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UNIVERSITY OF CALIFORNIA

Radiation Laboratory  
Berkeley, California

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LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED IN THE UCRL  
INFORMATION DIVISION DURING THE PERIOD OF JULY 16-31, 1955.

August 2, 1955

Printed for the U. S. Atomic Energy Commission

LIST OF CODES FOR REPORT NUMBERS

ACCO -American Cyanimid Company  
AEP -Monsanto Chemical Company  
ALCO -American Locomotive Company  
AMF -American Machine & Foundry Co.  
ANL -Argonne National Laboratory  
ANP -Aircraft Nuclear Propulsion Project  
APEX -General Electric Company, ANP Project  
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.  
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)  
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  
UWFL -University of Washington Applied Fisheries Laboratory  
WAPD -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 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.

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LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED IN THE UCRL  
INFORMATION DIVISION DURING THE PERIOD OF JULY 16-31, 1955

Radiation Laboratory, Department of Physics  
University of California, Berkeley, California

August 2, 1955

<u>Index Number</u>	<u>Title</u>	<u>Author</u>	<u>Date</u>
<u>BIOSCIENCES</u>			
CEA-301	Dosage Du Radon Dans L'Air	G. Delibrias France. Commissariat A L'Energie Atomique Paris	1954
HW-36734	The Absorption of Fission Products by Plants	J. H. Rediske J. F. Cline A. A. Selders	5-17-55
*ID-B-1 (Rev.)	General Rules and Procedures Concerning Radio- active Hazards.		8-47
*IDD-5	Reference on Therapeutic and Tracer Uses of Radio- isotopes; A Bibliography of Useful and Significant Papers in this Field.		8-15-50
*MLRR-351	Toxicity of Sodium Borohydride, Trimethyl Borate, Lithium Borohydride, Potassium Fluoborate and Sodium Hydride.	Colborn T. Blaisdell Chem. Corps Med. Labs., Army Chem. Center, Md.	3-55
*MSH-1	The Dosimetry of the Radioactive Isotopes; Progress Report For February 15 - April 14, 1949.	Robert Loevinger Mount Sinai Hosp., New York	6-1-49
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*MSH-2	Progress Report for April 15 - October 14, 1949 (On Measurements On a Thin Source of P-32)	Robert Loevinger Mt. Sinai Hosp., New York	10-25-49
NBS-4122	A Jerkometer For Ballistocardiography	Thomas A. Perls Charles W. Kissinger	6-55
NM 006 012 04. 75	Steroidogenesis by Intact Calf Adrenals Perfused in Vitro.	George Rosenfeld Naval Med. Res. Inst., Bethesda, Md.	12-22-54
NM 006 012 04. 78	Sodium-Retaining Material in Calf Adrenal Perfusates	George Rosenfeld Frank Ungar E. Rosenberg, et al. Same	1-29-55
NM 006 012 04. 79	The In Vitro Influence of Bacterial Pyrogens on the Adrenocortical Function of Perfused Calf Adrenals	G. Rosenfeld Same	1-29-55
NRL-4571	A Simple Meter for Radioactive Fall Out	C. C. Klick H. Rabin J. J. Lambe Nav. Res. Lab.	6-14-55
ORO-127 (Suppl. )	Teletherapy Design Problems III - Quarterly Progress Report - January 1 - March 31, 1954		
UCLA-340	Gonad Dose During Routine Roentgenography	M. S. Billings A. Norman M. A. Greenfield	7-22-55
UR-396	The Early Fate of Polonium <sup>210</sup> in Cats. I. Gastro-intestinal Administration Studies. II. Intravenous Administration Studies	P. E. Morrow Frank A. Smith R. J. Della Rosa, et al.	6-30-55

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UR-398	The Sub-Fabric Flash Burn: A Study of Cover Factor in Its Effect on Protectivity of Cotton Oxfords	George Mixter, Jr.	6-30-55
UR-401	The Relationship of Thermally Induced Hemoglobinemia to Volume of Skin Burn	J. L. Lyon A. J. Emery, Jr. H. E. Pearse T. P. Davis	6-30-55
UR-402	Is the Concept of "Critical Organ" Valid in Determining The Maximum Permissible Level for Exposure to Radioactive Materials?	J. N. Stannard	6-30-55
USNRDL-TR-33	A Standard Roentgen Ray Facility	L. E. Hollander Naval Radiological Defense Laboratory	2-9-55

CHEMISTRY

*BR-613	Fluorokerosene - Production by the Vapor Phase $\text{CoF}_3$ Process. Part 1. Laboratory Scale Work.	A. M. Dawson Imperial Chem. Industries, Ltd. Gen. Chem. Div., Widnes, Lancs, Eng.	6-14-45
*BR-687	Note on the Determination of Manganese (0 to 1% ) in Decium Metal.	J. Haslam F. R. Russell Same	2-6-46
*BR-692	Fluorokerosene by the Vapour Phase $\text{CoF}_2$ Process. Part 2. Semitechnical Work.	D. F. Barratt Same	2-20-46
*CAP-TM-4	The Halogen Fluorides--A New Group of Chemical Reagents.	T. J. Brown R. A. Mascall Gt. Brit. Capenhurst Works, Capenhurst, Ches., England	10-16-53
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| *CCC-1024-<br>TR-12  | Vapor Pressure Correlation for Alkyl Diborane and Trialkyl Boranes.   | W. J. Cooper<br>P. A. Joyner<br>Callery Chem.<br>Co., Penna.  | 3-9-54  |
| *CCC-1024-<br>TR-93  | A Phase Rule Study of the System Calcium Chloride-Lithium Chloride-Potassium Chloride.  | E. K. Wallace<br>M. B. Cannon<br>N. Norris, et al.<br>Penna. Coll. for<br>Women, Pittsburgh                             | 2-8-55  |
| *CCC-1024-<br>TR-99  | Development of Instrumental Methods for the Determination of Boron.   | P. L. Pickard<br>J. R. Kenton<br>W. E. Naptune<br>Okla. Univ.,<br>Norman  | 3-3-55  |
| *CCC-1024-<br>TR-102 | Study of Chelating Agents for the Determination of Boric Acid in Aqueous Solutions.   | D. D. DeFord<br>C. A. Lucchesi<br>Northwestern Univ.,<br>Evanston, Ill.   | 3-18-55 |
| *CCL-5.39            | (Hydraulic Fluids, Lubricants, and Related Materials).<br>High Temperature Antioxidants for Synthetic Base Oils.<br>Evaluation of Additives and Mechanism Studies. Quarterly<br>Progress Report (For) Period Ending March 25, 1955. | James W. Cole, Jr.<br>Donald R. Campbell<br>Robert N. Lawhorn<br>Virginia Univ.,<br>Charlottesville,<br>Cobb Chem. Lab. | 3-55    |
| *CEA-21              | Dosage Du Glucinium Dans Le Beryl.  | M. Kremer<br>France. Commissariat<br>A L'Energie Atomique<br>Paris  | 5-49    |

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*CEA-22	Traitement Des Concentres de Madagascar.	P. Mouret A. Madinier Same	6-49
*CEA-42	A Mass Spectrometer for the Rapid Analysis of Gaseous Mixtures.	C. Cassagnol Y. Ortel J. Taieb Same	1950
*CEA-79	Note on Measurement of Thermal Conductivity of Sintered Uranium Dioxide.	M. Englander Same	6-51
CEA-308	Realisation D'un Separateur Electromagnetique D'Isotopes Application A L'Etude de $^{93}\text{Mo}$ et $^{93}\text{Tc}$	R. Bernas Same	1954
CEA-337	Table De Distribution Des Perodes Des Noyaux Radioactifs	P. Gugenberger Same	1954
CEA-345	Geochimie et Prospection Miniere	R. Le Caignec Same	1954
*CRL/AE-124	The Separation and Quantitative Estimation of Platinum, Palladium, Rhodium, and Iridium on Paper Strips.	F. H. Burstall N. F. Kember R. A. Wells Gt. Brit. Chem. Research Lab., Teddington, Eng.	1-55
ISC-604	The Stability of the Rare Earth Complexes With N-Hydroxyethylethylenediaminetriacetic Acid	F. H. Spedding J. E. Powell E. J. Wheelright	5-19-55
ISC-611	A Laboratory Method for Separating Nitrogen Isotopes by Ion-Exchange	F. H. Spedding J. E. Powell	6-9-55

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*JENER-35	A New Method for Extraction of Radioactive Phosphorus-32.	K. Samsahl K. Taugbol Joint Establmt., for Nuclear Energy Res., Kjeller, Norway	1955
KAPL-1067	The Reaction Between Lithium and Hydrogen at Temperatures Between 29°C $\approx$ 250°C	Edwin E. Swain, Jr. Frederick K. Heumann	3-1-54
LA-1890	The Preparation and Crystal Structures of Lead and Mercury Polonides	W. G. Wittemand Angelo L. Giorgi Dwayne T. Vier	7-12-55
*MCC-1023- TR-117	Boron Analysis by Neutron Absorption. Final Report.	R. P. Hamlen W. S. Koski Johns Hopkins Univ., Baltimore	2-55
*MCC-1023- TR-120	Study of Compounds of Boron by Use of Nuclear Magnetic Resonance Spectra. Final Report.	Richard A. Ogg, Jr. Stanford Univ., Palo Alto, Calif.	1-55
*MIT-EBR-11	Report of the Chemical and Spectrographic Analysis of The Standard Samples of Zirconium Hydride, MIT (ZH-2) and Zirconium Metal MIT (ZM-3).	E. B. Read	6-25-51
*MITG-222Z	Wet Scrubbing of Western Phosphate Ores.	Edmund G. Brown Mass. Inst. of Tech., Mineral Eng. Lab. Watertown, Mass.	10-25-49
*MR-518	Colorimetric Determination of Small Amounts of Boron in Titanium Alloys.	M. Codell G. Norwitz Frankford Arsenal. Pitman-Dunn Lab., Philadelphia	8-52
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*MR-529	Colorimetric Determination of Small Amounts of Aluminum in Titanium Alloys.	M. Codell G. Norwitz Same	
*MS-17	Separating Effect of Passage Through Capillary.	Gt. Brit.	
*MS-39	Chisias Dickel Device as Gland.	Gt. Brit.	1942
*MS-51	Membrane Pair With Supports.	Gt. Brit.	
*MX-228	The Determination of Microgram Amounts of Boron in Calcium and Magnesium Metals	H. A. Bewick F. E. Beamish J. C. Bartlet Atomic Energy Pro. (Canada)	2-20-46
*NACA-TN- 2838	Calorimetric Determination of Constant-Pressure Specific Heats of Carbon Dioxide at Elevated Pressures and Temperatures.	Virgil E. Schrock California Univ., Berkeley	1-31-52
*NBS-3345	Analysis by Mass Spectrometer of Polymers of $C_6F_4Br_2$ and $C_6F_4I_2$ .	Paul Bradt Fred L. Mohler	6-14-54
*NBS-3612	Heat Capacity, Heats of Fusion and Vaporization, and Vapor Pressure of Decaborane ( $B_{10}H_{14}$ ).	G. T. Furukawa Rita P. Park	7-25-54
*NBS-3649	Heat Capacity; Heats of Fusion, Transition, and Vaporization; and Vapor Pressure of Trimethylborane, $B(CH_3)_3$ .	G. T. Furukawa Rita P. Park	10-1-54
*NBS-3712	Heat Capacity, Heats of Fusion and Vaporization, and Vapor Pressure of Triethylborane, $(C_2H_5)_3B$ .	G. T. Furukawa	2-1-55
*NBS-3949	Thermal Conductivity and Heat Capacity Project. Progress Report No. 15 for November 7, 1954 to February 6, 1955.		2-55
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*NBS-4029	Development of Heat Resistant Polymers. Progress Report[for] January 1 to March 31, 1955.	L. A. Wall	4-15-55
*NBS-4068	Infrared Absorption Spectrum of Decaborane.	James E. Stewart	4-1-55
*NDRC-DI 110	The Electrical Conductivity of Silicon and Germanium.	F. Seitz Penna. Univ., Philadelphia	11-3-42
*NEPA-665	Solid Lubricants of the Metal Sulfide Type.	M. E. Lee Fairchild Engine and Airplane Corp., NEPA Div., Oak Ridge, Tenn.	7-12-48
*NEPA-672	Report of the Investigation of the Stability of $Be_2C$ in Moist and Dry Air.	C. G. Collins J. W. Sausville Same	7-22-48
*NEPA-878	Report on Hafnium Carbide.	M. A. Schwartz Same	1-25-49
ORNL-1909	Differential Spectrophotometric Determination of Beryllium	J. C. White A. S. Meyer, Jr. D. L. Manning	6-6-55
RMO-2046	Crystallization of Ammonium Alum	Gordon L. Dugger J. B. Adams Roger Bart	2-28-55
Y-1091	The Isotopic Assay of Lithium by Emission Spectroscopy	R. E. Sladky R. F. Fenske O. E. Schow, III	7-1-55

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*HE-150-86	Preliminary Studies of Nitrogen Glow Production For Use in the Glow Method of Flow Visualization.	R. A. Evans J. L. Olmstead Calif. Univ., Berkeley Inst. of Eng. Research	7-31-51
*HE-150-107	Flow Visualization Using Air Afterflow Excited by a Cross Stream 60 Cycle Discharge.	W. B. Kunkel Same	8-26-52
*JPL-Memo-20-88	A Study of the Mechanism of Boiling Heat Transfer	Max E. Ellion Calif. Inst. of Tech., Pasadena Jet Prop. Lab.	3-1-54
*NACA-RM-E54K10	Some Measurements of Boiling Burn-Out.	W. H. Lowdermilk W. F. Weiland Lewis Flight Prop. Lab., Cleveland	11-23-54
*NACA-TN-2783	Use of a Consolidated Medium for Measurement of Flow Rate and Viscosity of Gases at Elevated Pressures and Temperatures.	Martin B. Biles J. A. Putnam Calif. Univ., Berkeley	10-9-50
*NACA-TN-3045	Analogy Between Mass and Heat Transfer With Turbulent Flow.	Edmund E. Callaghan Lewis Flight Prop. Lab., Cleveland	8-12-53
*NACA-TN-3451	Analysis of Fully Developed Turbulent Heat Transfer and Flow in an Annulus with Various Eccentricities.	R. G. Deissler Maynard F. Taylor Same	3-16-55
*NAVORD-1572	On Turbulent Fluid Motion. (Aeroballistic Research Report No. 8).	Max M. Munk Nav. Ord. Lab., White Oak, Md.	11-9-50
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*NAVORD- 1837	On Some Two- and Three-Dimensional Problems in Heat Conduction.	Arnold N. Lowan Same	8-20-51
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GEOSCIENCES

*CEA-30	A New French Uraniferous Species: Renardite	G. Branche J. Chervet C. Guillemin France. Commissariat A L'Energie Atomique Paris	12-49
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*CEA-34	A New French Uraniferous Species: Parsonsite.	G. Branche J. Chervet C. Guillemin Same	12-49
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CEA-345	Geochimie Et Prospection Miniere	R. Le Caignec Same	1954
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*GS-C-111	Carnotite Deposits in the Carrizo Mountains Area, Navajo Indian Reservation, Apache County, Arizona, and San Juan County, New Mexico	W. L. Stokes Geological Survey	5-51
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*GS-C-189	Uranium Occurrences on Merry Widow Claim White Signal District Grant County, New Mexico.	Harry C. Granger Herman L. Bauer, Jr. Same	1952
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*GS-C-195	Radioactivity of Selected Rocks and Placer Concentrates From Northeastern Alaska.	Max G. White Same	1952
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*GS-C-207	Reconnaissance for Radioactive Deposits in the Southern Cook Inlet Region, Alaska, 1949.	R. M. Moxham Arthur E. Nelson Same	1952
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*GS-C-196	Preliminary Summary of Reconnaissance for Uranium in Alaska, 1951.	M. G. White W. S. West G. E. Tolbert, et al.	1952
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*GS-C-212	Uranium-Bearing Coal and Carbonaceous Rocks in the Fall Creek Area, Bonneville County, Idaho.	James D. Vine George W. Moore Same	1952
*GS-C-244	Reconnaissance for Radioactive Deposits in the Vicinity of Teller and Cape Nome Seward Peninsula Alaska, 1946-47.	M. G. White W. S. West J. Matzko Same	
*GS-C-248	Preliminary Summary of Reconnaissance for Uranium and Thorium in Alaska, 1952.	Helmuth Wedow, Jr. et al. Same	1953
*GS-C-260	Stratigraphic Sections of the Phosphoria Formation in Montana, 1948.	M. R. Klepper F. S. Honkala O. A. Payne E. T. Ruppel Same	1953
*GS-C-279	Reconnaissance for Radioactive Deposits in the Ruby-Poorman and Nixon Fork Districts, Westcentral Alaska, 1949.	Max G. White John M. Stevens Same	1953
*GS-C-281	Bibliography of U. S. Geological Survey Trace Elements and Related Reports.	Diane Curtis Shirley S. Houser Same	1953
*GS-C-294	Results of Reconnaissance for Radioactive Minerals In Parts of the Alma District, Park County, Colorado.	Charles T. Pierson Z. D. Singewald Same	1953
*MITG-255	Continuous Radioassay of Carnotite Ore At Monticello	R. J. Woody Donald W. Haney Mass. Inst. of Tech., Cambridge. Mineral Eng. Lab.	12-29-50

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*MITG-A71	Development of Counting Rate Meters for Continuous Radioassay.	Donald W. Haney Same Watertown, Mass.	4-25-50
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METALLURGY AND CERAMICS

BMI-980	Effect of Hydrogen on the Tensile Transition in Uranium	L. L. Marsh G. T. Muehlenkamp G. K. Manning	2-14-55
*BR-579	The Examination of a 12mm Extruded X-Metal Bar. Ref: Letter From E. W. Colbeck, 11.12.44	N. Allen Gt. Brit. Nat. Physical Lab., Teddington, Eng.	2-26-45
*BR-681	Corrosion of Columbium (Niobium) by Distilled Water.	Gt. Brit. Ministry of Supply	1949
*CAL-33	A Wire Resistance Strain Gage for the Measurement of Static Strains at Temperatures up to 1600 <sup>o</sup> F.	J. E. Carpenter L. D. Morris Cornell Aero., Lab., Inc., Buffalo	6-50
*CAR-202	Progress Report for June 1949. (Zn-Fe Couples Corrosion Study)	Carl Moore D. S. McKinney J. C. Warner Carnegie Inst. of Tech., Pittsburgh	7-49
CEA-333	Etude Du Recuit De L'Uranium Lamine	G. Cabane France. Commissariat A. L'Energie Atomique Paris	1954
CEA-352	Construction Et Application D'Un Porte-Echantillon A Double Balladage	J. Petit G. Carbane Same	1954
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*D-12245	Performance of SR-4 Strain Gages up to 450 <sup>o</sup> F.	Emmett E. Day Boeing Airplane Co., Seattle	10-9-51
*D-14839	Installation Procedure for Bonded Type Resistance Wire Strain Gages.	Same	1-25-54
*MAB-4-M	Boron Steels. First Report of Panel on Substitution of Alloying Elements in Engineering Steels.	Nat'l. Research Council. Metallur- gical Advisory Bd.	7-16-51
*MAB-7-M	Progress Report, April 28, 1951 to July 31, 1951.	Robert F. Mehl Same	
*MIT-1009	A High Temperature Precision X-Ray Camera. Some Measurements of the Thermal Coefficients of Expansion of Beryllium.	Paul Gordon	10-1-48
*MMAB-29-M	Third Report on Alternate Steels. Review of Material Specifications for the Bureau of Aeronautics Navy Aircraft Gun Turret. Aero-9B.	Nat'l. Research Council. Minerals and Metals Adv. Bd.	10-14-52
Monograph 2319	Motion of Individual Domain Walls in a Nickel-Iron Ferrite	J. K. Galt Bell Telephone Labs., Inc., N. Y.	9-54
Monograph 2374	Transition Structure in Lead-Silver Alloys and A Dislocation Mechanism	R. Heidenreich Same	1-55
*NACA-RM- E54D13	A Drop Test for the Evaluation of the Impact Strength of Cermets.	B. Pinkel G. C. Deutsch N. H. Katz Lewis Flight Prop. Lab., Cleveland	2-15-55

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*NACA-TN- 3216	Cooperative Investigation of Relationship Between Static and Fatigue Properties of Wrought N-155 Alloy at Elevated Temperatures.	Nat'l Adv. Comm. 6-15-53 for Aero. SubComm. on Heat-Resisting Mats.
*NACA-TN- 3333	Corrosion of Metals of Construction by Alternate Exposure to Liquid and Gaseous Fluorine.	Richard M. Gundzik 9-28-54 Charles E. Feiler Lewis Flight Prop Lab., Cleveland
*NAVORD- 2073	Phase Equilibria Studies; A New Method of Indexing Phase Reactions and Curie Points in Metals And Alloys.	Richard D. Potter 11-27-53 Nav. Ord. Test Sta., Inyokern (China Lake), Calif.
*NBS-3644	Thermal Expansion of Cermet Components by High Temperature X-Ray Diffraction. Progress Report No. 6 for the Period May 14, 1954, to August 14, 1954.	Floyd A. Mauer Leonard H. Bolz
*NEPA-303	Discussion of Possible Fabrication Techniques and Densities Obtainable in Suggested Shielding Materials.	Robert W. Goyle 10-31-47 Fairchild Eng. and Airplane Corp., NEPA Div., Oak Ridge, Tenn.
*NEPA-320	The Physical Properties of Beryllium-Aluminum Alloys.	Robert C. Anderson Same
*NEPA-552	The Development of Thermocouples; Report Memorandum No. 3, February 18 Through March 19, 1948.	R. M. Curcio 3-23-48 Walter C. Troy Ill. Inst. of Tech., Chicago. Armour Research Foundation
*NEPA-553	The Development of High Temperature Thermocouples; Report Memorandum No. 4, March 20 - April 19, 1948.	Gary Steven 4-23-48 R. M. Curcio Walter Troy Same
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*NEPA-729	The Development of High Temperature Thermo-couples; Report Memorandum No. 8; July 9 - August 19, 1948.	Gary Steven R. M. Curcio Walter C. Troy Same	8-19-48
*NEPA-816	The Heat Capacity of Beryllium Carbide Powder.	J. B. Trice J. J. Neely C. E. Teeter, Jr. Fairchild Engine and Airplant Corp., NEPA Div., Oak Ridge, Tenn.	11-10-48
*NEPA-821	The Heat Capacity of a Hot Pressed Beryllium Carbide Cylinder	J. B. Trice J. J. Neely C. E. Teeter, Jr. Same	11-12-48
NYO-7045	Thermodynamic Properties of Solid Aluminum - Silver Alloys Technical Report No. 20	Mats Hillert B. L. Averbach Morris Cohen MIT, Cambridge, Dept. of Metallurgy	5-31-55
NYO-7046	On the Ordered Structure Proposed for $\text{Li}_3\text{Mg}_5$ Technical Report No. 21	F. H. Herbstein B. L. Averbach Same	5-31-55
NYO-7047	Temperature-Diffuse Scattering for Powder Patterns From Cubic Crystals Technical Report No. 22	F. H. Hertstein B. L. Averbach Same	6-24-55
RAE-TN-MET 192	Corrosion of Stainless Steel and Aluminum Alloys in Contact with Titanium Technical Note No. MET, 192	C. Braithwaite Gt. Brit. Royal Aircraft Estblmt. Farnborough, Hants, England	2-54
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SO-2040	Thermodynamics of Liquid Ag-Au and Au-Cu Alloys and The Question of Strain Energy in Solid Solutions	R. A. Oriani	7-55
TAM-85	Fatigue Life as Influenced by Short Periods of Overstress	G. M. Sinclair H. T. Corten Illinois Univ., Urbana, Ill.	6-55
TAM-86	Bubble Raft Model of Crystal Fatigue	G. M. Sinclair H. T. Corten Same	6-55
TAM-89	An Investigation of the Behavior of Materials Under Repeated Stress	T. J. Dolan Same	6-55
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AD-47136	Large Signal Theory of the Traveling-Wave Tube (Including the Effects of Loss, Space Charge, and Finite "C")	Howard C. Poulter Stanford Univ., Palo Alto, Calif. Electronics Research Lab.	1-28-54
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*BR-554	A Note on the Homogeneous Ionisation Chamber Method for the Determination of Neutron Fluxes in the Presence of Gamma Rays.	D. H. Wilkinson Cambridge Univ., England	1-10-45
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*IM-3	Technical Manual of Battery Geiger Probe Monitor MK 1.	N. F. Moody Nat'l Research Chalk River Lab.	9-48
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*MS-77	Light Absorption by Two Black Hemispheres.	O. R. Frisch R. Peierls	
*MS-88	Note on the Compression at the Diffuser Entry in Compressor I. Z. I.	F. G. Friedlander Cambridge Univ., England	
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ASTIA-U-84	Title Announcement Bulletin No. U-84	Armed Serv. Tech. Info. Agency, Dayton Ohio	6-20-55
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CEA-299	Exemples D'Applications Industrielles De La Radioactivite	J. Gueron Same	1954
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UR-377	An Improved Aerosol Generator	K. E. Lauterbach A. D. Hayes M. A. Coelho	7-12-55

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UCRL-1484 Rev.	36-Inch Cyclotron Phase Servo Control System	Bob H. Smith	3-55
UCRL-2983	Prediction of Concentration Gradients in Multicomponent Mass Transfer (Thesis)	Albert F. Lane, Jr.	5-55
UCRL-3012	The Mechanism of the Reaction $O^{16} + p \rightarrow p + 4\alpha$ at 29 Mev (Thesis)	Oscar C. Kolar	5-5-55
UCRL-3014	Physics Division Quarterly Report February, March, April 1955		5-25-55
UCRL-3015	The Metabolism of Injected Egg Lipoprotein in the Normal and Irradiated Rabbit	Thomas L. Hayes John E. Hewitt	5-26-55
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UCRL-3046	The Alpha Track Counter (Thesis)	Archie B. Treadwell	6-55
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UCRL-3048 Abstract	Elastic Proton-Proton Scattering in the Bev Range	Bruce Cork W. A. Wenzel	6-15-55
UCRL-3054	Observation of Chemical Shifts of O <sup>17</sup> Nuclei in Various Chemical Environment	H. E. Weaver B. M. Tolbert R. C. LaForce	6-55
UCRL-3074	Isotopic Spin Conservation in K <sup>-</sup> Interactions with Nuclear Matter	S. Gasiorowics	7-14-55
UCRL-3076	Synthesis of New Elements	Bernard G. Harvey	7-15-55
UCRL-3080	List of Unclassified Reports Received and Issued in the UCRL Information Division During the Period of July 1-15, 1955		7-21-55
UCRL-3083	Mass Values of the K-Mesons	R. W. Birge J. R. Peterson D. H. Stork M. N. Whitehead	7-19-55