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March 8, 1946

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RADIOCHEMISTRY OF THE FISSION PRODUCTS

Compiled by

L. Winsberg

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INTRODUCTION

As is true in nearly all sections of the project we in the fission products groups at Chicago, Clinton, and Los Alamos have found the volume of reports so large that it is often very difficult to refer back to previous work. The purpose of this index is to provide ready access to any item in the large number of reports on the fission products.

This report is a continuation of the indexes published by C. D. Coryell in January, 1943, as CC-477 and by L. Winsberg in February, 1944, as CN-1505 and all the references therefrom are included here. The reports available in the document room at Los Alamos through the month of November, 1945, have been included in this index. We plan to bring this index completely up to date within the next several months.

A few things need to be mentioned:

1) For most of the reports issued before March, 1943, a letter follows the report number, e.g., CC-465-B. This letter refers to the section of the report which contains our work.

2) There are two parts to the report index. The first part is a listing of reports by the fission products groups and the second, entitled Other Reports, by groups not specifically assigned to a study of the fission products but which have on occasions done work of interest to fission product radiochemistry. All of these reports are included in the Subject Index.

3) The half-life, element, and mass assignments indicated for an activity are the latest values known and all work done on the activity is included under those values.

Criticisms, suggestions, and corrections will be appreciated.

* * *

I wish to acknowledge with gratitude the cheerful assistance of Miss Anna Marie Horan and Miss Mary Wirz.

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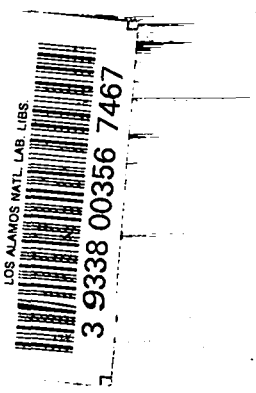
L. Winsberg



Index of Reports

Chemistry of the Fission Products

A. Report Index

Section C-III, Chicago-	C. D. Coryell	May 1942- September 1943
	N. Sugarman	September 1943- April 1945
	W. Rubinson	April 1945
Section C-II, Clinton-	C. D. Coryell	September 1943
Section C-V, Clinton-	D. N. Hume	January 1945- January 1946
Section C-VI, Clinton-	N. Elliott	February 1945
Group F-4, Los Alamos-	N. Sugarman	April 1945- February 1946

Report	Date 1942	Main Topics and Authors
CC-144	June	Possibility of preparing $U(CO)_6$ (N. Sugarman, N. Elliott, C. D. Coryell)
CC-175-D	July 3	Preliminary (C. D. Coryell, Section Chief)
CC-188-E	July 11	La fraction; 2 Ce isotopes; $SbBr_3$ loss (C. D. Coryell, Section Chief)
CC-196-E	July 18	Br, Sb, Te, I, Ce, La, Y
C-200	July 15	I Fission chains and energies II Energy-range data for electrons III Energy-absorption data for quanta (C. D. Coryell)
CC-208-E	July 25	Absence of hard γ with Ba^{140} Hard γ of La^{140} decay (C. D. Coryell, Section Chief)
CC-219-E	Aug. 1	Fission Product sources (C. D. Coryell, Section Chief)
CC-227-E	Aug. 7	Direct separation of $BaCl_2$ Separations of Ba from La and Ce (C. D. Coryell, Section Chief)
CC-238-D	Aug. 15	Hard γ from 44h La^{140} General chem. methods; Sr, Ba, La, etc (C. D. Coryell, Section Chief)

Report	Late 1942	Main Topics and Authors
CC-258-D	Sept. 15	Fission yields Ba, Br Chem. separations Ce, Y, La, Ar, Cs Apparatus for study recoils in He, prelim (C. D. Coryell, Section chief)
CA-287	Oct. 3	First trial, accumulation of radioactivity in cooling gases (C. D. Coryell, Section chief)
CC-298-D	Oct. 15	12d Ba; 44h La; 27y Cs; La; Y; Ce (C. D. Coryell, Section Chief)
CC-342-F	Nov 15	Elementary distribution Fission Activity (C. D. Coryell, et al) 5.3d Xe^{133}; (N. Elliott) Gases from Graphite (W. Rubinson, E. L. Brady)
CC-389-B	Dec. 15	Tabulation chains; Elementary distribution fission activity; Identification of Pr; (N. E. Ballou) Radiations from Xe^{127}; (N. Elliott) Quantitative study radioactivity from recoil in gases; (N. Sugarman)
CT-393-D	Dec 15	Gases from Graphite (W. Rubinson, E. L. Brady)
	1943	
CC-418-B	Jan. 15	Accumulation of Radioactivity by Recoil (N. Sugarman) Application to the pile (N. Sugarman) Radiations from Zr and Cb (E. L. Brady, D. W. Engelkemeir) Absence of Activity in In. (L. E. Glendenin)
CC-465-B	Feb. 13	1. Elementary breakdown of fission activity in pile operation up to 100 days (C. D. Coryell, et al) 2. Energy dissipation among fission products (N. Elliott) 3. Identification of some fission product chains of gaseous ancestry (E. L. Brady, N. Sugarman, et al) 4. Radioactivity in an air-cooled pile (N. Sugarman 5. Rare earth fractionations and identification of rare earth fission products other than Ce (N. E. Ballou) 6. Fission product and cyclotron Ce activities (N. E. Ballou)
CC-477	Jan. 31	Index of reports, Chemistry of the Fission Products (C. D. Coryell)

Reports	Date 1943	Main Topics and Authors
CT-482-F	Feb. 20	Composition of gases evolved from graphite on heating to 5000C in the absence and presence of metal (W. Rubinson, C. D. Coryell)
MUC-CDC #7	Feb. 27	UX_1 and UX_2 absorption curves and the possibilities of their use for the determination of coating thicknesses (C. D. Coryell, H. Gest, D. W. Engelkemeir)
CN-528	Mar. 13	1. The experimental ratio of capture to fission for the cyclotron together with preliminary measurements for the pile (D. W. Engelkemeir, E. L. Brady, W. H. Burgus) 2. The coprecipitation of Ba in the wet fluoride process as a function of Ba hold-back carrier concentration (N. E. Ballou, C. L. Coryell, H. Gest) 3. The radioactivity of certain pile products as a function of time (C. D. Coryell)
CC-529	Mar. 13	1. Decay of gross fission product β activity and energy after short bombardments (N. Elliott, N. Sugarman) 2. An attempt to establish yield of 27 in pile materials (W. Rubinson, C. D. Coryell) 3. Some considerations on counting arrangements for precision work (D. W. Engelkemeir, J. B. Dial, C. L. Coryell) 4. Revised relative fission yield data (E. L. Brady, L. Creutz) 5. Contributions to the radiochemistry of the fission products (L. E. Glendenin, N. E. Ballou, E. L. Brady G. W. Campbell, T. B. Novey, W. H. Sullivan A. S. Newton, N. R. Sleight, O. Johnson W. H. Burgus, C. D. Coryell)
CN-576	Apr. 15	I. Gross Decontamination II. Specific Decontamination (C. D. Coryell)
CC-579	Apr. 17	1. Elementary breakdown of fission activity in the pile operation up to 170 days (C. D. Coryell, et al) 2. Heat generation of individual β and γ activities (L. Winsberg, W. Rubinson) 3. New fission product activities and recalculation of old data (L. E. Glendenin, E. P. Steinberg, N. E. Ballou) 4. Theoretical Study of β-Absorption Curves and Correlation with Feather Method of β-Energy Determination (T. B. Novey et al)

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Reports	Date 1943	Main Topics and Authors
CC-643	May 19	Time variation of percent distribution of fission activity in bombarded uranyl nitrate (E. L. Brady, C. D. Coryell)
CC-680	May 20	1. Experimental study of induced and fission recoil activity in air and the X-pile (N. Sugarman, J. D. Knight) 2. New fission product activities and re-evaluation of old date (L. E. Glendenin, E. P. Steinberg, N. E. Ballou, T. B. Novey, W. H. Burgus) 3. C^{14} Activity in cyclotron bombarded nitrate (W. Rubinson, A. Turkevich) 4. Coseparation of Ba in LaF_3 Precipitations (H. Gest, B. Abraham, N. E. Ballou, C. D. Coryell)
CN-692	May 29	Separation Processes Section I. E. Specific Decontamination in $BiPO_4$ Process (W. Rubinson, Supervisor)
CN-722	June 21	Elementary activities present at different stages in the wet fluoride process (W. Rubinson, Supervisor
CC-724	June 21	1. 7.0d Uranium (E. L. Brady, W. Rubinson) 2. Energy of 9.3h Te (G. W. Campbell)
CC-763	May 15	The beta and gamma radiations from the chain 77h Te $\rightarrow$ 2.4h I (T. B. Novey, W. H. Sullivan, C. D. Coryell, A. S. Newton, N. R. Sleight, O. Johnson)
CN-771	July 10	Capture and fission in metal, nitrate, and oxide; Monitoring of columns and masses at the St. Louis cyclotron to provide for higher product yield (A. Turkevich, T. P. Kohman, A. H. Jaffey, C. D. Coryell, D. Engelkemeir, N. Elliott, T. B. Novey, H. S. Brown, N. R. Davidson) 1. Most effective moderation of very fast neutrons by uranium metal 2. Fast-neutron multiplication in uranium metal 3. Competition by other fast neutron processes when nitrate is close to the target 4. Competition of slow neutron reactions

Reports	Date 1943	Main Topics and Authors
CH-774	July 15	Concentration of by-products in cooling water and river water from W pile (C. D. Coryell, J. Howe, E. O. Wollan) 1. Tolerance concentration of radioactive products in water 2. Pile constants assumed for W operation 3. Radioactivity induced in water by neutrons including recoil from the Al piles 4. Radioactive contamination of the water from fission recoil 5. Radioactive contamination of water resulting from metal dissolved at points of coating failure 6. Corrosion products 7. Summary of activity after 8 hour holdup
CC-793	July 19	1. Determination of absolute fission yields (D. W. Engelkemeir, T. B. Novey, D. Schover) 2. Thorium fission - Study of chemical procedures in quantitative isolation of fission activities for Th (N. Sugarman, M. F. Ravely, L. E. Glendenin, H. Finklestein) 3. Improved method for determination of UX (L. Winsberg) 4. The electrostatic β-ray spectrograph (B. Abraham)
CC-829	July 29	Activity and β and γ energy dissipation of the long-lived fission products (J. A. Lane, E. L. Brady)
CN-850	Aug. 12	1. Decontamination of specific elements in the $BiPO_4$ process (H. B. Evans, G. R. Leader, J. P. Tordella, D. N. Hume) 2. The oxidation of ferrous ion by nitric acid at 75° (W. H. Burgus, G. R. Leader) 3. β-Decontamination of $BiPO_4$ process mother liquor with varying amounts of $BaSO_4$ and $ZrO(H_2PO_4)_2$ (J. P. Tordella)
CC-851	Aug. 7	1. Elementary breakdown of the fission activity in irradiated nitrate up to 250 days cooling (C. D. Coryell, et al) 2. An investigation of the methods used to determine β counting geometry (D. W. Engelkemeir, W. Rubinson, N. Elliott) 3. The thorium iodate method for analysis for UX - detailed procedure (L. Winsberg)

Reports	Date 1943	Main Topics and Authors
CC-851 (cont'd)		4. Studies on the oxidation of Ce for separation from other rare earths by iodate precipitaion (N. E. Ballou) 5. Zr iodate isolation of Ce activity without carrier (N. E. Ballou) 6. Tests on separating La and Y by ammonium formate (N. E. Ballou)
MUC-CDC #76	Sept 7	Estimated gamma curies in a 30 day X slug (C. D. Coryell)
CC-929	Sept. 15	1. Determination of pile fission yields (T. B. Novey, D. W. Engelkemeir, E. L. Brady) 2. Decay of gross fission product γ-activity and energy after short cyclotron bombardments (N. Elliott, S. Katcoff, J. D. Knight, N. Sugarman) 3. Thorium fission work (N. E. Ballou, W. H. Burgus, J. B. Dial, L. E. Glendenin, H. Finklestein, M. Ravely, B. Schloss, N. Sugarman) 4. Rare earth chemistry and separation procedures (N. E. Ballou) 5. New fission activities and re-evaluation of old data (L. E. Glendenin, E. L. Brady) 6. Yield of 7.0d U^{237} from cyclotron neutron bombardment (E. L. Brady) 7. Preliminary search for positron emitters among fission products (D. W. Engelkemeir, L. E. Glendenin, N. Sugarman)
CN-933	Sept. 11	1. Specific decontamination factors (T. H. Davies, et al) 2. Scavenger studies on γ decontamination (T. H. Davies, et al) 3. Ru coseperation (T. H. Davies, et al) 4. Zr and Cb hold-back in the presence of HF (T. H. Davies, etaal) 5. The solubility of bismuth phosphate (C. R. Dillard, H. B. Evans, G. R. Leader, L. Safranski, D. Revinson, R. Bane) 6. Volatilization of Ru, I, and Te accompanying metal dissolving (C. R. Dillard, D. N. Hume, G. R. Leader) 7. Oxidation of .04 M Fe^{+2} solution by HNO_3 (W. H. Burgus, G. R. Leader) 8. Attempted electrophoresis studies on $BiPO_4$ suspensions (H. Gest, B. Schloss)

Reports	Date 1943	Main Topics and Authors
CT-959	Sept. 27	Report on Columbia Scaling Circuit (B. Schloss, S. Robinson) I. Scaling circuit troubles II. The circuit action III. Experimental IV. Discussion V. Circuit modifications VI. Summary
Addendum I to CT-959	Nov. 16	(B. Schloss, S. Robinson)
CC-971	Sept. 15	Procedures for the determination of the fission elements in UNH (Editors: C. D. Coryell, W. Rubinson, D. N. Hume, T. H. Davies) Cesium, barium, barium and strontium, cerium, lanthanum, yttrium and praeseodymium, zirconium and columbium, molybdenum, ruthenium and 43, silver, tellurium, iodine, bromine, uranium x (L. E. Glendenin, W. H. Burgus, D. W. Engelkemeir, N. E. Ballou, E. L. Brady, J. B. Dial, T. B. Novey, G. W. Campbell, L. Winsberg)
Addendum I to CC-971	Oct 20	Procedure for analysis of Zr and Cb in UNH (E. P. Steinberg)
MUC-CDC #80	Sept. 20	Information on slow neutron fission products
CC-988	Oct. 11	1. Fast method for rough analysis of $BiPO_4$ process solutions-preliminary (W. Rubinson, L. Winsberg) 2. New method for the separation of zirconium and columbium from bombarded uranyl nitrate (E. P. Steinberg) 3. P-9 studies - distribution of products in an oxide-water system (C. R. Dillard, H. Finkelstein, A. Turkevich) 4. Decay of gross fission product γ-activity and energy after short cyclotron bombardment (cont'd) progress report (S. Katcoff, B. Finkle, N. Sugarman) 5. Radioactivity in graphite at Argonne (J. Abrahm, A. Turkevich, W. Rubinson L. Winsberg, E. P. Steinberg)

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Reports	Date 1943	Main Topics and Authors
CN-999	Oct. 11	I. Capture to fission ratio for pile material (D. W. Engelkemeir, T. P. Novey, D. Schover) II. Bismuth phosphate process studies (G. R. Leader, J. T. Lassiter, E. Mapp, J. Tordella, C. Stanley, H. B. Evans)
CC-1042 (A-1462)	Nov. 11	Rates of energy generation and curies activity of long-lived radioelements from a 1000 KW pile as a function of days of pile operations and days cooling (E. L. Brady, L. Winsberg, L. Creutz, W. Rubinson)
CC-1043 (A-1440)	Nov. 10	Fast methods for analysis of rare earths and UX (L. Winsberg, E. P. Steinberg, J. A. Seiler, W. Rubinson) 1. Isolation of Ce 2. La-Y and UX
CN-1044 (A-1433)	Nov. 10	I. Weights of fission products in pile material (T. P. Kohman, A. Turkevich) II. Bismuth phosphate method for extraction and decontamination of Pu (G. R. Leader, E. Mapp, R. B. Evans, C. Stanley, W. Rubinson)
CC-1050 (A-1456)	Nov. 9	1. Tracer studies and the preparation of carrier-free tracers (T. H. Davies, D. N. Hume, L. E. Glendenin, N. E. Ballou) 2. New information of fission products (L. E. Glendenin) 3. An investigation of the UX_2 β radiation emitted by uranium foils (N. Elliott)
CC-1051 (A-1457)	Nov. 8	4. Determination of fission elements in process solutions (D. N. Hume, N. E. Ballou) 5. Scavenging experiments and process decontamination (T. H. Davies, W. H. Burgus, H. Gest)

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Reports	Date 1943	Main Topics and Authors [redacted]
CN-1055 (A-1452)	Nov. 8	1. The effects of pile radiation upon various substances (G. Jenks, R. A. Day) 2. By-product concentration studies (G. Jenks, R. A. Day, J. W. Boyle) 3. The effect of W activities on the separation Processes (L. T. McClinton)
CC-1109 (A-1452)	Dec 11	1. Effects of radiation on glass and masonite (R. A. Day, G. Jenks) 2. Status of water tube experiments (G. Jenks, J. W. Boyle) 3. Concentration of by-products (R. A. Day, L. T. McClinton)
CC-1112 (A-1600)	Dec 11	1. Growth, decay and energetics of the long-lived Zr-CP chains (L. S. Goldring, C. D. Coryell) 2. Tracer chemistry and the preparation of carrier-free tracers (L. E. Glendenin, H. Gest, D. N. Hume, N. E. Ballou) 3. New data on the fission products (L. E. Glendenin, C. D. Coryell) 4. Pile and physical studies group; progress report (N. Elliott, J. D. Knight, T. B. Novey, D. Schover) 5. Hot laboratory operations (H. A. Levy, L. G. Stang, E. L. Brady, W. D. Webb, C. D. Coryell)
CN-1113 (A-1601)	Dec. 11	6. Fission product analyses in process solutions (W. H. Burgus, T. H. Davies) 7. Scavenging experiment and process decontamination (W. H. Burgus, H. Gest, R. R. Edwards) 8. Literature references (C. D. Coryell)
CC-1128 (A-1616)	Dec. 11	Decay of gross fission product β-activity and energy after short bombardments (S. Katcoff, B. Finkle, N. Elliott, J. D. Knight, N. Sugarman)
CN-1141 A-1628)	Dec. 18	1. Capture to fission ratio for Argonne metal (D. W. Engelkemeir, M. Freedman) 22. Bismuth phosphate process studies (E. R. Leader, H. B. Evans, E. Mapo, C. Stanley)

Reports and	Date 1943	Main Topics and Authors
CC-1142 (A-1629)	Dec. 13	1. Revised fission yield of 65d Zr (E. P. Steinberg) 2. New methods of analysis -UX, La-Y, and Zr and Cb (L. Winsberg, J. A. Seiler, E. P. Steinberg) 3. Fast, rough analysis of UNH solutions (L. Winsberg, J. A. Seiler, E. P. Steinberg, W. Rubinson) 4. Behavior of some products in a homogeneous system (C. R. Dillard, A. Turkevich, H. Finkelstein) 5. Sweeping out fission product from a homogeneous system (C. R. Dillard, A. Turkevich, H. Finkelstein, R. M. Adams) 6. Search for radioactivity in Ce^{140} arising from La^{140} in fission (N. Sugarman)
	1944	
CC-1204 (A-1684)	Jan. 11	1. General radiochemistry: the system 12.5d Ba^{140}---40h La^{140} (H. A. Levy, L. G. Stang) 2. Discussion of fission yield irregularities; the four ghost isotopes (C. D. Coryell) 3. The isotope U^{236} (C. D. Coryell) 4. Tracer preparation chemistry (N. E. Ballou, D. N. Hume 5. Fission product analysis (N. E. Ballou) 6. New data on the fission products (C. D. Coryell, L. E. Glendenin) 77. Pile studies (J. D. Knight) 8. Physical studies and counting standardization (N. E. Elliott, E. Shapiro, T. B. Novey) 9. Hot laboratory operations (C. D. Coryell, H. A. Levy, C. V. Cannon, G. Jenks, J. W. Boyle, L. T. McClinton, R. A. Day, E. Shapiro) 10. Radiation chemistry (R. A. Day, J. W. Boyle, G. Jenks
CN-1205 (A-1685)	Jan 11	11. Fission product analysis in process solutions 12. Process thermodynamics (C. D. Coryell, T. H. Davies) 13. Process decontamination (H. Gest, E. H. Burgus) 14. Reference list and author index (L. S. Goldring)

Reports	Date 1944	Main Topics and Authors
CN-1214 (A-1696)	Jan 8	1. Studies of the two forms of $BiPO_4$ (H. R. Evans, G. R. Leader, W. Rubinson, G. Stanley) 2. Ru decontamination (H. P. Evans, N. Sugarman) 3. The solubility of lanthanum fluoride in HNO_3 (G. R. Leader, C. Stanley)
CC-1215 (A-1805)	Jan 8	General activities of the section (N. Sugarman, Section Chief)
CC-1302 (A-2040)	Feb 15	Methods for fission product analysis (D. N. Hume, L. E. Glendenin, N. E. Ballou)
CC-1304		Preparation of Carrier-Free Tracers (C. N. Hume, C. D. Coryell, L. E. Glendenin, N. E. Ballou)
M-CC-1306	Feb 24	Some measurements on short-lived activities in Pile-bombarded water (J. D. Knight, T. P. Novey, D. Schover)
CN-1307 (A-2296)	May	The effect of radiation of the $BiPO_4$ Separation Process (L. T. McClinton, G. Jenks, R. A. Day, C. V. Cannon, E. Shapiro, J. W. Boyle)
CC-1308 (A-2286)	April 12	Activities induced in solid residues from Columbia River water (N. Elliott, C. D. Coryell)
CN-1309 A-2281)	April 17	The distribution of fission products in product containing fractions: five plant D-I-P- solutions, all of plant run #43, and all of a liter scale laboratory run (C. D. Coryell, Section Chief)
CC-1310 (A-2285)	May 3	The effect of radiation on water and on aqueous solutions - Part I (E. Shapiro, J. W. Boyle, G. Jenks)
CN-1311 (A-2478)	June 6	The distribution of fission products in product-containing fractions of plant run #86 (C. D. Coryell, Section Chief)

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Reports	Date 1945	Main Topics and Authors
CN-1712 An-X	May 15	Development of methods for the determination of fission product activities in plant process solutions (L. E. Glendenin, N. E. Ballou, D. N. Hume, C. M. Nelson, C. I. McCabe, M. H. Humphrey, D. M. Black, R. I. Martins, D. E. Waters, H. Gest, J. M. Siegel)
CC-1331 (A-1880)	1944 Feb. 7	I. The determination of the absolute yield of 12.5d Ba (M. Freedman, D. W. Engelkemeir) II. Redetermination of fission yields of some moderate-lived fission products (S. Katcoff, B. Finkle, N. Sugarman) III. New activities in X-bombarded eggs (E. P. Steinberg, L. Winsberg) IV. Production of U^{237} at Clinton (A. Turkevich) V. Fission products swept out of a homogeneous system (C. R. Dillard, H. Finkelstein, R. M. Adams, A. Turkevich) VI. The exchange of charge between cerous and ceric ions (J. A. Seiler, W. Rubinson, R. R. Edwards) VII. Experimental study of the 12.5d Ba^{140}-40h La^{140} system (B. Finkle, N. Sugarman)
CN-1332 (A-1881)	Feb. 7	Report for month ending February 7, 1944 (G. R. Leader, C. Stanley) I. Tracer studees on decontamination of Ba, Sr, Ce, and Y II. The effect of certain variables on carrying of Ce and Y by $BiPO_4$ III. Effect of hold-back carrier on carrying of Ce and Y IV. Effect of amount of $BiPO_4$ carrier on carrying of Ce activity V. Effect of iron on formation of abnormal $BiPO_4$
CC-1394 (A-2034)	March 48	Report for month ending March 4, 1944 (A. Turkevich)
CP-1395 (A-2035)	Feb 15	Report for period ending Feb 15, 1944 Electronics group of chemistry section C-III. (B. Schloss)

Reports	Date 1944	Main Topics and Authors
CN-1395 (cont'd)		I. Poor plateaus with thin windown GM tubes II. Positive-suppressor grid voltages, in a scaling circuit III. Effect of tube mismatch in scaling circuits IV. A rapid method for checking the accuracy of a scaling circuit V. Adaptation of Chicago scaler for fission counting VI. Adaptation of Chicago scaler for Nsher-Harper quenching circuit
CN-1505 (A-2088)	Feb. 29	Index of reports, Chemistry of the fission products (L. Winsberg)
CL-CDC #4	March 15	A manual of the radiochemical analysis of fission products in process solutions (D. N. Hume, N. E. Ballou, L. E. Glendenin)
CC-1546 (A-2218	April 17	Report for month ending April 3, 1944 (N. Sugarman, Section Chief)
CC-1559 A-2229)	April 8	Variation in ranges of fission recoil fragments of known mass numbers (M. S. Freedman, R. P. Metcalf, N. Sugarman)
MUC-NS #183	June 6	Cesium Procedure (R. P. Metcalf)
MUC-NS #184	June 6	Silver Procedure (E. P. Steinberg)
CC-1631 (A-2482)	June 10	Contributions to water problem (T. B. Novey, J. D. Knight, D. S. Schover, N. Elliott) 1. Chemical identification of the 8 second activity found in pile irradiated oxygen compounds 2. Preliminary study of the aluminum n, γ recoil range determination by collection in cellophane and benzene
MUC-NS #187	June 19	Factors effecting counting of gamma rays (R. P. Metcalf)
MUC-NS #190	July	Addendum to CL-CDC #4 (N. Sugarman, Section Chief)
MUC-NS #199	July	Plotting absorption curves-counting procedure: plotting the data (N. Sugarman, Section Chief)

Reports	Date 1944	Main Topics and Authors
MUC-NS #200 CN-1394	July	Procedures for short-lived and low fission yield isotopes (Ge, As, Se, Rh, Pd, Sn, Sb, and Eu) (L. Winsberg, J. A. Seiler)
MUC-NS #203	July 3	Cadmium procedure (R. P. Metcalf)
CN-1641 (A-2498)	July 7	Surface reactions of zirconium, barium and tellurium ions with lanthanum fluoride and manganese dioxide (H. Gest, W. H. Burgus)
CC-1683 (A-2498)	May 10	Report for month ending June 10, 1944 (N. Sugarman, Section Chief)
CC-1767 (A-2472)	June 12	Report for month ending June 10, 1944 (N. Sugarman, Section Chief)
CC-1805 (A-2633)	July 14	Investigation of chains with gaseous members (C. R. Dillard, R. M. Adams, H. Finklestein, A. Turkevich)
CK-1806 (A-2634)	June 30	Ranges of U and Pu fission recoil fragments of known mass numbers (B. Finkle, E. Hoagland, S. Katcoff, N. Sugarman)
CN-1839 (A-2496	July 10	Fission product distribution in an adsorption extraction decontamination cycle with an ion exchanger (J. A. Swarhout, D. N. Hume, et al)
CN-S-1843 X (A-2688)	August 6	Scavenger studies with particular reference to by-product precipitates for the removal of rare earth activities (T. H. Davies, J. A. Swarthut, et al)
CN-1868 X-G (A-2690)	July 30	The solubility of $BiPO_4$ in HNO_3 (G. R. Leader, Neville, E. Mapp, H. B. Evans)
CN-1873 S-X	1945 Jan 1	Studies in ion exchange adsorption: equilibria with Pu (IV), fission, and other cations (G. E. Boyed, J. Schubert, et al)
CN-S-1878 X (A-2691)	1944 August 1	Basic fission product solution chemistry: hydrolysis and complex ion formation in solutions of zirconium, columbium, and uranium (Ketelle, G. E. Boyd T. H. Davies)

Reports	Date 1944	Main Topics and Authors
CN-1911 (A-2699)	July 12	Report for month ending July 8, 1944 (N. Sugarman, Section Chief)
CN-1917 (A-2805)	July 12	The ratio of capture to fission in "X" metal (D. W. Engelkemeir, M. Freedman)
CCN-1919 (MUC-NS#312)	March 8	Variation of the amount of backscattering as a function of thickness of backscatterer for β's of several different maximum energies Also variation of saturation amount of backscattering with the atomic number of the backscatterer (D. W. Engelkemeir)
CN-1958 (A-2836)	August 1	Determination of yields of 49 fission products (B. Finkle, E. Hoagland, S. Katcoff, N. Sugarman)
CC-1959 (A-2837)	August 1	Presence of a γ in the 12.5d Ba^{140} (D. W. Engelkemeir)
CC-1993 R-C	1945 Jan. 20	Radiochemistry of the fission products, progress report (N. Sugarman, Section Chief)
CN-1998 CC-R (A-2858)	1944 August 12	Report for month ending August 12, 1944 (N. Sugarman, Section Chief)
CC-2000 R (A-2859)	August 12	Long-lived europium fission isotopes (L. Winsberg)
CC-2009 C-X (A-2870)	August 28	Preparation of carrier free Zr-Cb tracer (J. A. Marinsky, N. Ballou)
CC-2014 R-X	Sept. 4	An improved preparation of carrier-free columbium tracer with manganese dioxide for remote control operations (J. M. Siegel, W. P. Bigler, D. N. Hume)
MUC-NS #230	Sept 12	Standard β and γ absorption curves of the longer lived isotopes (R. P. Metcalf, W. Rubinson, J. Seiler, E. P. Steinberg, L. Winsberg)
CN-2027 SX (A-2878)	Sept 14	Nemographs for the solubility of $BiPO_4$ in HNO_3, HNO_3-H_3PO_4 and HNO_3-Bi[illegible] sol'ns (G. R. Leader, J. A. Swartout)
CC-2076 R	Aug 25	Ranges of U fission recoils as a function of mass number (B. Finkle, E. Hoagland, S. Katcoff, N. Sugarman)

	1944	[redacted]
CN-2126 CC-R	Sept 9	Report for month ending September 9, 1944 (M. Sugarman, Section Chief)
CC-2176 R	Nov 9	Direct calorimetric study of fission product decay in active slugs (R. A. Day, C. V. Cannon)
CC-2187 XR	Nov 2	An investigation of the absorption cross section of Xe^{135} for pile neutrons (N. Elliott, J. D. Knight, T. R. Novey, E. Shapiro)
CN-2195 S-X	Oct 1	Solubility of $PiPO_4$ and uranyl phosphate in UNH solutions (G. R. Leader, Richter)
CN-2196 X	Sept 15	Preparation of radioactive barium-lanthanum (D. S. Webster, et al)
CL-CDC No 5	Dec 22	Standard procedures for the radiochemical assay of barium in the 706-C process (D. N. Hume, C. M. Nelson, W. F. Boldridge)
	1945	
CC-2218 X	Jan 20	The interchange of radioactive iodine with carrier; a procedure for the quantitative separation of radioactive iodine from fission material (L. E. Glendenin, R. P. Metcalf, T. R. Novey)
CC-2219 R-X	Feb 1	Fission yield and decay characteristics of the chain 6.7h I^{135} 9.2h Xe^{135} (L. E. Glendenin, R. Metcalf)
	1944	
CC-2220 G-X	Dec 27	The reaction of lead and barium sulfates with carbon tetrachloride (N. Elliott)
	1945	
CC-2310 R-C	Jan 1	Radiochemistry of the fission products (L. Winsberg, Editor)
		A. Search for long-lived triple fission products
		1. Sulfur (R. P. Metcalf)
		2. Chlorine (J. A. Seiler)
		3. Calcium (E. P. Steinberg)
		4. Scandium (L. Winsberg)
		5. Iron (R. P. Metcalf)
		B. Radiochemistry of the fission products (Germanium to Europium) [redacted]

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Reports	Date	Main Topics and Authors
CC-2310 (cont'd)		1. Germanium and Arsenic a. Short-lived Ge and As Fission activities (E. P. Steinberg, D. W. Engelkemeir) b. Absence of long-lived Ge in fission (L. Winsberg) c. Absence of long-lived As in fission (L. Winsberg) 2. Selenium: Absence in fission of Se isotopes with half-lives greater than 30 minutes (L. Winsberg) 3. Bromine; half-life and β energy of Br^{84} (S. Katcoff) 4. Krypton a. Half-lives of some short-lived Kr activities (C. R. Dillard, R. M. Adams, H. Finkelstein, A. Turkevich) b. Long-lived Kr (E. J. Hoagland, N. Sugarman) 5. Strontium and Yttrium a. Sr^{91} and Y^{91}; Half-lives, radiations, and decay relationships (S. Katcoff, B. Finkle, N. Sugarman) b. Fission yield of 20m Y (C. R. Dillard, R. M. Adams, H. Finkelstein, A. Turkevich) c. Fission yield and radiations of 3.5h $Y^{(92)}$ (E. J. Hoagland, S. Katcoff) 6. Zirconium and Columbium a. Energies of radiation of 17h $Zr^{(97)}$ and 75m $Cb^{(75)}$ (S. Katcoff, B. Finkle) b. Parentage and radiations of 90h $Cb^{(95)}$ (E. P. Steinberg) 7. Molybdenum; β energy of 67h Mo^{99} (S. Katcoff) 8. Ruthenium; Fission yields of 42d Ru^{103} and 1.0y $Ru^{(106)}$ (E. P. Steinberg) 9. Rhodium; Absence of long-lived Rh in fission (J. A. Seiler, L. Winsberg) 10. Palladium and Silver a. Pd and Ag isotopes (13h $Pd^{107,109}$, 21h Pd^{112}, 3.2h Ag^{112}) in fission (J. A. Seiler) b. Absence of long-lived Pd isotopes in fission. (J. A. Seiler)

Reports	Date 1945	Main Topics and Authors
CC-2310(cont'd)		11. Cadmiumm and Indium (R. P. Metcalf) a. 43d Cd^{115}, β energy and fission yield b. 2.33d Cd^{115} and 4.5h In^{115*}: AD radiations and fission yield c. Cd^{117} and In^{117}; half-lives, radiations and fission yield 12. Tin; Sn isotopes ("80m", 62h, 10d) in fission (J. A. Seiler) 13. Antimony; absence of long-lived Sb in fission (J. A. Seiler) 14. Tellurium; fission yield of 30h Te^{131} (S. Katcoff) 15. Iodine; fission yield, half-life, and radiations of X^{135} (S. Katcoff, C. R. Dillard, H. Finkelstein, B. Finkle, J. A. Seiler, N. Sugarman) 16. Xenon a. Half-lives of some short-lived Xe activities (C. R. Dillard, R. M. Adams, H. Finkelstein, A. Turkevich) b. Half-life and radiations of Xe^{133} (D. W. Engelkemeir, N. Sugarman) c. Half-life and β radiations of Xe^{135} (E. J. Hoagland, N. Sugarman) d. Independent yield of 9.2h Xe^{135} in fission (E. J. Hoagland, N. Sugarman) 17. Cesium a. Search for Cs^{135} from I^{135} (B. Finkle, N. Sugarman) b. Search for Cs^{135} from Xe^{135} (D. W. Engelkemeir) c. Identification of Mass Number of "25y" Cs as 137 (A. Turkevich, E. P. Steinberg, N. Sugarman, B. Finkle) 18. Barium; Half-life of Ba^{139} (C. R. Dillard, H. Finkelstein, R. M. Adams, A. Turkevich) 19. Lanthanum a. Independent yield of 40h La^{140} in fission (N. Sugarman) b. Radiations of 3.5h La^{141} (S. Katcoff)

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CC-2310 (cont'd)		20. Cerium and praseodymium a. Search for 140d Ce^{140*} in fission (J. A. Seiler, L. Winsberg) b. Half-life of long-lived $Ce^{(144)}$ (W. H. Burgus) c. Identification of the γ emitter in the long-lived Ce chain as 17m $Pr^{(144)}$ (J. Seiler, L. Winsberg) d. Radiations of 4.5h $Pr^{(145)}$ (S. Katcoff) 21. A long-lived rare earth activity (J. Seiler, L. Winsberg) 22. Europium; Eu activities (60m, 15.4h, 15.4d, 2-3y) in fission (L. Winsberg
CC-2379-R	1944 Nov 16	Report of month ending Nov 15, 1944 (N. Sugarman, Section Chief)
CC-2485 R	Dec 15	Radiochemistry and process studies, Progress report (N. Sugarman, Section Chief)
CC-2570 R-X	1945 Feb 1	The development of standard procedures for the radiochemical assay of barium in the 706 C process (C. M. Nelson, W. F. Boldridge, D. N. Hume)
CC-2580 R-X	Feb 1	Tracer supply (D. N. Hume)
CN-2581 AN-X	Feb 1	Fission product analysis training program (D. N. Hume)
CP-2582 I-X	Feb	A simple method of evaluating coincidence losses in Geiger-Muller Counting Circuits (R. P. Metcalf, E. Hennessee)
CC-2605 R-X	Feb 28	Some activities from tritium bombardment in neutron irradiated lithium salts (J. D. Knight, T. B. Novey, C. V. Cannon, A. Turkevich)
CC-2658 R-C	Feb 16	Summation study A comparison of gross fission product decay with decay of the sum of the separated fission products (W. Rubinson, R. P. Metcalf, J. Seiler, E. P. Steinberg, L. Winsberg)
CC-2739 R-C	Feb 23	Radiochemistry of the fission products, Progress report (N. Sugarman, Section Chief)

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CF-2773 C	March 15	Calorimetric determination of product-power ratio and of fission energy (D. W. Engelkemeir, W. S. Freedman, D. L. Hill, H. L. Anderson)
CC-2775 R-C	March 24	Preliminary spectrometer examination of 90h Cb (J. S. Levinger)
CP-2782 G-C	Feb 15	Thermal neutron cross-section of 9.2h Xe^{135} (N. S. Freedman, R. W. Adams, A. Turkevich, N. Sugarman)
CN-2799 G-C	March 29	Progress report Radiochemistry of the fission products (N. Sugarman, Section Chief)
MUC-WR #340 (AM-1655)	April 20	Methods of radiochemical analysis (Mo, Ru, Cd, Sb, I, Cs, La-Ir, and Sm) (L. Winsberg, editor)
CC-2010 (A-670)	June 7 (CL-DNH-3)	Tables of half thicknesses, ranges and energies for fission product activities (D. N. Black)
CN-2815 An-X	June 30	A manual of the radiochemical determination of fission product activities (D. N. Hume, N. E. Ballou, L. E. Glendenin)
CP-2825 G-X	June 4	A correlation of methods for the determination of absolute neutron flux (T. B. Novey)
CC-2826 R-X	June 1	The radiochemical determination of total antimony tracer activity and differential antimony (III) and antimony (V) activities (W. F. Boldridge, D. N. Hume)
CC-2828 R-X	June226	The preparation of carrier free ruthenium tracer and some observations on the chemistry of plutonium (D. N. Hume)
CC-2829 R-X	June 1	The separation and identification of Nd and element 61 fission activities by specific elution from amberlite resin (J. A. Marinsky, L. E. Glendenin)
CC-2835 R-X	June 15	Zn and Ga activities in uranium fission J. M. Siegel, L. E. Glendenin)

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Report	Date 1945	Main Topics and Authors
CC-2836 R-X	June 30	Special procedures for the isolation of Zn and Ga fission activities (J. M. Siegel, L. E. Glendenin)
CC-2845 R-X	June 30	A study of the separation of cerium by iodate precipitation and the improved radiochemical determination of cerium and rare earth activities (W. F. Boldridge, D. N. Hume)
CC-2891 R-C	April 10	Cross-sections and radiations of some Kr isotopes produced by neutron bombardment of Kr (E. Hoagland, N. Sugarman)
CN-2898 G-C	April 1	The solubility of $LaPO_4$ in HNO_3 solutions (A. Goldstein, E. Motts, W. Rubinson, M. Taylor)
CC-2908 R-C	April 7	The thermal neutron absorption cross-section of 85m Ba^{139} (S. Katcoff)
CN-2929 G-C	April 27	Progress reports Radiochemistry of the fission products (N. Sugarman, Section Chief)
CC-2966 R-C	April 15	The presence of 47h Sm in fission (L. Winsberg)
CC-2998 R-C	June 1	A gas-sweeping apparatus for the large scale collection of fission products on a charged wire (S. Raynor)
CC-3007 R-C	April 15	Independent yield of 9.2h Xe^{135} (E. Hoagland, N. Sugarman)
CP-3050 I-C	March 1	Preliminary experiments on the feasibility of using solid dielectrics as ionizing media in ionization chambers (B. Schloss)
CC-3059 R-C	April 15	The thermal neutron absorption cross section of 55d Sr^{89} (S. Katcoff)
CC-3106 R-C	August 1	The adsorption of xenon on charcoals at room temperature (H. A. Ladd, T. F. Young)

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Report	Date 1945	Main Topics and Authors
CC-3146 R-C	Sept 4	Sweeping of fission gases from solutions of U and plutonium (R. M. Adams, H. Finklestein, W. Rubinson)
CC-3148 R-C	June 1	A new decay chain produced by (n, γ) on Ba: $Ba^{131} \rightarrow Cs^{131} \rightarrow Xe^{131}$ (S. Katcoff) Further studies on the radiations from Ba131 and Cs^{131} (B. Finkle)
CP-3166-G. C.	June 15	Upper limit to absorption cross section of U^{236} (H. Finkelstein, A. Turkevich)
CL-CDC #8	July 16	Fission product chains and fission yields (L. E. Glendenin, J. M. Siegel, C. D. Coryell)
MonP-5 (AM-1643)	August 1	Removal of noble gases from solutions with carrier gases (R. Livingston, E. Shapiro, N. Elliott)
MonN-13	Sept 1	Development of a method for the determination of Np activi y in process solution (J. E. Hudgins, J. E. Sattizahn, F. R. Bruce, M. W. Carlson)
LA-282	May 25	Radioactivity measurements at the 100-ton trial (H. L. Anderson and Group)
LA-282A	June 22	100-ton test: Radiation above the crater after 41 days (H. L. Anderson, H. Heskett, J. Twombly)
LA-290	June 28	100-ton test: Radiochemistry (N. Sugarman and Group)
LA-356	Sept 25	July 16th nuclear explosion, Determination of nuclear efficiency (H. L. Anderson, N. Sugarman and Group)

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M-CN-1285	Feb 15	M-CN-2034	Sept 15
M-CN-1296	Feb 29	M-CN-2177	Oct 31
M-CN-1404	March 15	M-CN-2184	Sept 30

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M-CN-1414	March 31	M-CN-2194	October 15
M-CN-1424	April 15	CSN-1281m	December 27
M-CN-1434	April 30		1945
M-CN-1614	May 15	CN-2586	Feb 15
M-CN-1624	May 31	CN-2596	March 15
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M-CN-1844	July 15	CN-2839X	June 15
M-CN-1854	July 31	MonN-2 (AM-1635)	July 15
M-CN-1884	August 15	MonN-6 (AM-1642)	August 15
M-CN-2016	August 31	MonN-15	September 15

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BM-73 (MS 87)		The loss of energy by fission fragments at high temperatures (G. J. Kynch)
CC-295	Sept 18	Survey of long-lived fission products (B. L. Goldschmidt, I. Perlman)
CP-318	Oct 19	Radiations from radioactive lanthanum (A. G. C. Mitchell, L. M. Langer, L. J. Brown)
CL-697, Chapter III		C Project Handbook C. Spontaneous nuclear reactions D. Uranium fission products (A. Turkevich, Editor)
	1943	
CC-765	June 30	Chemical methods for the separation of the fission products (W. H. Sullivan)
CC-826	July 12	Report on gamma rays of certain fission products (A. C. G. Mitchell, L. J. Brown)
CP-844	Aug 7	Preliminary report activity of thorium fission products (J. Levinger, R. Wilkinson)

Report	Date 1943	Main Topics and Authors
MC-11 (CC)	Aug 14	Search for long-lived fission elements (B. L. Goldschmidt, F. Morgan)
BM-691 (BR-447)	Sept 26	The range of the fission fragments of U^{235} in uranium oxide and in gold (B. B. Kinsky, B. A. Nahum)
CP-1156 (A-1671)	1944 Jan 4	Preparation of primary β-ray standards (J. H. Roberts)
CC-1380 (A-2021)	Feb 25	A low absorption counter of improved design (W. H. Sullivan, N. R. Sleight, E. M. Gladrow)
CH-1460 (A-2050)	Feb 15	Metabolism of fission products A. Preparation of radioactive materials Preparation of Pr, Ba, Cs, And Cb (J. Hamilton)
LA-64	Feb 29	Stopping power of various substances for fission fragments (C. Wiegand, E. Segre)
CC-1493 (A-2076)	March 8	Radioactivities of ruthenium and rhodium (W. H. Sullivan, N. R. Sleight, E. M. Gladrow)
CN-1540 (A-2206)	March 27	Discovery of Element 95 (and/or 96) (H. W. Crandall, J. W. Gofman, W. H. Reas)
M-CC-1602 (M-626)	March 1944	A manual on the measurement of radioactivity (A. H. Jaffey, T. P. Kohman, J. Crawford)
BM-429 (MC-58)	April	Branching ratios of barium 139 and 140 produced in neutron fission of uranium (W. E. Grummitt, J. Gueron, G. Wilkinson, L. Yaffe)
CN-1615 (A-2293)	May 15	Activities in the off gas from the metal solution step (W. R. Kanne, G. M. Branch)
M-CC-1776 (A-2605)	July 10	Radiations associated with the 330 day Ru → 30ssecond Ru decay chain (N. R. Sleight
CN-1840 (A-2669)	June 26	Comparison of fission products of plutonium and uranium arising from slow neutron irradiation (J. E. Brolley)

Report	Date 1944	Main Topics and Authors
CN-1860 (A-2673)	July 6	Abstracts of analytical methods appearing in the classified reports (H. C. Andrews)
CP-1903 (A-2668)	July 6	Forty-three day $_{48}Cd^{115}$ (L. Seren, D. W. Engelkemeir, W. Sturm)
Addendum to CP-1903		Presence of ~0.5 Mev γ in $_{48}Cd^{115}$ (L. Seren, H. N. Friedlander, S. H. Turkel)
CP-1954 (A-2833)	July 29	Report for month ending July 29, 1944 Physics Research (E. P. Wigner)
CP-1967 (A-2644)	July 29	Chemical isolation of two of the delayed neutron activities (J. S. Levinger, E. P. Meiners, M. B. Sampson, A. H. Snell, R. G. Wilkinson)
CN-2044 GX (A-2884)	October 3	The power-product and capture-fission ratios in X-metal (L. Perlman)
CP-2090	Aug 28	Physics Research report for month ending August 28, 1944 (E. P. Wigner)
M-CN-2096 R	August 30	Guide to project information (J. Howe, Goldsmith, E. Mapp, Froula, Cortelyou, Quill, Mulliken)
CP-2122 G	August 5	Positive ion emission from fission element oxides (L. G. Lewis, W. M. Garrison, D. King, R. J. Hayden)
CP-2160 G	Sept 23	Report for month ending Sept 23, 1944- physics (E. P. Wigner)
CP-2192 XG	Nov 8	Pile poisoning due to short lived fission products (Borst, Jones, Nordheim, Slotin, Soodak)
M-CP-2203 G	Nov 30	Monthly report for the period ending Nov 30, 1944 Physics Section (A. H. Snell, L. W. Nordheim, E. O. Wollan, ---Section Chiefs)
LAMS-142	Oct 7	Energy of the hard gamma rays of La^{140} (M. Deutsch)
CP-2283 H	Oct 23	Beta-ray spectra of some fission activities (W. W. Wedzel)

Report	Date 1944	Main Topics and Authors
CC-2299 R	Oct 24	Fast neutron induced activities in Cb (V. A. Nedzel, Brown, E. Meiners)
CP-2301 G	Oct 28	Report for the month ending Oct 28, 1944 Argonne Laboratory (E. Fermi, Laboratory Director)
CK-2318 P	Nov 4	An investigation of the delayed neutron decay curves resulting from uranium and polutonium fission (C. Redman, D. Saxon)
CC-2345	Dec ?	Cb isotopes from Zr and Mo (L. Jacobson, R. Overstreet)
CP-2376 G	Nov 21	Slow neutron activation cross-sections (L. Seren, H. N. Friedlander, S. H. Turkel)
CC-2409	Oct 28	Activities of Cs and Xe (M. Camao)
A-670	Dec 1	Some chemical problems associated with the operation of homogeneous breeder and converter piles (H. S. Brown, Asst Division Director)
CP-2468 G-C	Dec 15	Fission product poisoning in a pile (Katherine Way)
	1945	
CN-2563 S-X	Feb 1	The extraction, concentration and decontamination of Ba^{140} from uranyl nitrate solutions by and adsorption process (J. Schubert, J. W. Richter, R. A. Duckett, W. E. Coh, E. R. Tompkins, J. X. Khym, S. Weiss, J. Teresi)
CP-2569 G-X	Feb 15	Magnetic lens beta ray spectrometer (R. Wilkinson, W. Rall)
CN-2583 S-X	Feb 15	An alternate procedure for the separation of lead from barium based on ion exchange adsorption. The lead-barium, lead-lanthanum equilibrium in amberlite IR-I (J. Schubert)
CP-2590 G-X	Feb 15	The beta and gamma energies of several radioactive isotopes (R. Wilkinson, W. Rall)
CP-2600 G-X	March 28	Xenon 135 (L. A. Pardue, C. D. Moak, P. W. Levy, E. O. Wollan, E. Meiners)

Report	Date 1945	Main Topics and Authors
CC-2626 R	Jan 3	Transference and adsorption on glass of carrier free zirconium (H. W. Dodgen, G. K. Rollefson)
BM-1120 (MS-128	March 29	Isotopic abundances of fission product xenon and some relative branching chain ratios for U^{235} fission (H. G. Thode, R. L. Graham)
LA-253	April 7	Short-period delayed gammas from fission of 25 (J. A. Hofmann, P. B. Moon)
BM-1149 (MX-129)	April 10	A further mass spectrometer investigation of fission product xenon and fission product krypton (H. G. Thode, R. L. Graham)
CC-2720 G-I	May 9	Preliminary report on a rapid method for separating rare earths (F. H. Spedding, N. R. Sleight, E. M. Gladrow, A. F. Voight)
CF-2796 C	March 15	Report for month ending March 15, 1945 Physics Division (A. J. Dempster, Division Director)
BM-1248 (MC-127)	May 1	Interim report on the krypton and xenon arising from fission (W. J. Arrol, K. F. Chackett, S. Epstein)
CP-2805 G-X	May 5	Dependence of xenon capture cross section on neutron temperature (E. O. Wollan, L. A. Pardue)
CN-2827 S-X	June 1	The separation and purification of carrier-free fission products, including individual rare earths, by specific elution from amberlite resin (Tompkins, Khym, Parker, Weiss, Cohn, Ballantine, Ross, Vanneman)
CN-2833 G-X	June 16	Development of Szilard-Chalmers methods for preparing carrier-free tracers: Studies on U^{237} (Stanley, A. Adamson, Leslie)
CF-2926	April 15	Report for month ending April 15, 1945 Physics Division (A. J. Dempster, Division Director)

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Report	Date 1945	Main Topics and Authors
CP-2927 G-C	April 27	A mass spectrograph for the analysis of fission product mixtures (L. G. Lewis, R. J. Hayden)
CP-2928 G-C	April 27	Direct mass assignments of 55 day strontium and 57 day yttrium (L. G. Lewis, H. J. Hayden)
CP-2984 G-C	April 25	Report for period ending April 25, 1945 Argonne Laboratory (W. H. Zinn, Asst Laboratory Director)
CP-3028 G-C	May	Report for month of May, 1945 Physics Division (A. J. Dempster, Division Director)
CC-3032 R-C	June 13	Summary and correlation of data on the rate of decay of fission products (E. P. Wigner, K. Way)
CF-3070 G-C	June	Report for month of June, 1945 Physics Division (A. J. Dempster, Division Director)
CP-3094 G-C	July 30	Delayed neutrons from fission of 25 (D. J. Hughes, J. Dabbs, A. Cahn)
CP-3102 G	June 30	Beta and gamma ray spectra (L. C. Miller, L. F. Curtis)
CP-3147 G-C	Sept 19	Delayed neutrons from fission of 23 (A. Cahn, Jr., J. W. T. Dabbs, Jr., D. J. Hughes)
CP-3221 G-C	September	Report for month of September, 1945 (Physics and Metallurgy Division (A. J. Dempster, Division Director)
MonC-10	Sept 1	Preparation of carrier-free 10.2d Cs^{131} (B. J. Finkle, W. E. Cohn)
MonC-11	Sept 1	Preparation of carrier free 13.8d Pr^{143} (B. J. Finkle, W. E. Cohn)
LA-427	Oct 17	Range of 25 fission frangements in pphototraphic emulsion fragments in (H. T. Richards, T/4 Lyda Speck)

Report	Date 1945	Main Topics and Authors
CP-3295 C-C	Oct 22	Mass spectrographic identification of active isotopes contained in three fission product mixtures (L. G. Lewis, R. J. Hayden)
CN-3328 C-C	Nov 2	Techniques for the preparation of thin films of radioactive material (D. L. Hufford, D. F. Scott)

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B. Subject Index

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