Group. Chemistry Div. Woolwich Outstation, England	5-58
AERE-MED/R-2586	Organic and Inorganic Urinary Excretion Values in Normal and Irradiated Subjects Including Observations on the Preservation of the Urine Sample.	C. Sanders, P. C. Long, D. H. Pinnock	5-58
CRB-785	Population Risks from Radiation.	H. B. Newcombe Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	6-58
HW-52787(Rev.)	A Scintillation Transistorized Alpha Hand Counter.	W. G. Spear	3-19-58
K-1380	Studies in Nuclear Safety. Lectures Presented at the Nuclear Safety Training School, Conducted by Union Carbide Nuclear Company, June 3-14, 1957.	H. F. Henry, comp. and ed. Oak Ridge Gaseous Diffusion Plant, Tenn.	8-14-58
KIR-206/58	Radiochemical Analysis of Fallout in Norway. Communication No. 7.	H. Bergh, G. Finstad, L. Lund, et al. Norwegian Defence Research Establishment, Oslo	6-58

LA-2224	Rate of Recovery from Radiation Damage and its Possible Relationship to Life Shortening in Mice.	J. B. Storer	6-2-58
LF-110	Studies of the Radiostrontium Content of Fall-Out and it Removal from Water. (Thesis)	T. R. Ostrom Harvard Univ., Cambridge, Mass.	5-55
RM-309(RAND)	Close-In Fallout.	Rand Corp., Santa Monica, Calif.	9-30-57
RM-1969(RAND)	Radioactive Contamination from a Multibomb Campaign.	S. M. Greenfield Same	1-6-56
TOI-W-56-2	The Distribution of Thermal Ineffectives.	R. A. Langevin, R. Greenstone, C. O. Elder Technical Operations, Inc., Arlington, Mass.	5-1-57
UR-524	Amount of Plasma Proteins and Red Blood Cells and the Vascular-Extravascular Exchange of Plasma Proteins in the Rat as Measured with I^{131} and CR^{51} Labels.	W. C. Dewey	7-1-58
UR-526	Indirect Effects of X-Irradiation on the Thyroid of the Chick Embryo.	F. T. Brayer, S. R. Glasser, G. W. Casarett, et al.	8-15-58
WAPD-PWR-CP-3052	Decontaminability of Structural Materials and Surface Coating for Use in Nuclear Installations.	R. Lloyd	5-28-57

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CHEMISTRY

AERE-C/R-2502	The Effect of Pile Radiation on the Reaction Between Hydrogen and Graphite.	N. S. Corney, R. B. Thomas	6-58
AERE-C/R-2527	The Analysis of Thorium-Magnesium Binary Alloys.	G. W. C. Milner, J. W. Edwards	4-58
AERE-R/R-2484	Instruments for the Measurement of Pressure and Differential Pressure of High Temperature Fluids.	S. T. Naish, T. R. Moss	4-58
AERE-T/M-162	On the Propagation of Thermal Waves in Media with Stored Energy.	A. J. E. Foreman	5-58
CF-58-4-131	Solution Corrosion Group. Quarterly Report for the Period Ending April 30, 1958.	J. C. Griess, H. C. Savage, J. L. English, et al. Oak Ridge Nat'l Lab., Tenn.	4-30-58
CF-58-6-86	Volatility Studies of Some Fission Product Fluorides.	W. A. Brooksbank, Jr., R. J. Carter, M. F. Osborne Same	6-25-58
DP-297	Dissociation of Nitric Acid in Aluminum Nitrate Solutions.	R. C. Axtmann, B. B. Murray	6-58
GAT-230	Kinetics of the Reaction of Uranium Hexafluoride with Sodium Fluoride Powder, Pellets, and Crushed Pellets.	F. E. Massoth, W. E. Hensel, Jr.	4-24-58
HW-54032	The Influence of the Matrix on the Carrier Distillation of Metallic Impurities from PuO_2 and U_3O_8.	R. J. Kofoed, Jr.	4-10-58
IDO-14437	Extraction, Spectrophotometric Method Specific for Microgram Amounts of Uranium.	G. L. Booman, W. J. Maeck, M. C. Elliott, et al. Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	7-28-58

ILO-14438	Extraction, Direct Spectrophotometric Method Specific for Large Amounts of Uranium.	W. J. Maeck, G. L. Booman, M. C. Elliott, et al. Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	7-28-58
*ICO-AM/W-105	The Absorptiometric Determination of Iron in Plutonium Metal (α' Dipyridyl Method).	U. K. Atomic Energy Authority Industrial Group. Windscale Works, Sellafield, Cumb., England	10-57
*ICO-AM/W-106	The Absorptiometric Determination of Silicon in Plutonium Metal.	Same	10-57
*ICO-AM/W-109	The Absorptiometric Determination of Nickel in Plutonium Metal (Alpha Furil Dioxime).	Same	2-58
*ICO-AM/W-111	The Determination of Silicone Oil in Pile Filters (Infra-red Spectroscopy).	Same	2-58
ISC-867	Isotopic Equilibria of Nitrosyl Chloride.	R. Schaeffer, H. Smith Ames Lab., Ames, Iowa	6-4-57
ISC-976	Semi-Annual Summary Research Report in Chemistry for July - December, 1957.	Same	3-15-58
ISC-1030	Bibliography of Titles of Articles in the Field of Nuclear Quadrupole Resonance Spectroscopy of Solids.	R. G. Barnes Same	5-1-58
JENER-55	A 3-Staged Method for the Recovery of Plutonium from Irradiated Fuels.	R. O. Lingjaerde Joint Establishment for Nuclear Energy Research, Kjeller, Norway	6-58
MISC-1958-282	Organo-Metallic and Organo-Metalloidal High Temperature Lubricants and Related Materials. Progress Report [for] March 31, 1958 to June 30, 1958.	H. Gilman, B. J. Gaj, W. J. Trepka. Iowa State Coll., Ames	n.d.

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NACA-RM-E54D27	High-Temperature Lubricants and Bearings for Aircraft Turbine Engines.	Lewis Flight Propulsion Lab., Cleveland	7-19-54
NACA-TN-4265	Composition and Thermodynamic Properties of Air in Chemical Equilibrium.	W. E. Moechkel, K. C. Weston Same	4-58
NLCO-732	Laboratory and Pilot Plant Evaluation of Denison Uranium Concentrate.	C. T. Hicks, J. H. Krekeler, J. R. Nelli	4-2-58
NLCO-735	Laboratory and Pilot Plant Evaluation of Faraday Uranium Concentrate.	C. T. Hicks, J. H. Krekeler, J. R. Nelli	4-17-58
NLCO-736	Laboratory and Pilot Plant Evaluation of Pronto Uranium Concentrate.	C. T. Hicks, J. H. Krekeler, J. R. Nelli	4-24-58
NLCO-739	Laboratory Evaluation of Lakeside Monarch Uranium Ore.	C. T. Hicks, J. H. Krekeler, J. R. Nelli	4-14-58
NLCO-743	The Preparation of Uranium Hexafluoride from Uranium Ores and Concentrates by Fluoride Volatility Processes. An Annotated Bibliography.	E. W. Mautz, C. J. Fetner	2-26-58
NLCO-744	Literature Search TBP-Kerosene Solvent Degradation.	R. H. Ellerhorst, R. K. Klopfenstein	2-11-58
*NP-2180	A Method for the Regeneration and Reactivation of Solid Adsorbing Materials Used in Purification of Volatile Metal Chlorides. (Translation of a German Patent.)	Acid Plant Schweizerhall, Schweizerhall, Switzerland	11-15-47
*NP-6595	Fluorescence and Conductivity Phenomena. Quarterly Progress Report No. 3 for August, September, October (1957).	H. Kallmann New York Univ., N.Y.	1-58

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NP-6615	Progress Report No. 3 [for] December 1, 1957 to February 28, 1958.	J. F. Andrew, J. Repetski, H. E. Strauss, et al. Buffalo. Univ.	3-1-58
NP-6616	Research on Growing of Cadmium Sulfide Crystals for Dosimeter Purposes. Quarterly Report No. 2 for Period July 17, 1957 to October 17, 1957.	J. E. Powderly and K. E. Bean. W. E. Medcalf, ed. Eagle-Picher Research Labs. Mining and Smelting Div., Miami, Okla.	n.d.
NP-6637	Void Volumes in Subcooled Boiling Systems. Technical Report No. 12.	P. Griffith, J. A. Clark, W. M. Rohsenow Mass. Inst. of Tech., Cambridge. Div. of Industrial Coop.	3-1-58
NP-6642	Research and Development on Oriented Polymers for Radiation Resistant Application. Quarterly Progress Report.	C. G. Overberger, F. M. Beringer, A. Borchert, et al. Brooklyn. Polytechnic Inst.	3-58
NP-6653	The Industrial Utilisation of Fission Products.	R. Roberts U. K. Atomic Energy Authority. Res. Group. Atomic Energy Res. Establishment, Harwell, Berks, England	[1955]
NP-6662	Synthesis and Evaluation of High Temperature Antioxidants for Synthetic Hydraulic Fluids and Lubricants. Quarterly Progress Report No. II [for] August-October 1957. (Report No. 6).	R. M. Silverstein Stanford Res. Inst., Menlo Park, Calif.	11-15-57

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NP-6664	Research and Development of Hi-Temperature Nuclear Radiation Resistant Elastomers. Quarterly Progress Report No. 2 [for] October 1 to October 31, 1957; January 20 to March 15, 1958.	O. Grace, R. E. Isley, B. Hunt, et al. Burke Res. Co., Van Dyke, Mich.	3-21-58
NRL-5161	Effect of Neutron Irradiation on the Curie Temperature of a Variety of Ferrites.	E. I. Salkovitz, G. C. Baily, A. I. Schindler	7-1-58
RCSC-8A	Weight and Activity of Fission Products Formed in Reactor Fuel.	G. N. Walton Gt. Brit. Atomic Energy Res. Establishment, Harwell, Berks, England	10-1-52
RDB-(C)-TN-11 RD(C)/TN-11	The Preparation of High Purity Metals--Uranium and Thorium. A Review of Progress to August 1, 1952.	D. S. Oliver Gt. Brit. Culcheth Labs., Culcheth, Lancs, England	8-8-52
WADC-TR-56-331 (Pt. II)	Development of High Temperature Resistant Rubber Compounds. Period Covered: July 15, 1956 to November 30, 1957.	R. A. Hayes, F. M. Smith, W. A. Smith, et al. Firestone Tire and Rubber Co., Akron, Ohio	1-24-58
WADC-TR-57-177 (Pt. 2)	Engine Oil Development. Final Report [for the Period] November 1, 1956 to February 28, 1958.	C. L. Mahoney, W. W. Kerlin, E. R. Barnum, et al. Shell Development Co., Emeryville, Calif.	2-58
WADC-TR-57-764	Fluorine Containing Chelate Compounds.	G. R. Buell Wright Air Development Center. Materials Lab., Wright-Patterson AFB, Ohio	11-57

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WADC-TR-397/10	Thermal Conductivity of Teflon, Kel-F, and Duroid 5600 at Elevated Temperatures.	A. W. Schultz, A. K. Wong Watertown Arsenal, Mass.	3-58
WAPD-SFR-PD-105	Crud Absorption by Ion Exchange Resins.	G. P. Simon, W. J. Singley	
WAPD-TM-136	Primary Coolant System Activities Due to a Burst Source of Fission Products.	P. W. Frank, B. D. O'Reilly	5-58

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ENGINEERING

FWE-165	Operation Buffalo Target-Response Tests. Effects of Blast on Reinforced Concrete Slabs, and the Relationship with Static Loading Characteristics.	I. Ll. Davies U. K. Atomic Energy Authority. Weapons Group. Atomic Weapons Research Establishment, Aldermaston, Berks, England and Technical Cooperation Program, AEC.	8-57
*NACA-TN-4047	A Study of the Motion and Aerodynamic Heating of Missiles Entering the Earth's Atmosphere at High Supersonic Speeds.	H. J. Allen, A. J. Eggers, Jr. Ames Aeronautical Lab., Moffett Field, Calif.	10-57
*NACA-TN-4095	An Analysis of the Effect of Several Parameters on the Stability of an Air-Lubricated Hydrostatic Thrust Bearing.	W. H. Roudebush Lewis Flight Propulsion Lab., Cleveland	10-57

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METALLURGY AND CERAMICS

AERE-M/M-193	A Preliminary Study of the Production and Properties of Beryllium Sheet.	N. A. Hill	4-58
CR-MET-763	Pre-Irradiation Tests on U-Si Alloys.	L. M. Howe, L. G. Bell Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	5-58
CR-MET-782	Point Defects in Platinum.	G. R. Piercy Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	6-58
HW-55778	Transformation Kinetics of Plutonium. Part I. A Study of the Beta to Alpha and Alpha to Beta Transformations.	R. D. Nelson	4-17-58
*IGR-TM/CA-081	Fast Reactor Fuel Elements: Destruction Tests Using Niobium and Vanadium Cans. Review of Progress to July 31, 1957.	K. G. Eickhoff, R. Hulse U. K. Atomic Energy Authority. Industrial Group Capenhurst Works, Capenhurst, Ches., England	7-31-57
MISC-1958-283	Research on the Delay Time Study on Metal Single Crystals. Final Report.	R. H. Baskey Horizons Inc., Cleveland	7-1-58
MISC-1958-285	A Calorimetric Study of Order in Au_3Cu. Technical Report No. 1.	F. d'Heurle, P. Gordon Illinois Inst. of Tech., Chicago. Dept. of Metallurgical Engineering	7-58
MISC-1958-287	Substructure Characteristics of Fine-Grained Metals and Alloys Disclosed by X-Ray Microscopy and Diffraction Analysis. Part I. Description and Application of Diffraction Method. Part II. Description of X-Ray Double-Crystal Diffractometer Combining X-Ray Microscopy and Diffraction Analysis. Technical Report No. 9	Pt. I. by S. Weissmann; Pt. II. by S. Weissmann and K. A. Turner, Jr. Rutgers Univ., New Brunswick, N. J. Materials Research Lab.	8-15-58

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MISC-1958-288	On the Mechanism of Recrystallization of Aluminum. Technical Report No. 10.	S. Weissmann Rutgers Univ., New Brunswick, N. J. Materials Research Lab.	8-15-58
MISC-1958-289	The Formation of Cracks in Magnesium Oxide Single Crystals. First Technical Report.	R. J. Stokes, T. L. Johnston, Choh Hsien Li Honeywell Research Center, Hopkins, Minn.	7-58
MISC-1958-290	A Preliminary Evaluation of the Silver Chloride - Alumina System as a Means of Studying Fine Particle Strengthening of Solids. Second Technical Report.	T. L. Johnston, R. J. Stokes, Choh Hsien Li Same	7-58
MISC-1958-291	The Growth and Study of Ferromagnetic Spinel Single Crystals. Technical Report No. 1.	W. H. Bauer, K. M. Mers, P. D. Baba New Jersey. Ceramic Research Station, New Brunswick	6-58
NAA-SR-75(Del.2)	The Effect of Cyclotron Irradiation on the Physical Properties of Metals.	A. B. Martin, M. Tarpinian, R. R. Eggleston North Amer. Aviation, Inc., Downey, Calif.	1-8-51
NACA-TN-4089	The Mechanism of Thermal-Gradient Mass Transfer in the Sodium Hydroxide-Nickel System.	C. E. May Lewis Flight Propulsion Lab., Cleveland	9-57
NACA-TN-4224	Effect of Overheating of Creep-Rupture Properties of M-252 Alloy.	J. P. Rowe, J. W. Freeman Michigan. Univ., Ann Arbor	7-31-56

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*NP-6628	Selection of Materials for Aircraft Auxiliary Gas Containers.	C. T. Olofson, G. E. Faulkner, H. R. Ogden, et al. Battelle Memorial Inst. Titanium Metallurgical Lab., Columbus, Ohio	12-6-57
*NP-6634	The Reheological Properties and Strengths Exhibited by Adhesive Materials When Present as Bonds. Final Report.	H. Tarkow, C. B. Norris, J. T. Drow, et al. Forest Products Lab., Madison, Wis.	(1957)
*NP-6640	Compilation of Available Information on Ti-6Al-4V Alloy.	R. W. Douglas, F. C. Holden Battelle Memorial Inst. Titanium Metallurgical Lab., Columbus, Ohio	2-28-58
*NP-6645	The Effect of Stress on the Interactions Between Solid and Liquid Metals and Alloys. Interim Progress Report.	W. A. Morgan Cambridge Univ., England	1-51
*NP-6647	The Physical and Chemical Changes in Metals Associated with a Liquid Metal Environment. Part I. The Interaction of Sodium and Grey Irons. Progress Report.	A. A. Smith, G. C. Smith Same	12-53
*NP-6648	The Physical and Chemical Changes in Metals Associated with a Liquid Metal Environment. Report on Progress: The Interaction of Sodium and Ferrous Materials.	A. A. Smith Same	5-58
*NP-6649	The Physical and Chemical Change in Metals Associated with a Liquid Metal Environmnet. The Interaction of Sodium and Ferrous Materials at High Temperatures. (Thesis)	A. A. Smith Same	8-55
*NP-6652	Closed-Cyclo-Gas-Turbine-Reactor-Power-Plant.	W. Winkler Reaktor AG. Wurenlingen, Switzerland	11-25-57

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*NP-6654	The Shear Modulus of Titanium and its Alloys.	Battelle Memorial Inst. Titanium Metallurgical Lab., Columbus, Ohio	3-31-58
*NP-6659	The Use of X-Ray Diffraction for the Study of Titanium and Titanium Alloys.	J. R. Doig, Jr. Same	3-5-58
NYO-2160	Investigation of Phenomena Related to Liquid Metal Corrosion. Period Covered: October 1, 1958 to July 1, 1958.	D. A. Stevenson, J. Wulff Mass. Inst. of Tech., Cambridge	8-5-58
NYO-4684	The Solubility of Iron-Nickel Alloys in Liquid Lead - 700 to 1100°C.	B. Fleischer, J. F. Elliott Massachusetts Inst. of Tech., Cambridge. Dept. of Metallurgy	n.d.
NYO-7303	Origin of Recrystallization Nuclei. Final Technical Report.	L. P. Stone, J. P. Nielsen N. Y. Univ. N. Y. Coll. of Engineering	1-31-58
*RDB(C)TN-101	Fast Reactor--Physical Properties of Materials of Construction. Review of Progress from April 1, 1954 to October 1, 1954.	I. P. Bell U. K. Atomic Energy Authority. Industrial Group. Culcheth Labs., Culcheth, Lancs, England	11-18-54
*SC-3859(TR)	Properties of Solid Solutions of Lead Titanate-Lead Zirconate. Technical Report No. 2.	D. Berlincourt Clevite Res. Center, Cleveland	8-56
SCNC-259	Methods for Fabrication and Properties of Porous Uranium Fuel Elements.	I. Sheinhartz Sylvania-Corning Nuclear Corp., Bayside, N. Y.	5-58

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*TML-96	Descaling and Cleaning of Titanium and Titanium Alloys.	D. W. Stough, H. S. George, E. B. Friedl, et al. Battelle Memorial Inst. Titanium Metallurgical Lab., Columbus, Ohio	3-28-58
*UK/C/6/114	Experience at Chalk River of Irradiated Uranium Oxide. [Paper Presented at] Sixth UK/Canada Technical Conference, Chalk River, Ontario, October 21-22, 1957.	J. A. L. Robertson Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	9-57
*WADC-TR-55-87 (Pt. V)	Treatment of Metal Surfaces for Adhesive Bonding. Period Covered: August 1956 to June 1957.	E. Thelen, R. Hollinger, T. I. Haigh, Jr., et al. Franklin Inst. Labs. for Research and Develop., Philadelphia	7-16-57
*WADC-TR-57-514	Development of Electroplating Processes to Eliminate Hydrogen Embrittlement in High-Strength Steel. Period Covered: February 1956 to May 1957.	J. E. Chilton Stanford Res. Inst., Menlo Park, Calif.	11-4-57
*WADC-TR-57-577 (Pt. I)	Development and Evaluation of Insulating Type Ceramic Coatings. Part I. Development and Small Scale Testing. Period Covered: May 15, 1956 to June 15, 1957.	S. Sklarew, C. A. Hauch, A. V. Levy Marquardt Aircraft Co., Van Nuys, Calif.	8-15-57
*WADC-TR-57-535	A Study of the Possibility of Reinforcing High-Temperature Alloys by Addition of Refractory Powders. Period Covered: April 1956 to July 1957.	J. D. Burney Mallory (P.R.) and Co., Inc. Metallurgical Res. Lab., Indianapolis	8-30-57
*WADC-TR-57-630	The Determination of the Effect of Heat Treatment on the Elevated Temperature Stress-Stability of Titanium Alloys. Period Covered: May 1956 to May 1957.	G. A. Lenning, N. L. Greenlee, W. M. Parris, et al. Titanium Metals Corp. of America, N. Y.	9-30-57

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*WADC-TR-58-11	Preparation of Protective Coatings by Electrophoretic Method. Period Covered: March to October 1957.	A. C. Werner, R. J. Abelson Vitro Labs., West Orange, N. J.	11-30-57
*WADC-TR-58-20	Development of Improved Titanium Alloys for Application at Elevated Temperatures. Period Covered: February 1, 1957 to December 31, 1957.	B. S. Lement Manufacturing Labs., Inc., Boston	1-31-58
*WAPD-CTA(ED)18	Wear and Friction of Materials on the Pendulum Slide Machine.	N. B. Dawes	11-23-55
*WAPD-FE-132	Zirconium Cost Reduction Program. Part III. The Zirconium Scrap Problem.	K. M. Goldman	6-30-54
*WAPD-RM-17	Effect of Nitrogen and Carbon on the Corrosion of Zirconium in 600°F Water.	B. Lustman	7-26-50
*WAPD-T-314	Application of Zirconium in Atomic Energy.	B. Lustman	2-15-56
YAEC-58	Silver Boron-Carbide Cermets (5, 10, 15, and 20 to 32 Weight Percent Boron Carbide).	L. Lewis	6-18-58

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PHYSICS

AERE-M/R-2573	The Nuclear Magnetic Moment of ^{239}Pu.	J. Butterworth	5-58
ANL-5868	Physics Division. Summary Report.		5-58
BNL-468	Preliminary Tests of 6810 and 6810-A Response Time.	R. L. Cohen	[9-57]
CERN-58-11	The Handling Equipment for the Radiation Shielding Blocks of the CERN Proton Synchrotron.	A. H. Achermann	6-58
CERN-58-16	4. Design of R. F. Modulation Schemes. Some Problems in the Design of a 100 MeV Intersecting-Beam Electron Accelerator.	M. J. Pentz	7-58
CERN-PS/JGL-4	Radiation Compression in Plasma.	J. G. Linhart	5-58
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UCID-228	10" Bubble Chamber Regenerator Tests.	D. W. Bartholomew	8-31-55
UCID-229	72" Bubble Chamber Magnet Yoke - Estimate of Additional Cost for Cutting Yoke Log.	W. Eaton	9-15-55
UCID-230	4" Bubble Chamber First Run with Fast Compression.	H. P. Hernandez	3-11-57
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UCID-233	General Physics Research - Alvarez's Group - Characteristics of 90° K Beam.	F. S. Crawford	2-8-56
UCID-234	Large Bubble Chamber Development Data Processing and Optical Studies Accuracy Criteria for 2nd "Big Reader".	H. Bradner	6-6-57
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UCID-236	Bubble Chamber Magnet AEC 6897, Magnet Test 22202, Gap Geometry for Ten-Inch Bubble Chamber.	P. G. Watson	10-8-56
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UCID-242	Reactions Produced by μ Mesons in Hydrogen.	Ia. B. Zeldovich	3-21-54
UCID-243	72 Bubble Chamber Jobs.	H. P. Hernandez	8-7-58
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UCID-248	10" Bubble Chamber - Vacuum Tank 50 psig Hydrostatic Test.	H. P. Hernandez	11-1-55
UCID-249	10" Bubble Chamber - Bevatron Operation December 20, 1955 - Engineer Data Schedule.	H. P. Hernandez	12-20-55
UCID-250	10" Bubble Chamber - First Bevatron Run December 20, 1955 - Engineering Objectives.	H. P. Hernandez	12-19-55
UCID-251	10" Bubble Chamber Log Notes From Third Run.	H. P. Hernandez	1-24-56
UCID-252	10" Bubble Chamber - Run 2/27 to 3/9 - Daily Deliveries of Liquid Hydrogen.	R. C. Mathewson	3-14-56
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[illegible]-261	Large Bubble Chamber Development - Cryogenics 72" Bubble Chamber Thermocouple Calibration.	H. C. Hitchcock	6-[illegible]
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UCID-300	72" Bubble Chamber - Chamber Assembly - Liquid Hydrogen Volume.	Y. Maruyama	4-9-57
UCID-301	72" Hydrogen Bubble Chamber - Expansion Line Bending.	L. R. Lucas	4-11-57
UCID-302	72" Hydrogen Bubble Chamber - Inflatable Gasket.	L. R. Lucas	5-8-57
UCID-303	72" Hydrogen Bubble Chamber - Top Plate Temperature Sensitivity.	L. R. Lucas	10-22-57
UCID-304	Heavy Ion Accelerator - Drift Tube Alignment.	F. F. Fletcher	6-28-56
UCID-305	Radius and Energy of Ions in Deflector Channel of 60" Cyclotron.	L. Neher	5-24-48
UCID-306	Internal Beam Deflection.	G. Bernard Rossi	11-6-53
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UCID-310	72" Hydrogen Bubble Chamber - History 1 July 1957 to 1 July 1958.	H. P. Hernandez	7-31-58

UCID-311	Estimated UCRL Manyears Effort for Design and Construction of Bevatron (per C. E. Androssen Memo of 4-10-52 to Brobeck).	D. T. Scalise	4-17-52
UCID-312	Bevatron Costs 6-30-52.	D. T. Scalise	8-29-52
UCID-313	Bevatron Shielding - Some Comments on Fabrication and Cost of Heavy Aggregate Blocks.	A. O. DuBois	7-31-56
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UCID-317	A Liquid Hydrogen, Deuterium and Helium Target for Use With High Energy Machines.	R. Byrne	8-9-54
UCID-318	Bevatron Experimental Facilities 6" - 16,000 Gauss Air Gap "C" Magnet.	K. H. Lou	12-13-56
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UCID-320	350 Mev Pair Counter Magnet.	H. P. Hernandez	7-6-49
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UCID-325	Characteristic Curves of Diffusion Pumps Commonly Used at UCRL.	H. P. Hernandez	2-27-5[illegible]
UCID-326	Safety Recommendations Liquid Hydrogen and Deuterium Targets with Mylar Windows. Ref. Drgs. 7A3643, 7A2963, [illegible]	R. C. Matheuson	4-9-5[illegible]

[illegible]-28 [illegible]	Aberration Measurements. 8" Bore 16-32-16 Quadrupole Assembly.	L. G. Ratner	8-8-58
[illegible]-18 [illegible]	8" Bore 16" Long Quadrupole Lens Magnetization.	L. G. Ratner	8-19-58

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ER-566	Medium Power Silicon Rectifiers - 1 to 3 AMP. 400v Piv.	I. C. Lutz	7-28-58

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	184" Cyclotron Meson Cave. Time of Flight Hole. Final Location in Meson Cave.	W. O. Brunk	8-[illegible]
	Bent Crystal γ Ray Spectrometer. Sheffield Precisionaire Gage Schematic.	R. Peters	8-19[illegible]