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UNIVERSITY OF CALIFORNIA

Radiation Laboratory  
Berkeley, California

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LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY  
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May 1, 1957

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Radiation Laboratory  
University of California  
Berkeley, California

May 1, 1957

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*AD-93911	Animal Feeding Studies on Wholesomeness of Irradiated Foods. Progress Report No. 1 [for] January 15, 1955 to May 15, 1955.	L. J. Teply B. E. Kline Wisconsin Alumni Res. Foundation Madison	
AEC-tr-2867	On the Behavior of Radioactive Fission Products in Soil, Their Absorption by Plants and Their Accumulation in Crops, ed. by V. M. Klechkovsky (i. e., Klechkovskii). Trans. of an Akademiia Nauk, SSSR, report.	Washington D. C. AEC	
*AECD-3714	Industrial Hygiene Survey of Thorium Rolling at Simonds Saw and Steel Company.	C. E. Schumann National Lead Co. of Ohio, Cincinnati	12-14-53
*AECU-3351	The Role of Bacterial Infection in Radiation Injury	C. P. Miller Chicago Univ.	12-28-55
*AECU-3378	The Mechanism of the Photochemical Activity of Isolated Chloroplasts. 3. Light Intensity Dependence. 4. Effect of pH. 5. Effect of Heavy Water. Technical Report No. 21.	J. S. Rieske J. D. Spikes R. Lumry Utah Univ.	7-15-56
*AECU-3394	Some Health Considerations in the Handling of Tritium.	W. H. Kingsley F. G. Hirsch Sandia Corp.	6-6-56
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- \* AERE-HP/M-23 Emergency Tolerance for Fission Products in Drinking Water A. C. Chamberlain 3-14-51
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- \* AERE-Inf/Bib-48 A List of Reports on Measurement of, and Protection Against,  
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- \* AERE-Inf/Bib-91 The Chemical and Biological Aspects of Tritium. A Bibliography  
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- \* AF-SAM-56-8 The Influence of Total Body X-Irradiation and Immunization on  
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- \* AF-SAM-56-50 Aspects of the Relationship Between Irradiation Injury and  
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- \* AF-SAM-56-90 Biological and Medical Aspects of Ionizing Radiation. Spinal  
Reflex Activity and Local X-Irradiation. E. B. Konecci 3-22-56  
M. B. Danford  
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- \* AF-SAM-57-36 Protection of Pyrimidines by Sulfur Compounds from Destruction  
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*AFSWP-496	Analysis of Animal Whole-Body Irradiation Data.	UCRL-3765 Smith (E. H.) and Co., Silver Spring, Md.
FWE-107	Safety Levels for Contamination from Fall-Out from Atomic Weapons Trials	G. C. Dale 10-55 Gt. Brit. Atomic Weapons Res. Est. Aldermasten, Berks and Tech. Cooperation Program, AEC.
GAT-184/Rev. 1	A Study of the Fluoride Concentration in the Scioto River and Tributary Streams	H. L. Burkhardt 4-1-57 H. L. Caterson B. Kalmon et al Goodyear At. Corp.
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*A-1047	Brown Oxide by-Product Recovery--II	J. V. Opie 8-23-43 W. A. Oppold G. C. Reid Mallinckrodt Chem.
*AD-75227	Literature Survey on the Diffusion of Metals into Oxides. Period Covered: 1946-1952. Progress Report No. 1	J. Lommel 12-15-53 Ill. Inst. of Tech
*AD-102749	Development of an RF Mass Spectrometer for Trace Detection Technical Note No. 17 for the Period April 1, 1956 to June 30, 1956	M. K. Testerman 7-1-56 Arkansas Univ.
*AECD-3738	Recovery of Uranium From Wet Process Phosphoric Acid. Final Report.	P. J. Quinn 10-54 Armour Fertilizer

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*AECD-3762	Notes on Degradation of Heavy Water Moderator by Ion Exchange Beds and Metal Surfaces	Savannah River [1956] AEC
*AECD-4054	Hydrofluorination of Zirconium Oxide	Carbide and Carbon Y-12 D. Phillips 8-2-50
*AECU-3200	Vapor Traps for Handling Liquid Sodium	A. J. Erickson 8-25-51 C. L. Gregory P. M. Lang Mass. Inst. of Tech.
*AECU-3249	The Estimation of Radiation Doses from Indium Foil Activity	J. C. Bailey 6-30-55 H. F. Henry Carbide and Carbon Chem. K-25
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*AECU-3355	Analysis of Corrosion Products from WAPD Loop Test. Work Performed October-November 1953	J. A. Marinsky 12-15-53 C. M. Cobb A. E. Baker et al Ionics, Inc.
*AECU-3356	Progress Report [for] February 15 to March 12, 1954	E. A. Mason 3-15-54 same
*AECU-3357	Progress Report [for] March 15 to April 15, 1954	C. M. Cobb 4-23-54 same
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*AECU-3359	Treatment of Wastes Containing Radioactive Barium, Lanthanum Strontium, and Yttrium	J. P. Hutchinson [1956] E. H. Rex E. R. Mathews et al Los Alamos Sci. Lab

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*AECU-3360(Pt.I)	Radiochemical Separations. I. Barium, Strontium, and Calcium.	D. N. Sunderman [1955 ?] W. W. Meinke Mich. Univ.
*AECU-3360(Pt.II)	Radiochemical Separations. II. Separation of Radioactive Silver by Isotopic Exchange	same [1955 ?]
*AECU-3363	O <sup>18</sup> Study of the Reaction of Hydroxide with Mercury (II) Nitrate. Characterization of Basic Mercury (II) Nitrates. Technical Report [on] Fundamental Research on Isotopic Reactions.	R. B. Bernstein 10-56 H. G. Pars, D. C. Blumenthal same
*AECU-3364	X-Ray Scattering by Solids Containing Vacancies and Interstitial Atoms	A. H. Kahn [1955 ?] Ill. Univ.
*AECU-3365	Stark Effects in Line Broadening	H. Margenau 5-23-56 RAND Corp. Santa Monica
AECU-3370	Process Waste Water Treatment Plant. Preliminary Report	Oak Ridge Nat. 2-57 Lab., (Tenn.) and Burns and McDonnell Engr. Co.
*AECU-3400	Hydrolytic and Ion Pair Adsorption Processes in Flotation, Ion Exchange and Corrosion. Tech. Report No. XXVI	M. A. Cook 11-1-56 M. E. Wadsworth Utah Univ.
*AECU-3406	The Effect of Radioactive Substances on Sludge Digestion. Final Report	R. H. Harmeson 1-57 J. C. Dietz Ill. Univ.
*AECU-3414	Separator Literature Survey	W. H. Moyer 7-29-54 Babcock and Wilcox Co. Res. Center Alliance, Ohio

- \*AECU-3416 Neutron-Sensitive Thermopile for Reactor Applications. Progress Report No. 1 [for] Period Ending December 1, 1956 D. Robertson  
Leeds and Northrup
- \*AERE-C/M-23 Detection of Plutonium by Irradiation in the Pile H. A. C. McKay [1949]
- \*AERE-C/M-31 (Del.) Some Heat, Partition and Density Data for the System Uranyl Nitrate-Ammonium Nitrate-Hexone R. Jenkins 9-49  
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- \*AERE-C/M-39 A Comparison of Operating Characteristics of a Gridded Air-Chamber and a Methane Proportional Counter for Routine  $\alpha$ -Counting K. D. B. Johnson 10-5-49
- \*AERE-C/M-79 The Analytical Control of the Uranium 233 Extraction Process: A Survey of Available Methods. L. Airey 12-50
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- \*AERE-C/M-113 The Solubilities of Plutonium Tetranitrate in Tri-N-Butyl Phosphate Kerosene and Ethyl Alcohol J. K. Dawson 6-21-51  
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- \*AERE-C/M-157 A Study of the Reaction Between Dry Oxygen and  $PuF_4$  at Temperatures above  $700^\circ C$  C. J. Mandelberg 7-18-52  
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- \*AERE-C/M-185 A Pen Recording Polarograph for Analytical Applications. R. N. Whitterm 9-3-53  
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- \*AERE-C/M-186 The Reaction of Fission Product Iodine with Solvents N. J. Keen 10-53  
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*AERE-C/M-203	The Preparation of Plutonium-242 by Neutron Irradiation of Americium-241: A Preliminary Study.	J. Milsted	4-54
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*AERE-C/M-248	The Reaction Between Carbon and Hydrogen; Thermodynamic and Kinetic Considerations of Interest in Connection with a Graphite Moderated Hydrogen Cooled Pile.	W. G. Burns	5-3-55
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*AERE-C/R-874	An Experimental Determination of the Specific Activity and Isotopic Content of a Plutonium Sample	G. R. Hall A. J. Walter	12-17-51

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*AERE-C/R-881	An Improved $\alpha$ -Electroscope. Part II. (A) Self-Absorption (B) The Design of an Electroscope for Liquid Sources. Includes Appendix I. A Mathematical Treatment of Self-Absorption	C. J. Mandleberg R. P. Henderson et al	6-6-52
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*AERE-C/R-1661	The Separation of Zirconium and Hafnium from Calcium Nitrate, Aqueous Nitric Acid Solutions with Selected TBP Solvent Systems	F. Hudswell E. Furby B. R. Harder et al	5-12-55
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*AERE-CE/M-177	The Hydraulic Cyclone as a Liquid-Liquid Contactor and Separator	D. Bradley	[1956]
*AERE-CE/M-188	Use of a Radiometric Technique to Investigate the Settling of Aqueous Thoria Slurries	J. W. Hitchon	10-29-56
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*AERE-M/R-1075	The Control of Uranium Fires	H. Lloyd	12-9-52
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*AERE-M/R-1181	An Approximate Determination of the Specific Heat of $\alpha$ -Plutonium	UCRL-3765 P. G. Mardon J. A. L. Robertson J. G. Ball	4-30-53
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Monograph 2740	Carrier Lifetime in Indium Antimonide. Reprinted from Physical Review <u>104</u> , 662-4 (1956)	G. K. Wertheim 2-57 Bell Telephone Labs
Monograph 2753	Hydrogen as a Donor in Zinc Oxide. Reprinted from Journal of Chemical Physics <u>25</u> , 1136-42 (1956).	D. G. Thomas 3-57 J. J. Lander same
NAA-SR-1734	Solid and Liquid Drossing of Thorium Containing Tracer Level Fission Products	N. D. Potter 4-15-57
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NBL-134	Semiannual Progress Report for the Period July 1956 through December 1956	New Brunswick 4-57 Lab, AEC.,
*RMO-2035	Uranium Recovery--Acidulation of Phosphate Rock	H. W. Lont, Jr. 2-28-55 J. B. Adams R. Bart International Minerals and Chemical Corp.
*RMO-2043	Analytical Procedures for Uranium	M. T. Esterdahl 2-28-55 J. H. Gross J. B. Adams et al same
*SC-1851(TR) (Del.)	Silica Gel	A. M. Lanche 6-25-51
*SCEL-TM-1707	A Gamma-Ray Spectroscopic Analysis Technique. (As of September 20, 1955)	S. H. Ungar 11-1-55 Evans Signal Lab

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- \* WADC-TR-55-58 A Study of the Effects of Nuclear Radiations on Elastomeric Compounds and Compounding Materials. [Period covered] January 1955 to January 1956 J. W. Born 12-55  
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- \*WADC-TR-56-318 Chemistry of Boron Hydrides and Related Hydrides R. W. Parry 8-56  
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- \*WADC-TR-56-399 Polymer Evaluation Handbook. [Period covered] June 1955 to June 1956 C. H. Adams 6-56  
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- \*WAPD-PWR-CP-2231 PWR Chemistry Program, June 1956
- \*WAPD-RM-35 Recovery of Iodine from Crystal Bar Unit Wash Water H. R. Hoge 6-20-51  
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