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UNIVERSITY OF CALIFORNIA

Lawrence Radiation Laboratory
Berkeley, California

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LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY THE UCRL INFORMATION DIVISION DURING THE PERIOD OF MARCH 16 - 31, 1959

April 3, 1959

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 MARCH 16 - 31, 1959

Lawrence Radiation Laboratory
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April 3, 1959

Index Number	Title	Author	Date
	BIOSCIENCES		
AD-19656	Biological and Medical Aspects of Ionizing Radiation. The Effect of Local Brain X-Irradiation on the Pinna Reflex of Guinea Pigs. Report No. 8.	H. B. Gerstner, E. B. Konecci, W. F. Taylor School of Aviation Medicine, Randolph AFB, Tex.	9-53
AD-29352	Circulatory and Respiratory Responses to Acute Hypoxia in Dogs Rendered Mildly Anemic by Hemorrhage	E. F. Beard A. L. L. Bell, Jr. T. W. Howell same	10-53
*AERE-HP/M-55	Atmospheric Diffusion from Elevated Sources Note on a Symposium Held at A.E.R.E. Harwell on November 26, 1952	F. Pasquill	8-53
AF-SAM-58-95	Comparative Study of Adrenal Function at Sea Level and at High Altitude. The Response of ACTH.	C. Subauste R. Aliaga C. Silva, et al. School of Aviation Medicine, Randolph AFB, Tex. and Institute of Andean Biology, Lima.	9-58

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AF-SAM-58-147	Novelty Learning Sets in Rhesus Monkeys.	W. L. Brown J. E. Overall H. C. Blodgett School of Aviation Medicine, Randolph AFB, Tex. and Texas, Univ., Austin.	11-58
AF-SAM-Review-7-58	The Role of the Altitude Chamber in the Diagnosis and Disposition of Problem Aeromedical Cases. Aeromedical Reviews.	C. A. Berry A. H. King School of Aviation Medicine, Randolph AFB, Tex.	11-58
AFSWC-TR-57-40	Evaluation of Portable Alpha Survey Instruments.	R. F. Merian J. B. O'Loughlin Air Force Special Weapons Center, Kirtland AFB, N. Mex.	12-57
CEA-816	On the Use of the Dark Ground Condenser for the Microphotographs of Biological Autoradiograms. Reprinted from International Journal of Applied Radiation and Isotopes 3, 13-14 (1958). (In French)	F. Ludwig France. Commissariat à l'Énergie Atomique, Paris.	1958
CEA-817	A Study of Hemolysis in Two Cases of Congenital Porphyria. Reprinted from Revue Française d'Études Cliniques et Biologiques 3, 27-32 (1958). (In French)	J. Canivet M. Pelnard-Considere France. Commissariat à l'Énergie Atomique, Paris.	1958
CEA-820	Preparation of Suspensions of Liver Cells and Separation of the Reticulo-Endothelial Cells from the Hepatocytes. Reprinted from Société de Biologie et de ses Filiales, Paris. Comptes Rendus des Seances 151, 892-7 (1957). (In French)	F. Chevallier France. Commissariat à l'Énergie Atomique, Paris.	1958
*CF-57-6-23	The Disposal of Power Reactor Waste into Deep Wells.	W. de Laguna J. O. Blomeke ORNL., Tenn.	6-13-57

*Microcard

CRCE-808 (AECL-718)	Initiation of a Field Burial Test of the Disposal of Fission Products Incorporated into Glass.	A. R. Bancroft J. D. Gamble Atomic Energy of Canada Ltd. (Chalk River, Ont.)	11-58
NP-7301	Quarterly Progress Report No. 30.	Chicago Univ., Air Force Radiation Lab.	1-59
NYO-2060	The Determination of Cardiac Output by the Dilution Method without Arterial Sampling. Part I. Analytical Concepts. And Part II. Validation of Precordial Recording.	W. J. MacIntyre W. H. Pritchard T. W. Moir Western Res. Univ., Cleveland. Atomic Energy Med. Res. Project	1-59
ONRL-8-59	Yugoslav Radiation Accident Victims Treated by Curie Hospital.	J. A. O'Donoghue Office of Naval Res., Wash., D.C.	3-59
UCLA-435	Effects of Essential-Fatty-Acid Deficiency and X-Irradiation on the Rat Plasma Cholesteryl Ester Spectrum.	S. Hashimoto D. R. Howton	3-59
UR-539	Studies on Large Area Sub-fabric Burns: The Effect of An Air Space Between a Two Layer System.	K. M. Berkley	3-59
UR-540	Autoradiographic Study of Lung Clearance and Distribution of Polonium-210 after Intratracheal Injection.	L. J. Casarett P. E. Morrow	2-59
*USNRDL-TR-137	The Relationship of Time of Peak Activity from Fallout to Time of Arrival.	P. B. LaRiviere	2-57
*USNRDL-TR-248	Characteristic Curves from Different Ionizing Radiations and Their Significance in Photographic Dosimetry.	R. Golden E. Tochilin	6-58
USNRDL-TR-265 (AFSWP-1081)	Reflectance Characteristics of Nevada Test Site Soils.	R. W. Hillendahl	5-58

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WADC-TN-58-58	A Simplified Air Sampling Method. [Period Covered] June 1957 to August 1957.	R. B. Thomas Wright Air Development Center, Materials Lab., Wright-Patterson AFB, Ohio	3-58
WADC TR-57-118 (Part I)	A Radiobiology Guide.	R. E. Barbiere R. F. Sweeton G. P. Sakalosky, et al. RCA Service Co., Inc., Camden, N. J.	6-58
WAPD-CTA(IH)-208	Pre-Operational Radiation Survey of the Shippingport Atomic Power Station Site and Surrounding Area.		1-58
WAPD-PWR-CP-1945	Waste Disposal Treatment of PWR Hot Laundry and Decontamination Room Wastes.	P. Cohen	3-56

CHEMISTRY

TC-tr-1700	Ultrafilters of Carborundium, by Jacques Duclaux and Miguel Amat. Trans. from Académie des Sciences, Paris. Comptes Rendus 205, 315-6 (1937).
AEC-tr-1757	Method Permitting the Determination of Extremely Small Quantities of Boron in Organic Matter, by Gabriel Bertrand and H. Agulhon. Trans. from Académie des Sciences, Paris. Comptes Rendus 157, 1433-6 (1913).
AEC-tr-1813	Concerning a New Variety of Uranium Hydride, by Roger Gaillat, Henri Coriou, and Pierre Perio. Trans. from Académie des Sciences, Paris. Comptes Rendus 237, 812-3 (1953).
AEC-tr-1839	The non-existence of isomerism in Bromine 82, by Andre Berthelot, Lily Papineau, and Christiane Herczeg. Trans. from Académie des Sciences, Paris. Comptes Rendus 232, 498-9 (1951).

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AEC tr-1841	Theory of the Beta Spectrograph, K. Siegbahn Type, by Genevieve Paquien and Pierre Grivet. Trans. from Académie des Sciences, Paris. Comptes Rendus 230, 196-8 (1950).
*AEC-TR-1907	Rapid Measurement of the Boric Acid which Occurs Normally or is Added to Food, by Gabriel Bertrand and H. Agulhon. Trans. from Académie des Sciences, Paris. Comptes Rendus 158, 201-4 (1914).
*AEC-tr-1910	The Action of Fluorine on Sodium Sulfate, Sulfite and Thiosulfite, by Marius Picon and Louis Domange. Trans. from Académie des Sciences, Paris. Comptes Rendus 236, 704-6 (1953).
*AEC-tr-1926	Influence of the Physical Chemical State of Uranium on its X Absorption Spectra, by Ioana Manescu. Trans. from Académie des Sciences, Paris. Comptes Rendus 225, 537-9 (1947).
*AEC-tr-2002 (AEC-tr-1497)	The Measurement of the Dissociation Pressure of Potassium Hydride by a Dynamic Method, by Albert Herold. Trans. from Académie des Sciences, Paris. Comptes Rendus 225, 249-50 (1947).
*AEC-tr-2003 (AEC-tr-1498)	Dissociation Pressures of the Alkali Hydrides, by Albert Herold. Trans. from Académie des Sciences, Paris. Comptes Rendus 228, 686-8 (1949).
*AEC-tr-2006 (CF-53-2-49	Influence of the Disappearance of Antiferromagnetism of Nickel Oxide on the Chemical Activity of this Oxide, by Georges Nury. Trans. from Académie des Sciences, Paris. Comptes Rendus 234, 946-8 (1952).

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*AEC-tr-2008	New Apparatus for the Microchemical Determination of Molecular Weights by Effusion, by W. Mund, J. A. Herman, and P. Huyskens. Trans. from Académie Royale de Belgique, Brussels. Classe des Sciences. Bulletin, Ser. 5, 38, 106-12 (1952).		
*AEC-tr-2023	Thermodynamics Activity and Miscibility Gap, by Maurice Rey. Trans. from Académie des Sciences, Paris. Comptes Rendus 228, 545-7 (1949).		
*AEC-tr-2024	Determination of the Thermodynamic Activity of Constituents of Molten Systems from the Solidification Diagrams by Maurice Rey. Trans. from Académie des Sciences, Paris. Comptes Rendus 228, 473-5 (1949).		
AEC-tr-3274	On the Velocity of Rise and Hydraulic Resistance of Gas Bubbles in Liquids, by B. K. Kozlov and M. A. Mologin. Trans. from Akademiia Nauk S.S.S.R. Otdelenie Tekhnicheskikh Nauk. Izvestiia 1951, 1188-97.		
*AEC-tr-3417	Radiolysis of Heptane and of Some Other Alkanes, by L. S. Polak, A. V. Topchiev, and N. Ia. Cherniak. Trans. from Akademiia Nauk S.S.S.R. Doklady 119, 308-9 (1958).		
*AEC-tr-3416	Spectrographic Study of Radiolysis of Hydrocarbons, by L. S. Polak, A. V. Topchiev, N. Ia. Cherniak, and I. Ia Kachkurova. Trans. from Akademiia Nauk S.S.S.R. Doklady 119, 118-20 (1958).		
*AEF-89	Nitrogen as a Wavelength Shifter in an Argon Gas Scintillation Counter.	R. Skjöldebrand Aktiebolaget Atomenergi, Stockholm.	6-57
AERE-C/M-345	The Production of Chemicals from Reactors. Part 2. Deposition of Energy by Fission Fragments in Two-Phase Systems.	G. Long	11-58
*AERE-CE/M-226	Performance of the Bepo Scrubber for Iodine Removal.	F. G. May J. B. Morris	5-58

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*AERE-ES/R-2412	Master-slave Manipulators. Improved Sealing Against Leakage from Cell, Handling and Servicing.	W. K. Curtis	10-57
*AERE-HP/M-93	Tests on Polyvinyl Chloride--Acetate Copolymer Coated Papers for Use as Bench Covering in Radioactivity Laboratories.	R. C. Chadwick	
AERE-HP/M-100	Calculation of Fission Product Activities in Irradiated Thorium and Uranium.	D. V. Booker	10-55
CEA-761	Influence of Some Decontaminating Agents on the Purification of Radioactive Waste Water. Reprinted from Énergie Nucléaire 1, 138-40 (1957). (In French)	J. Cantel P. Cohen France. Commissariat à l'Énergie Atomique, Paris.	1-58
CEA-764	The Plutonium Extraction Pilot Plant at Chatillon. (In French)	P. Faugeras P. Regnaut same	1958
CEA-765	Contribution to High Vacuum Differential Thermal Analysis Study of Uranium Alloys. (In French)	J. Bellot J. M. Henry G. Cabane Same	1-58
CEA-791	Preparation of Hexavalent Plutonium and its Determination in the Prescenmof Tetravalent Plutonium.	C. Ferradini J. Corpel Same	2-56
CEA-796	Bibliography on Plutonium and its Compounds. (In French)	J. Dirian J. Choquet Same	1-58
CEA-818	Adsorption Spectra between 0.8μ and 30μ of Mixtures of H_2O - D_2O in the Liquid State. Reprinted from Colloquium Spectroscopium Internationale. 6th, Amsterdam, 1956. London, Pergamon Press, 1956, p. 623-31.	M. Ceccaldi M. Goldman E. Roth Same	1958

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CEA-819	Use of Ion Exchange Resins for the Concentration and Purification of Plutonium. Reprinted from Énergie Nucléaire 1, 207-15 (1957). (In French)	I. Prévot P. Regnaut France. Commissariat à l'Energie Atomique, Paris	1958
CEA-822	Airtight Box for Manipulation in a Controlled Atmosphere. Reprinted from Industries Atomiques 1958, No. 1/2, 1-2. (In French)	M. Rapin Same	1958
*CF-57-3-73	Comments on the Determination of the Particle Size Distribution of Thorium Oxide.	G. E. Moore ORNL., Tenn.	3-57
*CF-57-6-87(Rev.)	Experiments on the Release of Fission Products from Molten Reactor Fuels.	G. W. Parker G. E. Creek Same	3-58
*CF-57-6-125 (Rev.)	A Preliminary Study of Pre-solvent Extraction Treatment of Stainless Steel-Uranium Fuels with Dilute Aqua Regia.	F. G. Kitts J. J. Perona Same	10-57
*CF-57-10-89	A Continuous Darex Process Flowsheet.	F. G. Kitts Same	10-57
*CF-58-1-26	The Crystal Structure of Rb_3UF_7.	L. A. Harris Same	1-58
*CF-58-2-135	Darex Process: Batch Dissolution and Chloride Removal Steps for Yankee Atomic Fuel.	J. H. Goode J. R. Flanary Same	2-58
*CF-58-3-8	Hydroclone Performance in the Solvent Recovery System of the Thorex Pilot Plant.	J. Cerny, III. Same	3-58
*CF-58-3-15	The Crystal Structures of 7:6 Type Compounds of Alkali Fluorides with Uranium Tetrafluoride.	L. A. Harris Same	3-58
CF-58-5-33	Aqueous Homogeneous Reactor Fuel Processing. The Behavior of Insoluble Corrosion and Fission Products. (To be presented at the American Chemical Society's Nuclear Technology Symposium, Boston, April 5-10, 1959.)	P. A. Haas Same	5-58

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CF-59-1-77	Reduction of Radioactive Waste to Solids for Ultimate Storage. (To be presented at the A.C.S. Convention, Boston, Massachusetts, April 6-10, 1959.)	C. W. Hancher ORNL., Tenn.	1-59
CF-59-1-151	Power Reactor Fuel Reprocessing: Mechanical Phase.	B. B. Klima Same	1-59
CRCE-716,(Pt.I)	Preparation of Uranium Dioxide for Use in Ceramic Fuels. Part I. Batch Precipitation of Ammonium Diuranate.	W. T. Bourns L. C. Watson Atomic Energy of Canada Ltd. Chalk River, Ont.	9-58
GAT-244	Chemical Reactions of Various Fluorine Systems.	G. Stern W. R. Brown	1-59
HR-59-419	The Relationship between Plastic Flow and the Fracture Mechanism in Magnesium Oxide Single Crystals. Fourth Technical Report.	R. J. Stokes T. L. Johnston C. H. Li Honeywell Research Center, Hopkins, Minn.	2-59
HW-58596	Trans-Plutonium Isotope Buildup by Neutron Irradiation of Plutonium	F. P. Brauer H. H. Burley	12-58
HW-59008	Ion Exchange. Spectrographic Determination of Arsenic and Phosphorus in River Water.	R. Ko	1-59
K-1292	A Sensitive Ratio Recorder for Mass Spectrometers.	W. G. Hart A. Langdon Oak Ridge Gaseous Diffusion Plant, Tenn.	3-59
K-1367	Recovery of Uranium Hexafluoride From Feed Plant Vent Gases.	C. C. Littlefield D. C. Brater J. H. Pashley Same	3-59

LA-2271	Compressibility Factors and Fugacity Coefficients Calculated from the Beattie-Bridgeman Equation of State for Hydrogen, Nitrogen, Oxygen, Carbon Dioxide, Ammonia, Methane, and Helium.	C. E. Holley, Jr. W. J. Worlton R. K. Zeigler	3-59
Monograph 3174	Some Experiments on the Motion of 180° Domain Walls in $BaTiO_3$. Reprinted from Physical Review 111, 736-9 (1958)	R. C. Miller Bell Telephone Labs., Inc., New York.	1-59
Monograph 3179	Factors Determining the Oxygen Content of Liquid Silicon at its Melting Point. Reprinted from Journal of Applied Physics 29, 1292-4 (1958).	W. Kaiser J. Breslin Same	1-59
Monograph 3183	Observation of Domains in the Ferrimagnetic Garnets by Transmitted Light. Reprinted from Journal of Applied Physics 29, 1286-91 (1958).	J. F. Dillon, Jr. Same	1-59
Monograph 3185	Ferroelectric Switching Time of $BaTiO_3$ Crystals at High Voltages. Reprinted from Journal of Applied Physics 29, 1485-7 (1958).	H. L. Stadler Same	1-59
Monograph 3186	Plasticized Poly (Vinyl Chloride) for Retractile Cords. Reprinted from Wire and Wire Products 33, 1214-7, 1263-5 (1958).	J. B. DeCoste J. B. Howard Victor T. Wallder, et. al. Same	2-59
NBS-6038	The Vapor Pressures of some Hydrocarbons in the Liquid and Solid State at Low Temperatures. Technical Memorandum No. 60.	W. T. Ziegler	2-59
NLCO-721	Electrolytic Oxidation of Chlorides in Nitric Acid	W. S. Miller E. R. Johnson R. L. Doyle	2-59
NLCO-751	Determination of Chloride in Uranium-Bearing Materials by a Potentiometric Titration Method.	P. G. Laux E. A. Brown	3-59

*NP-2247	The Use of Solid Caustic Alkalies for the Saponification of Esters, by E. Tassilly, A. Bellot, and M. Descombes. Trans. from Académie des Sciences, Paris. Comptes Rendus 186, 1846-8 (1928).		
ORNL-2662	Analytical Chemistry Division. Annual Progress Report for Period Ending December 31, 1958.		3-59
PR-CM-16	Chemistry and Metallurgy Division. Progress Report [for] October 1, to December 31, 1958.	Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	
*PRL-5.23	Fluids, Lubricants, Fuels and Related Materials. Quarterly Report for January, February, and March 1958.	Pennsylvania State Univ. University Park. Petroleum Refining Lab.	3-58
*PRL-5.24	Fluids, Lubricants, Fuels and Related Materials. Quarterly Report for April, May and June 1958.	Same	6-58
TID-3527	Hydroclones and Liquid Centrifuges. A Literature Search	J. M. Jacobs, Comp.	3-59
*WADC-TR-55-30 (Pt. 6)	Fluids, Lubricants, Fuels and Related Materials. [Period Covered] January through December 1957.	E. E. Klaus M. R. Fenske Pennsylvania State Univ., University Park. Petroleum Refining Lab.	2-58
*WADC-TR-56-207 (Pt. III)	"Chain Type" Polyphenyl and Polynuclear Aromatic Compounds as Base Materials for High Temperature Stable and Radiation Resistant Lubricants and Hydraulic Fluids. [Period Covered:] October 1956 to December 1957.	J. J. E. Schmidt J. A. Krimmel T. J. Farrell, Jr. Denver. Univ. Denver Research Inst.	
*WADC-TR-56-590 (Pt. II)	Photochemical Synthesis of Organic Fluorine Compounds. Period Covered: November 15, 1956 to September 14, 1957.	J. D. Park J. R. Lacher Colorado. Univ., Boulder	9-57

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*WADC-TR-57-255 (Pt. II)	Nuclear Radiation Resistant Turbine Engine Lubricants. Final Report [for] February 1, 1957 to March 31, 1958.	A. H. Matuszak Esso Research and Engineering Co., Linden, N. J.	4-58
*WADC-TR-57-627	Photo-Conductive Materials for Use in High Intensity Nuclear Radiation Measurements. Period Covered: June 1, 1956 to July 31, 1957.	R. J. Robinson L. V. Azaroff Illinois Inst. of Tech., Chicago. Armour Research Foundation.	11-57
*WADC-TR-58-187 (Pt. I)	Synthesis and Evaluation of High Temperature Stable and Nuclear Radiation Stable Metal-Cyclopentadienyl Fluids. Period Covered March 1957 to March 1958.	R. L. Schaaf K. L. Rinehart, Jr. Wyandotte Chemicals Corp., Wyandotte, Mich. and Illinois. Univ., Urbana	4-58
WADC-TR-58-206	Effects of High Energy, High Intensity Electromagnetic Radiation on Organic Liquids.	R. M. Wagner L. H. Towle Stanford Research Inst., (Menlo Park, Calif.)	10-58
*WAPD-CDA(AD)-339	Test Results of the Bettis High-Pressure Oxygen Analyzer.	J. M. Wright T. R. Druga	[1958]
*WAPD-CDA(AD)-383	Batch Treatment Procedure for Wastes Containing Chromate at Inhibitor Concentrations.	R. Lloyd	[195?]
*WAPD-CP-687	Stability of Boric Acid.	H. K. Lembersky	9-54
*WAPD-CTA-(GLA)-203	The Determination of Nitrogen In Niobium	G. W. Goward E. F. Tretow	4-56
*WAPD-CTA-(GLA)-431	The Determination of Uranium as an Impurity in Zirconium and Zircaloy.	D. L. Smith H. R. Wilson G. W. Goward	9-57
*WAPD-CTA-(GLA)-471	Tentative Method for the Determination of Niobium in High Purity Niobium Metal.	R. O. Backer G. W. Goward V. R. Wiederkehr	11-57

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*WAPD-CTA(GLA)-500	The Determination of Manganese as an Impurity in Niobium.	D. V. Reed G. W. Goward	12-57
*WAPD-CTA(GLA)-501	The Determination of Molybdenum as an Impurity in Niobium.	D. V. Reed	12-57
*WAPD-CTA(GLA)-506	The Determination of Copper as an Impurity in Niobium.	D. V. Reed	1-58
*WAPD-CTA(GLA)-511	The Determination of Iron as an Impurity in Niobium.	E. N. Brown D. V. Reed	1-58
*WAPD-CTA(GLA)-542	The Determination of Tantalum in Niobium.	M. L. Theodore	2-58
*WAPD-CTA(GLA)-620	The Determination of Molybdenum and Tungsten as Impurities in Niobium.	D. V. Reed H. R. Wilson G. W. Goward	7-58
*WAPD-P-699	A Method for Determination of Plutonium Production in Reactors.	W. Baer D. Klein N. Carbone	5-56
*WAPD-PWR-CP-2728	A New Instrumental Method for Measuring the Concentration of Dissolved Hydrogen in Water.	J. M. Wright D. J. Stiteler	[2-57]
*WAPD-T-670	Density Measurement Problems in Hot Cells.	K. Stratton	[1958?]
*WAPD-TM-136	Primary Coolant System Activities Due to a Burst Source of Fission Products.	P. W. Frank B. D. O'Reilly	5-58

ENGINEERING

*AED-BRD-1	Measuring Devices--Program. Nos. G.1-16 (In German)	Marburg, Germany. Universitat. Physikalisches Institut	1956-57

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*AED-BRD-2	Scintillation Measuring Devices. No. G 1. (In German)	Marburg, Germany Universitat. Physikalisches Institut.	1956
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*AED-BRD-5	Direct Current Voltage Stabilization Instrument (+300V) Stab. 1. No. G 6. (In German)	Same	1956
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*AED-BRD-8	High Voltage Rectifier --HG 1. No. G 14. (In German)	Same	1956
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AAA-SR-3377	Thermal Neutron Spectrum in Harmonically Bound Hydrogen Moderators.	E. R. Cohen E. U. Vaughan	1-59
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ORNL-2610	Physics Division Semiannual Progress Report for Period Ending September 20, 1958.		3-59

ORNL-2659	Resonance Absorption of Neutrons in Nuclear Reactors. (Thesis.)	L. Dresner	3-59
PRL-8-17	Spontaneously Growing Transverse Waves in a Plasma Due to an Anisotropic Velocity Distribution.	E. S. Weibel Ramo-Wooldridge Corp. Space Technology Labs., Los Angeles	
RIB-38	First Quarterly Report. The Construction of a Cascaded Image Converter for Nuclear Track Viewing. Period Covered: June 1, 1958 to November 1, 1958.	DuMont (Allen B.) Labs., Inc., Tube Research Labs., Passaic, N. J.	
*WADC-TR-56-623	Development of a Tritium Impregnated Metal for Use as the Activator in a Self-Luminous Phosphor and for Use as an Ionization Source. [Period Covered] May 15, 1955 to September 15, 1956.	D. L. Prosser C. H. Wright J. E. Atherton, et. al. United States Radium Corp., New York.	11-56
WADC-TR-58-80	A Monte Carlo Code for Gamma Ray Transmission through Laminated Slab Shields	R. A. Liedtke H. A. Steinberg Technical Research Group, New York	4-58
*WAPD-P-695	Analysis of DCTF Criticality and Reactivity Data.	E. M. Gelbard	12-55
*WAPD-PM-12	Slowing Down of Fission Neutrons in Hydrogenous Mixtures. Description of Muft-II Code.	R. L. Hellens B. H. Mount W. L. Long	3-55
*WAPD-T-545	A Method of Obtaining Axial Flux Distributions in a Rod-Programmed Core.	R. W. Devlin R. R. Thomson	6-57
*WAPD-T-588	Nucleate Boiling Detection Techniques.	K. Katz R. T. Esper W. E. Hopkins	1957
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*WAPD-T-824	Comments on the PDQ Code.	B. H. Mount	4-58
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*AEF-87	Gamma Escape Probability for Reflected Reactor Cores with Bessel Source Distribution.	R. P. Srivastav Aktiebolaget Atomenergi, Stockholm.	5-57
*AERE-C/R-1814	Fused Fluoride Fuel Systems for Homogeneous Reactors. Part IV. Estimates of Critical Size.	G. Long	11-55
*AERE-ED/R-1368	Temperature and Power Transients in the Fast Reactor During the Initial Stages of Divergence.	D. V. Wordsworth	2-54
APAE-43 (Vol. I)	APPR-1. Research and Development Program. Decontamination Program. Task II. Volume I. Contamination and Decontamination in Nuclear Power Reactors.	J. L. Zegger G. P. Pancer Alco Products, Inc., Schenectady, N. Y.	2-59
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*CF-52-8-226(Del)	A Preliminary Study of the Feasibility of a Gas-Cooled, Graphite-Moderated Reactor for Power Production. Reactor Design and Feasibility Problem.	D. B. Willmer J. H. Crowley Z. Levine, et. al. Same	
*CF-52-8-227 (Del.2)	Power from Na Cooled Reactor; Reactor Design and Feasibility Problem.	D. R. Bennion R. L. Hickmott N. A. Krohn Same	3-57
*CF-54-8-234	Summary of High Temperature Liquid Metal, Fused Salt Pump Development Work in the ORNL-ANP Project for the Period July 1950-January 1954.	E. S. Farris Same	11-57
*CF-54-8-241	Shielding for Nuclear Rockets.	J. E. Norman Same	11-57
*CF-56-8-206	High Flux Research Reactor (HFRR). Design and Feasibility Study.	R. D. Cheverton A. W. Charmatz R. L. Crowther, et. al. Same	8-56
*CF-57-5-31	Two Group Calculations for Flux Distribution and Critical Mass in Clean Cold Orr Cores.	F. T. Binford Same	3-58
*CF-57-8-6	An 80 Megawatt Aqueous Homogeneous Burner Reactor. Reactor Design and Feasibility Problem.	R. H. Chapman H. L. Collins W. J. Dollard, et. al. Same	8-57
*CF-57-8-10	Superheating Water-Boiler. Reactor Design and Feasibility Study.	F. Marbury J. W. Alden R. E. Bedford Same	8-57
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*CF-57-12-145	Survey of Processes for Control of Xe-135 Poisoning in HRE-3.	E. A. Mason Same	12-57
*CF-58-2-3	Development of a Fast-Release Electro-Magnet for Pool-Type Research Reactors.	C. Michelson Same	2-58
*CF-58-2-32	Estimate of the Ratio of Ta^{182} to Co^{60} Activity Expected in the APPR-1 Core.	E. E. Gross Same	2-58
*CF-58-2-46	A Molten Salt Natural Convection Reactor System.	F. E. Romie B. W. Kinyon Same	2-58
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*POC/Memo-77	The Operational Implications of Limited Reactivity Reduction Rates.	I. Wilson U.K.A.E.A. Research Group. Atomic Energy Research Establishment, Harwell, Berks, England	1-57
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*PRDC-TR-8	Monthly Technical Report: Report Period, February 1958.	Same	
*PRDC-TR-10	Monthly Technical Report [For] April 1958.	Same	
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*WAPD-CDA-126	Reliability of PWR Fuel Element Thermocouples at High pH with LiOH.	P. Cohen	12-57

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*WAPD-CDA(AD)-27	Revised Estimate of PWR Fission Product Activity with Defective UO_2 Fuel Rods.	F. W. Pement	7-57
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*WAPD-PC-166	General Requirements for the PWR Nuclear Instrumentation System.	W. P. DiPietro	5-55
*WAPD-PMM-185	Design of an Apparatus for Pile Irradiation of Aqueous Solutions at High Temperature and Pressure with Circulating Flow for Use in the L 42 Position of the MTR.	R. H. Giffen	11-54
*WAPD-PWR-CP-2130	Recommendation of Poison Substance for Emergency Chemical Shutdown of PWR.	P. Cohen	5-56
*WAPD-PWR-CP-2649	Removal of Boric Acid Following Chemical Shutdown of PWR.	C. S. Abrams	12-56
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*WAPD-PWR-PA 2025	PWR Flow Coastdown Curves for Simultaneous Loss of all Four or all Three Pumps.	H. B. Ketchum	10-57
*WAPD-PWR-PC 1057	Interim Report of Reactor Protection System Evaluation Study Recommendations.	N. E. Wilson	11-57
*WAPD-PWR-PC 1154	PWR Peak Xenon Reactivity.		12-57
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*WAPD-PWR-PCR-152	PWR Transient Xenon Study.	A. I. Moss	6-56
*WAPD-PWR-Ph-112	Slab Experiments II. Uranium Metal Reflector.	W. H. Hartley	5-56
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*WAPD-PWR-Ph-152	PWR Mock-Up Experiments--I.	W. H. Hartley	12-56
*WAPD-PWR-Ph-197	Intercomparison of Cadmium-Indium-Silver, Hafnium, and Cadmium-Silver Control Rods.	R. F. Valentine	7-57
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*WAPD-PWR-PMF-350	Coolant Discharge and Vent System: Safety Valve Requirements of the Flash and Blow-off Tanks.	A. P. Zechella	6-56
*WAPD-PWR-PMF-999	Allowable Leak Rate from the Primary Plant.	W. R. Ellis	3-58
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*WAPD-PWR-(RD-1) 198	Core Instrumentation Readings.	J. J. Brennan	11-57
*WAPD-RM-182(Del)	Xenon and Samarium Concentrations Produced by Various Flux Programs.	H. J. Kirk	3-57
*WAPD-S5W-C-288	Engineering Report of S5W Condensate Pot. Calculations and Results. (Standard Bailey Meter Company Condensing Pot Part No. 49693).	G. H. Hasley	12-56
*WAPD-S5W-EP-45	Self-Shielding Effects and the Calibration of the RMF. (S5W Applied Physics-WAPD-21 Program).	C. P. Jamieson P. B. Parks	10-56
*WAPD-SC-540 (Vol. I(Del))	Interim Report on Reactor Hazard Associated with the Pressurized Water Reactor Plant at Shippingport, Pennsylvania.		5-58

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WAPD-SC-540 (Vol. II(Del.))	Interim Report on Reactor Hazards Associated with the Pressurized Water Reactor Plant at Shippingport, Pennsylvania.		5-58
WAPD-SFR-G-168	Methods of Resisting Torque and Lateral Loads Imposed by Control Rods (STR Core 4 and SFR Cores).	G. H. Cohen	11-55
WAPD-T-288	Feasibility Study of a Heterogeneous-Homogeneous Nuclear Power Reactor (Thesis)	C. H. Randall	10-56
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FSC-1959-99	Film List. Popular Level.	Film Library, AEC	1959
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C-245	Criticality Considerations in the Design of Plants Using U^{235}.	J. D. McLendon	3-59

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UCRL-8103 Rev.	Spallation Reactions of Californium-252 with Helium Ions	T. Sikkeland, S. Amiel, S.G. Thompson	2-59
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UCRL-8636	Decay Schemes of the Isomers of Tc^{95} and Tc^{97}	J.P. Unik, J.O. Rasmussen	3-59
UCRL-8643	K^{-}-Hydrogen Charge-Exchange Scattering	P. Eberhard, A.H. Rosenfeld, F.T. Solmitz, R.D. Tripp, M.B. Watson	2-20-59
UCRL-8670	The Pion-Nucleon Interaction and Dispersion Relations	G.F. Chew	1-20-59
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UCRL-8679 Abstract	Electronic Energy Levels in U V Derived from the Absorption Spectrum of UF_4 in CaF_2	J.G. Conway	2-59
UCRL-8688	The Effect of a Pion-Pion Scattering Resonance on Nucleon Structure	W.R. Frazer, J.R. Fulco	3-17-59
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UCRL-8702	Three Body Decays of K_2^0 and K_1^0	F.S. Crawford, Jr. M. Cresti, R.L. Douglass, M.L. Good, G.R. Kalbfleisch, M. L. Stevenson	3-26-59
UCRL-8704	Experimental Generation of Plasma Alfvèn Waves	T.K. Allen, W.R. Baker, R.V. Pyle, J.M. Wilcox	3-30-59

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Available from				
Mech. Eng.	UCID-658 (4901-01 MT5)	Bevatron 12 x 60 Beam Analyzer, Magnet No. 2, AEC 31609 Magnet Test 18504 - 1-21-57	P.G. Watson	4-16-57
Mech. Eng.	UCID-659 (4313-03 M15)	72 Inch Bubble Chamber Operation - Expansion Line Thermocouples During 2nd Nitrogen Run Cooldown	H.P. Hernandez	3-12-59
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Mech. Eng.	UCID-661 (7909-23 M1)	Equipment Fabrications - Berkeley General Physics Research 8 Inch x 16 Inch Quadrupole Magnet Design	W.O. Brunk	1-15-59
Mech. Eng.	UCID-662 (4313-03 M17)	72 Inch Bubble Chamber - Valve Locations: MV V200 V400 V600 V700 V900 SER	J. Ferrie	2-28-59
Mech. Eng.	UCID-663 (4320-53 M12)	Resume of Track Detection Problem: Part II	B. McCormick	1-30-59

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4310-17 MT-10	Quadrupole Magnets Symmetry Measurements	L. G. Ratner	3-19-59
4310-17 MT-10A	Quadrupole Magnets Symmetry Measurements	L. G. Ratner	3-19-59
4320-01 M4	Datex Code GB - 108 Disk K - 106 Translators	J. Braley, J. Franck	3-12-59
4507-41 M1	Power Supply Racks Stability Under Earthquake	C. G. Larson	3-25-59
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EE-609	AIEE General Meeting - Winter 1959	C. A. Harris A. A. Windsor	3-23-59
EE-611	Proposed Revision of Bevatron Magnet Connections	G. Farly	3-25-59
EE-615	Information and Instructions for Grounding Circuit Bevatron Magnet - Yoke and Leg Plates	F. C. Caldera	4-1-59