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Radiation Laboratory

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**LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED IN THE UCRL
INFORMATION DIVISION DURING THE PERIOD OF MAY 16-31, 1954**

June 5, 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 MAY 16-31, 1954

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

June 5, 1954

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BIOSCIENCES			
AECU-2821	Air Contamination and Respiratory Protection in Radioisotope Work	G. Morgan C. Buchanan, Adv. Field Ser. Branch Isotopes Div. OR Oper. Office	1/19/53
ANL-5247	Quarterly Report of Biological and Medical Research Division April 1954	A. Bruner	
KAPL-1088	Collection Efficiency of Air-Cleaning and Air-Sampling Filter Media	J. Fitzgerald C. Detwiler	3/15/54
*NBS-2224	Gamma Radiation in Air Due to Cloud or Ground Contamination	M. Berger J. Doggett	6/1/53
NM-000-018.04.12	The Effect of a Chelating Agent on Myosin Atpase	E. Friess	1/6/54
NM-005-048.04 Memo 53-22	Results of a Rectal Swab Culture Survey Among Naval Personnel Without Previous Sea Duty	C. Miller L. Barnes, et al	11/27/53
*NP-4026	Behavioral Changes Following Radiation. II. Material Behavior and Maze Performance	C. Downing P. Wall M. Balmuth, USAF Sch. of Aviation Med. Randolph Field, Texas	1952
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- *NP-4064 Radiological Safety Regulations (Revised 1951) Dept. of Navy
- *NP-4076 The Use of Small Laboratory Animals in Medical Radiation F. Ellinger 5/15/52
Biology. Part II. Correlation of Physical Factors with the J. Morgan
Biological Effect Produced in Total Body Irradiation F. Chambers, Jr.,
Naval Med. Res. Inst.,
Bethesda, Maryland
- *NP-4120 The Use of Small Laboratory Animals in Medical Radiation F. Ellinger, et al 4/30/52
Biology. PART I. Application of a 200 K. V. P. X-Ray Naval Med Res. Inst.,
Therapy Unit to Lethal Dose Studies Bethesda, Maryland
- *NP-4124 Cell Division in the Giant Amoeba *Pelomyxa Carolinensis*, E. Daniels, 9/52
Following X-Irradiation. A. Therapeutic Effects After Air Force Rad.
Fusion with Either Ninirradiated Light or Heavy Halves of Lab., U. of Chicago
Centrifuged Amoebai Immediately Following Exposure
- *NP-4269 Biological and Medical Aspects of Ionizing Radiation: VI. R. Feinstein 12/52
Carboxypeptidase in Mammalian Tissue J. Ballin, Air Force
Rad. Lab., U. of
Chicago
- *NP-4270 The Biological and Medical Aspects of Ionizing Radiation: K. Dubois, 11/52
The Influence of Nitrogen Mustards on Citric Acid J. Deroin
Synthesis in Vivo K. Cochran, Air Force
Rad. Lab., U. of Chicago
- *NP-4278 The Biological and Medical Aspects of Ionizing Radiation: H. Gerstner, 10/52
III. The Immediate Effect of X-Radiation on the Isolated C. Powell
Striated Frog Muscle E. Richey, Sch. of
Aviation Med.
- *NP-4279 The Antibody Response of Animals Exposed to X-Radiation J. Fulton 12/52
IV. The Levels of X-Radiation Exposure Required to R. Mitchell, Sch. of
Destroy an Immunity to Salmonella Typhimurium Aviation Med.

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*NP-4641	Non-Electronic Dose Rate Indicating Systems; Fourth Quarterly Progress Report for March 15 - June 15, 1953	H. Linschitz, Inst. of Ind. Res., Syracuse U.	
UCLA-291	The Plasma Lipids in Fat Deficiency	J. Mead D. Fillerup	5/10/54
UCLA-292	Determination of Triose Phosphates: Identification of the Triose Chromogen and Proposed Modifications in the Aldolase Method of Sibley and Lehninger	W. Beck	5/13/54
UCLA-293	Strontium and Calcium in Municipal Water Supplies, Their Occurrence and Removal	G. Alexander R. Nusbaum N. MacDonald	5/20/54
UR-298	An Evaluation of the Pulmonary Radiation Dosage from Radon and Its Daughter Products	J. Shapiro	4/9/54
UR-329	The Effects of a Maintained Body Burden of Polonium in Rats I. Pilot Distribution and Excretion Experiment	J. Stannard	4/27/54
*USNRDL-356	Performance Studies on Animals Subjected to Ionizing Radiation. (Semiannual Progress Report for the Medical Department of the U. S. A. F.) June 30, 1951 to June 30, 1952	Nav. Med. Radiological Defense Lab.	7/15/52

CHEMISTRY

*AD-11325	The Thermodynamic Properties of the Gaseous Carbon Monoxide	J. Belzer L. Savedoff, et al Cryogenic Lab., Ohio State U.	5/1/53
ANL-5243	Preparation of Methyl Borate from Boron Trifluoride	R. Barnes H. Diamond P. Fields	3/54

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*EAH-119	Feasibility Report Covering the Electrolytic Cell for Hanford	K. Greenhalgh J. Palm, Schenectady	10/49
KAPL-1086	The Absorption of Tritium Beta-Particles in Hydrogen and Other Gases	L. Dorfman	3/11/54
*MEMO-WHH-2	Two Liquid Phases in the Lithium-Ethylamine System at 0° C.	W. Howland L. Epstein, Knolls	12/16/52
*MITG-A-70	New Fluorimeters for the Determination of Uranium: MIT Models I, II, III, and IV.	D. Kaufman M. Castillo U. Koskela	7/1/50
Monograph-2172	Chemical Effects Due to the Ionization of Impurities in Semiconductors	H. Reiss	7/53
*MR-549	Colorimetric Determination of Chromium in Titanium Alloys	C. Norwitz M. Codell, Pitman-Dunn Labs., Frankford Arsenal	5/53
*NBS-5A-172	Thermal Degradation of Perfluoro- and Hydrofluoro-Ethylene Polymer in a Vacuum. Progress Report	S. Madorsky V. Hart, et al	6/15/53
*NBS-2183	Thermal Properties of Fluorine Compounds: Heat Capacity, Entropy, Heat Content and Free Energy Function of Sodium Monofluoride in the Ideal Gaseous State	L. Haar C. Beckett	6/1/53
*NBS-2185	Thermal Properties of Fluorine Compounds: Heat Capacity, Entropy, Heat Content and Free Energy Functions of Silicon Monofluoride in the Ideal Gaseous State	L. Haar C. Beckett	6/1/53
*NBS-2186	Thermal Properties of Fluorine Compounds: Heat Capacity, Entropy, Heat Content and Free Energy Functions of Hydrogen Fluoride in the Ideal Gaseous State	L. Haar C. Beckett	6/1/53
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- *NBS-2535 Compressibility, Density, Enthalpy, Entropy, Free Energy, Specific Heat, Viscosity, and Thermal Conductivity of Steam L. Fano 6/1/53
J. Hübbell
C. Beckett
- *NP-4067 Emploi de L'UX₁ Comme Radiotraceur Dans le Dosage du Thorium. (Use of UX₁ (Th²³⁴) as a Radiotracer in the Determination of Thorium) H. von Buttlar 7/52
N. Isaac, Centre de Physique Nucleaire de L'Universite Libre de Bruxelles
- *NP-4336 The Conversion of Ortho-Parahydrogen by Cuprous Acetate in Quinoline W. Wilmarth
M. Barsh, U. of Southern California
- *NP-4714 Analyse Spectrographique du Thorium et Preparation d'Oxyde de Thorium Nucleairement Pur. R. Cypres, Centre de 6/53
Physique Nucleaire de L'Universite Libre de Bruxelles
- *NP-5099 Development and Evaluation of High Temperature Greases: Quarterly Report No. 11 E. Swakon 1/54
R. Steinbruch, Standard Oil Co. of Ind.
- *NP-5113 Lower Oxidation States in Liquid Ammonia. Final Report for February 1, 1951 to January 31, 1954 H. Laitinen,
Illinois U.
- *NP-5118 The Preparation of Fluorine-Containing Compounds Technical Report No. 1 (for) March 31, 1953 through March 31, 1954 R. Dresdner, 1954
U. of Florida
- *NP-5122 Development of an Instrument for the Instantaneous Analysis of Gas Mixtures. Quarterly Progress Report No. 6 for April 1, 1953 to June 30, 1953 U. of Arkansas 1953
- *WADC-TR-52-22 Low Temperature Lubricating Oil Additives G. Gavlin 9/52
S. Jones, Jr.
E. Swire, Armour Res. Found.

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*WADC-TR-53-45	Synthetic Lubricants. (Final Report)	D. McCready, U. of Mich.	6/53
*WADC-TR-53-201 (Pt. 2)	Thermal Conductivity and Heat Capacity of Molten Materials. Part 2. The Heat Capacity of Anhydrous Sodium Hydroxide from 0° to 700° C.	T. Douglas J. Dever, Nat'l Bur. of Standards	8/53
*WADC-TR-53-337	Polynuclear Aromatic Compounds for High Temperature Lubricants. Final Report for Period from August 1, 1952 to July 31, 1953	C. Raley, Jr., Southwest Res. Inst.	9/53
*WIS-ONR-3	The Intermolecular Potentials of Helium and Hydrogen and a Table of Force Constants for Some Simple Non Polar Molecules	E. Mason W. Rice, Nav. Res. Lab., U. of Wis.	7/19/53
Y-B4-26	Chemical, Physical, and Solvent Properties of Tributyl Phosphate	F. Sachs	1951

ENGINEERING

ANL-5178	Local Boiling Pressure Drop	J. Reynolds	3/54
*EAH-125	Progress Report No. 24; Dec. 1-31, 1949	Gen. Eng. and Consulting Lab.	12/30/49
*EES-C-3134	Report of Test Concerning the Suitability of Welded 18 Cr - 8 Ni vs. 4-6%Cr Steam Piping for Use at 1100° F. at 680 P. S. I.	W. Leggett, Jr., Nav. Eng. Exp. Sta. Anapolis	3/16/48
*EES-C-3134-B	Report of Test Concerning the Suitability of Welded 18%Cr - 8%Ni vs. 4-6%Cr Steam Piping for Use at 1100° F. and 680 P. S. I.	W. Leggett, Jr.	5/19/48
*FM-1758	Theoretical Considerations on Free Convection in Tubes	M. Lighthill, Fluid Motion Sub-Comm. Aeronautical Res. Council, Gt. Britain	7/21/52
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*IG-800-S-8	Development of A High Temperature Strain Gage. Bimonthly Progress Report No. 8	H. Wolko J. Carpenter, Cornell Aeronautical Lab., Inc.	6/1/53
*IG-800-S-9	Development of a High Temperature Strain Gage. Bimonthly Progress Report No. 9 for May 1, 1953 - June 30, 1953	Cornell Aero- nautical Lab., Inc.	
LRL-128	Economics of Central - Station Power Plants Preliminary Compilation of Reference Data	R. Barham R. Gerber, et al	5/54
Monograph-2184	Polyethylene Insulated Telephone Cable	A. Windeler	9/53
*NACA-RM-E53GO3	Effective Thermal Conductivities of Magnesium Oxide, Stainless Steel, and Uranium Oxide Powders in Various Gases	C. Eian R. Deissler, Lewis Flight Prop. Lab.	10/29/53
*NACA-TN-2988	Temperatures, Thermal Stress, and Shock in Heat-Generating Plates of Constant Conductivity and of Conductivity that Varies Linearly with Temperature	S. V. Manson, Lewis Flight Prop. Lab.	7/53
*NP-3726	Design of Protective Structures (A New Concept of Structural Behavior)	A. Amirikian, Bur. of Yards and Docks	8/50
*NP-4010	Heat Transfer to Mercury	D. Bailey W. Cope G. Watson, Mech. Eng. Res. Lab., East Kilbridge, Glasgow, Scotland	7/52
*NP-4112	Technical Report No. 4 (on) Local Boiling Heat Transfer to Water at Low Reynolds Numbers and High Pressures	J. Clark W. Rohsenow, MIT	7/1/52
*NP-4129	Theory of Heat and Mass Transfer from a Slowly Moving SP Sphere to the Surrounding Medium	L. Breiman, CIT	9/20/52
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*NP-4218	Boiling Heat Transfer Project Monthly Progress Report	G. Henry W. Raymond J. Walsh, MIT	11/1/52
*NP-4230	Boiling Heat Transfer Project: Monthly Progress Report	G. Henry, et al MIT	12/1/52
*NP-5060	Principles Governing the Construction of Shielded Rooms. Interim Report	E. Jones, Stanford Res. Inst.	5/12/51
*NP-5063	Boiling Heat Transfer Project. Progress Report for December 1953	J. Walsh, MIT	1/1/54
ORNL-1701	Forced Convection Heat Transfer Between Parallel Plates and in Annuli With Volume Heat Sources Within the Fluids	H. Poppendiek L. Palmer	5/21/54

GEOSCIENCES

NBS-3289	Fluorine Substitution in Hydrous Silicates and Related Minerals March 1954	A. Van Valken- burg G. Rynders	
*NP-4080	The Use of Geiger-Mueller Tubes for the Determination of the State of Equilibrium of the Radioelements in Uranium Ores	C. Lapointe, Dept. of Mines and Tech. Surveys, Canada	8/6/52
*NP-4104	Application de La Methode du RaD a La Mesure de L'Age "Chimique" d'Un Mineral d'Uranium. (Application of the RaD Method to the Measurement of the Chemical Age of a Uranium Mineral)	F. Begemann H. von Buttlar F. Houtermans, Centre de Physique Nucleaire de L'Universite Libre de Bruxelles	8/52
*NP-5083	A Mill Feed Monotor for Radioactive Ores	A. Bettens C. Lapointe, Dept. of Mines and Tech. Surveys, Mines Branch, Canada	1/4/54
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TEI-347A	Radioactivity of Coal and Associated Rock in the Coal Fields of Eastern Kentucky and Southern West Virginia	S. Welch, Geological Survey Dept. of Int.	6/53
TEI-390	Geologic Investigations of Radioactive Deposits - Semiannual Progress Report, June 1 to November 30, 1953		12/53
Y-571	Studies of Recovery Processes for Western Uranium-Bearing Ores Part VIII	R. Lowrie K. Brown	1950
METALLURGY AND CERAMICS			
*AD-369	Research on Vibratory Compacting of Metal and Ceramic Powders. Second Quarterly Report, July 20, 1952 - October 20, 1952	W. Bell, N. Carolina State Coll.	
*AD-1932	Rates of Martensite-Type Reactions Using Fast Amplifier Techniques. Summary Report for Period July 1, 1952 to December 31, 1952	R. Bunshah E. Lahteenkorva R. Mehl, Metals Res. Lab., CIT	12/31/52
*AD-11576	Alloys for High-Temperature Service. Final Report	R. Beck E. Fletcher, et al, Battelle	5/30/52
COO-190	Phase Diagrams of Zirconium-Base Binary Alloys April 1, 1953 - March 31, 1954	Armour Res. Found. Ill. Inst. of Tech.	3/31/54
*EES-C-3395-B	Corrosion and Mechanical Properties of Titanium and Zirconium at Normal Temperatures	W. Williams, Nav. Eng. Exp. Sta., Anapolis	
*ES-11	Intergranular Corrosion of High Purity Aluminum in Distilled Water at 100° C and 150° C	M. Lavigne, Dept. of Mines and Canada	7/8/53

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KAPL-1081	The Preferred Orientation of Cold-Rolled Uranium Foil	W. Seymour	11/53
LRL-145	The Effect of Neutron Flux on the Mechanical Properties of Aluminum Alloys	R. Steele W. Wallace	5/54
Monograph-2189	Equilibrium Thermochemistry of Solid and Liquid Alloys of Germanium and of Silicon	C. Thurmond J. Struthers	11/53
Monograph-2210	Equilibrium Thermochemistry of Solid and Liquid Alloys of Germanium and of Silicon	C. Thurmond	11/53
*NBS-2106	Effects of Ceramic Coatings on the Creep Rate of Metallic Single Crystals. Progress Report No. 2 for September 15, 1952 to December 15, 1952		12/15/52
*NBS-2816	Electrodeposition of Titanium. (Quarterly Progress Report for July 1 - September 30, 1953)	J. Sherfey A. Brenner	10/1/53
*NBS-2861	Electrodeposition of Titanium. (Quarterly Progress Report for July 1 - September 30, 1953)	W. Reid J. Bish A. Brenner	10/1/53
*NEPA-1509	Coating for the Protection of Ceramic Bodies. Final Summary Report	F. McRitchie, Res. Found., Ohio State U.	6/15/50
*NEPA-IC-50-11-36	Preliminary Investigation Concerning the Fabrication of Tungsten Shapes at Intermediate Temperatures	F. Lampson H. Stephan, Fairchild Eng. and Airplane Corp.	10/10/50
*NEPA-IC-51-3-20	Selected Properties of Wrought Aluminum Sheet	H. Dorfman, Fairchild Eng. and Airplane Corp.	2/20/51
*NP-4008	A Hydraulically Operated Laboratory Furnace, with Resistance Thermometer Temperature Control: Tech. Report	H. Sephton, N. Y. State Coll. of Ceramics, Alfred U.	6/15/52
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*NP-4009	High Temperature Resistance Thermometer Temperature Controller	W. Crandall P. Hackett, N. Y. State Coll. of Cer., Alfred U., and Niagara Electron Labs.	6/15/52
*NP-4127	Preyield Plastic and Anelastic Microstrain in Low-Carbon Steel; Sixth Technical Report	T. Vreeland, Jr. D. Wood D. Clark, Cal. Tech.	9/52
*NP-4135	Evaluation Techniques for High Temperatures Metal-Ceramic Materials	W. Crandall M. Tuttle, N. Y. State Coll. of Cer., Alfred U.	9/15/52
*NP-4138	Effect of Dispersions of CuAl_2 on the Elevated Temperature Tensile Properties of Al-Cu ² Alloys; Twentieth Technical Report	C. Starr R. Shaw J. Dorn, U. of Cal.	1952
*NP-4180	Interim Technical Report No. 2 (on) the Quench Hardening of Titanium-Manganese Alloys	Y. Liu H. Margolin, N. Y. U.	6/25/52
*NP-4187	Progress Report No. 1 (on) the Effect of Dissolved Elements on the Rate of Isothermal Grain Growth in Metals	Ill. Inst. of Tech.	10/15/52
*NP-4198	Final Technical Report on Surface Hardening of Titanium by Carburizing and Induction Heat Treating, Covering the Period August 1, 1951 to August 31, 1952	A. Griest P. Moorhead, et al Battelle	8/31/52
*NP-4216	Contractor's Technical Report No. 1 (on) Order-Disorder Transformations in Metallic Alloys for the Period Oct. 17, 1952 to Nov. 17, 1952	G. Kuczynski, Notre Dame U.	11/17/52
*NP-4231	Mechanical Anisotropy in Some Ductile Metals	W. Backofen G. Hundy, MIT	
*NP-4236	Second Quarterly Report (of) Army Ordnance Research Project at Vanderbilt Univ. (on) Iron-Vanadium-Titanium System	W. Fishel, Vanderbilt U.	4/1/52
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- *NP-4237 Final Report (on) Basic Research in the Gamma Iron Region of the System Fe-Ti-V and Fe-Ti-V-C Covering Period from June 28 to September 28 W. Fishel, Vanderbilt U. 9/28/52
- *NP-4238 Third Quarterly Report (of) Army Ordnance Research Project at Vanderbilt University of Iron-Vanadium-Titanium System Vanderbilt U.
- *NP-4313 Final Report on the Quench Hardening of Titanium-Manganese Alloys Y. Liu, H. Margolin, N. Y. U. 9/15/52
- *NP-4868 A Fundamental Study in the Principles Covering Seizing and Galling in Metals. Quarterly Progress Report for February 6, 1953 to May 6, 1953 E. Machlin, W. Yankee, Columbia Univ. Sch. of Mines
- *NP-5096 Development of Procedures for the Identification of Minor Phases in Heat-Resistant Alloys by Electron Diffraction. Annual Summary Report for January 15, 1952 to January 15, 1953 L. Brockway, W. Bigelow, Eng. Res. Inst. U. of Mich. 5/53
- *NP-5097 Development of Procedures for the Identification of Minor Phases in Heat-Resistant Alloys by Electron Diffraction. Progress Report No. 5 for the Period January 15 to April 15, 1953 L. Brockway, W. Bigelow, U. of Mich.
- *NP-5098 Development of Procedures for the Identification of Minor Phases in Heat-Resistant Alloys by Electron Diffraction. Progress Report No. 7 for the Period July 15 to October 15, 1953 L. Brockway, W. Bigelow
- NP-5119 Some Fundamental Experiments on High Temperature Creep J. Dorn, U. C. 4/1/54
- NP-5146 An Investigation of the Kinetics of the Bainite Reaction in Alloy Steels Summary Report No. I Characteristics and Stabilization of the Bainite Reaction R. Hehemann, A. Troiano, Case Inst. of Tech. 2/54

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NP-5147	Activation Energies for Creep of Cadmium, Indium and Tin	R. Frenkel O. Sherby J. Dorn, U. C.	4/15/54
NYO-6294	Study of Metal-Ceramic Interactions at Elevated Temperatures - Quarterly Progress Report for the Period Ending April 1, 1954	F. Norton W. Kingery, MIT	4/1/54
*WADC-TR-52-99	Research Investigation of Protective Coatings for Magnesium	H. Childers K. Niles, et al, Northrop Aircraft, Inc.	
*WADC-TR-52-322 (Pt. 1)	Causes of Cracking in High-Strength Weld Metals	A. Williams A. Jacobs, et al Battelle	11/52
*WADC-TR-53-164	Exploratory Study of Nickel-Magnesia Cermets	E. Montgomery P. Rempes, Jr., Res. Found., Ohio State U.	4/53
*WADC-TR-109 (Pt. 1)	The Tentative Titanium-Silver Binary System	H. Adenstedt W. Freeman, Jr. Materials Lab., Wright Air Dev. Center	4/53
*WAL-401/51-22	Study and Research of the Siliconizing of Titanium. Final Report for Period July 1, 1952 through May 31, 1953	S. Kluz R. Wehrmann C. Kalinowski, Fansteel Metallurgical Corp.	
*WAL-401/85-24	Titanium Phase Diagram Study. Interim Technical Report No. 2	N. Y. U. Coll. of Engineering	
*WAL-401/84-25	Surface Hardening of Titanium with Metalloid Elements. Final Technical Report, June 1, 1952 to May 31, 1953	R. Hanzel V. Pulsifer S. McGee, Armour Res. Found.	

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* WAL-401/147-13	Beta Plasticity in Titanium-Base Alloys. Interim Technical Report No. 1	P. Albert I. Cadoff, N. Y. U.	7/31/53
* WAL-401/148-14	Research on the Effect of Plastic Deformation on Transformation in Titanium Alloys. Final Technical Report	Columbia U.	8/53
* WAL-401/191	Heat Treatment and Alloying of Titanium	L. Jaffe, Watertown Arsenal Lab.	6/23/53
* WAPD-EM-159	An Investigation of Type 347 Stainless Steel to Withstand Stresses Caused by Thermal Cycling	D. D. Frederick	1/31/52
* YE51-0443	The Mechanism of Plastic Flow in Titanium, Third Quarterly Progress Report (Covering Period) May 1, 1951 to August 1, 1951	C. Dube F. Rose, et al, Sylvania Elec. Prod., Inc.	10/26/51

PHYSICS

* AD-3487	Semiannual Report, June 30, 1952 - January 31, 1953. (Measurements of Inelastic Scattering and Total Neutron Cross Sections)	W. Swann, Bartol Res. Found., Franklin Inst.	1/31/53
* AD-14317	Diffraction Theory. A Critique of Some Recent Developments	C. Bouwkamp, Wash. Sq. Coll. of Arts and Sciences, N. Y. C.	5/53
AECU-2447	Nucleon Configurations from Nuclear Quadrupole Moments	W. Holladay R. Sachs, U. of Wis.	
AFCRC Tech. Rpt. 54-2	A Wide-Band Square-Law Circuit Element	A. Soltes	1/54
* HW-28268	Distribution of Thermal Neutrons in Exponential and Sigma Piles	G. Duvall	6/3/53
IDO-16159	MTR Time-of-Flight Instrumentation	D. deBoisblanc K. McCollom, Phillips Pet. Co.	4/22/54
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ISC-439	Transmission of 0-50 Kilovolt Electrons by Thin Films with Applications to Beta-Ray Spectroscopy	R. Lane D. Zaffarano, Ames Lab.	12/53
KAPL-1072	Torus Analysis	R. Mathews G. Horvay	2/22/54
KAPL-1092	A Defocusing Effect Observed in X-Ray Spectrometry	W. Seymour	3/31/54
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