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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 DECEMBER 1 - 15, 1958

December 16, 1958

Printed for the U. S. Atomic Energy Commission

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INFORMATION DIVISION DURING THE PERIOD OF DECEMBER 1 - 15, 1958

Lawrence Radiation Laboratory
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Berkeley, California

December 16, 1958

Number	Title	Author	Date
	BIOSCIENCES		
[illegible]-READING [illegible]ST-1	Long Range Fallout of Radioactive Materials from Nuclear Explosions. A Selected Reading List.	B. J. Wilson, Comp.	1-58
[illegible]L-5916	Biological and Medical Research Division. Semiannual Report [for] January Through June, 1958.		9-58
[illegible]-758	Water Distribution in Rabbits Undergoing Experimental Hypothermia. An Experimental Study with Radiosodium and Labelled Water. Reprinted from Revue Française d'Etudes Clinques et Biologiques 2, 782-8 (1957). (In French.)	F. Morel, A. Aeberhardt France. Commissariat à l'Énergie Atomique, Paris	1958
[illegible]0-212(Rev.)	Health and Safety Considerations from Uranium Fuel Fabrication Facilities.	W. A. Brobst	8-1-58
[illegible]-55[illegible]17	Strontium-90 Concentrations in the Hanford Environs.	W. B. Silker	5-20-58
[illegible]-55843	Investigation of Kodak Personal Monitoring Film Type 2 for Potential Use at H.A.P.O.	W. V. Baumgartner	4-24-58
[illegible]W-56128	An Aural Alpha-Beta-Gamma Monitor.	W. G. Spear, G. D. Crouch	6-1-58
[illegible]-57399	Surface Dose Rate Measurements.	J. F. Evans	9-9-58

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-2243	Experimentally Determined Characteristics of IPC Filters and Supports.	E. G. Reid	11-21-58
70X8	Quarterly Progress Report No. 29.	Chicago. Univ. Air Force Radiation Lab.	10-15-58
0-2061	Effect of Glucose and Various Nucleosides on Purine Synthesis by Ehrlich Ascites Tumor Cells in Vitro.	H. Harrington Western Res. Univ., Cleveland. Atomic Energy Med. Res. Project	10-31-58
C-4753(Suppl.3)	Annotated Bibliography on Long Range Effects of Fallout From Nuclear Explosions.	A. G. Hoard	10-58
IRL-78-58	Seventh International Cancer Congress.	J. A. O'Donoghue Office of Naval Res., London	10-31-58
CRINS-24	The Tsuyatscan.	A. Tsuya, M. Brucer	10-58
PR-B-39	Biology and Health Physics Division. Progress Report [for] July 1, to September 30, 1958.	Atomic Energy of Canada Ltd., Chalk River Project, Chalk River, Ont.	n.d.
D-3514	Radioisotopes in Medicine and Human Physiology. A Selected List of References.	J. A. McCormick	8-58
SNRDL-TR-275	Observations on the Oxidation of Methionine-S^{35} to $S^{35}O_4$ and Taurine-S^{35} in the X-Irradiated Rat.	R. E. Kay, C. Entenman	10-21-58

CHEMISTRY

ECU-3675	Reactions of Titanium with Water and Aqueous Solutions. Quarterly Report No. 4 (Report No. 11) [for] December 16, 1957 - March 15, 1956.	F. D. Littman, F. M. Church Stanford Res. Inst., Menlo Park, Calif.	3-15-58

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CU-3685	Progress Report No. 51 [for] the Period September 1, 1957 Through November 30, 1957.	Mass. Inst. of Tech., Cambridge. Lab. for Nuclear Science	n.d.
CU-3687	Polarography. Report No. 33.	C. L. Rulfs, P. J. Elving Mich. Univ., Ann Arbor	4-25-58
CU-3689	Crud Pick-Up by Mixed Bed Ion Exchange.	W. Dominik Nat'l Aluminate Corp., Chicago	4-19-56
ECU-3887	Nuclear Chemical Research Radiochemical Separations and Activation Analysis. Progress Report 7 [for] November 1957 - October, 1958.	Michigan. Univ., Ann Arbor	11-1-58
COO-1017	Electrostatic Effects in the Deposition of Aerosols on Cylindrical Shapes. Technical Report No. 15. (Thesis.)	G. S. Dawkins Illinois. Univ., Urbana. Eng. Exper. Sta.	3-15-58
HW-28867	Back-Mixing in Pulse Columns with Particular Reference to Scale-Up.	W. H. Swift, L. L. Burger	7-20-53
HW-56090	Interim Report No. 1 on the Turco 4501 Process for the Decontamination of Carbon Steel.	L. D. Perrigo, Jr.	5-15-58
HW-57400	Preliminary Investigation of Isopropylated Terphenyl - A Potential Reactor Coolant.	D. R. de Halas	9-9-58
DO-14372(Del.)	Evaluation of ICPP for Detroit-Edison Company FBR II Fuel Processing.	H. Schneider Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	10-18-54
DO-14439	Fission Product Ruthenium Volatility in a High Temperature Process.	C. E. May, B. J. Newby, K. L. Rohde, et al. Same	7-1-58

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C-24440	Leaching of Fission Products from Calcined Process Waste.	M. E. McLain, D. W. Rhodes Phillips Pet. Co. Atomic Energy Div., Idaho Falls, Idaho	4-30-58
O-24455	Preliminary X-Ray Investigations of the Hydrates of Zirconium Tetrafluoride.	R. L. Wells, Same	11-18-58
C-182(Del.)	Liquid-Liquid Extract or Hafnium from Zirconium by Tributyl Phosphate.	G. H. Beyer, H. C. Peterson Ames Lab., Ames, Iowa	12-3-51
SC-475(Del.)	The Separation of Isotopes by Ion-Exchange.	F. H. Spedding, J. E. Powell, H. J. Svec, et al. Same	4-7-57
SC-896	Modification of a Counting Device for the Weissenberg Camera.	D. T. Peterson, C. L. Vold Same	(8-29-53)
PL-M-FFM-2	Enrichment of Dysprosium 164.	F. F. Mikus	4-8-58
PL-M-GLC-2	The Universal Precision Dilatometer.	G. L. Cutler	4-23-58
PL-M-LJK-1	Investigation of the Structure of Ammonium Uranyl Cupferrate $NH_4[UO_2(C_6H_5N_2O_2)]$.	L. J. Kats	9-57
PL-M-SMS-21	A S3G/S4G Project Development and Testing of a Hot Crud Filter and Filtrate Sampling Unit.	W. F. Mathewson	3-27-56
PL-M-VFC-2	Determination of Mercury in Solids from S3G/S4G Main Coolant Pump.	V. F. Consalvo	6-11-58
PL-M-VFC-3	Residual VPI 220 in Reactor Steam Generators.	V. F. Consalvo, E. L. Shirley	6-19-58

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-2160 UNM	The Exchange Reaction Between Substituted Benzyl Iodides and Potassium Iodide. X. m-Chlorobenzyl Iodide.	M. Kahn, J. L. Riebsomer, R. N. Castle New Mexico. Univ., Albuquerque. and Los Alamos Scientific Lab., N. Mex.	11-25-58
-2229	Plating of Beryllium-Copper Componenets for Electrical Applications (Gold and Silver).	J. J. Glass, J. K. Gore, J. M. Taub	11-25-58
SC-1958-473	Organic Film Scintillators. (In Russian.)	L. Ia Zhil'tsova, M. N. Medvedev Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Vysokikh Energii, Moscow	1957
onograph 3100	Hydrothermal Synthesis of Sapphire. Reprinted from American Chemical Society, Washington, D. C. Journal 80, 2655-7 (1958).	R. A. Laudise, A. A. Ballman Bell Tel. Labs., Inc. N.Y.	10-58
onograph 3104	Sealing Glass to Sapphire. Reprinted from Review of Scientific Instruments 29, 324-6 (1958).	L. S. Nelson, G. P. Spindler Same	10-58
onograph 3107	Electropolishing Silicon in Hydrofluoric Acid Solutions. Reprinted from Electrochemical Society, New York. Journal 105, 402-8 (1958).	D. R. Turner Same	10-58
onograph 3108	High Q Quartz Crystals at Low Temperatures. Reprinted from Journal of Applied Physics 29, 856-7 (1958).	D. L. White Same	10-58
30-747	The Recovery of Magnesium and HF From Magnesium Fluoride. A Literature Search.	E. W. Mautz	11-26-58
30-753	Measurement of Dispersion and Coalescence (Disengaging) Time. A Literature Search.	S. Zakanycz	11-26-58

[illegible]-755	Magnesium Sulfate Chemistry and Technology. A Literature Search.	E. W. Moutz	11-26-58
[illegible]-2396	Guide to the Phase Diagrams of the Fluoride Systems.	J. E. Ricci	12-3-58
[illegible]-2490	Development of the Excer Process. IV. Chloride System.	I. R. Higgins, W. J. Neill, L. E. McNeese	12-3-58
[illegible]-2613	Methods of Remotely Removing the Bed from a Sand Filter.	C. O. Thornburg	12-3-58
[illegible]-2615	The Recovery of Uranium from Sulfate Solutions by Solvent Extraction with Tributyl Phosphate.	J. R. Flanary, J. H. Goode	12-3-58
[illegible]-2627	The Use of Tri-n-Octylphosphine Oxide in the Solvent Extraction of Thorium from Acidic Solutions.	W. J. Ross, J. C. White	11-20-58
[illegible]-54	A Castable Polyurethane.	A. J. Quant Sandia Corp., Albuquerque, N. Mex.	10-58
[illegible]SNRDL-TR-276	The Effects of "Protective" Additives on Irradiated Aqueous Gel Systems.	L. H. Gevantman, J. F. Pestaner	10-10-58
[illegible]IN-83	Alkaline Leach Resin-in-Pulp Pilot Plant Testing of Monument Valley Ore.	W. D. Charles, R. L. Shimmin	6-1-58
[illegible]N-100	Continuous Countercurrent Solvent Leaching.	P. Galvanek, Jr.	7-16-58

ENGINEERING

[illegible]CU-3643(Pt. II)	Transient Thermal Stresses in Pressure Vessels. Part II. Thermal Stress Calculation.	J. P. DeVries, R. C. Nicoll Westinghouse Elec. Corp. Bettis Plant, Pittsburgh, Pa.	4-50-58

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[illegible]-3694	Steady State Performance of a Thermal Circulation Loop Containing a Parallel Path Heat Sink.	J. J. Foster Knolls Atomic Power Lab., Schenectady, N. Y.	1-31-58
[illegible]-3695	Materials Manual.	Westinghouse Elec. Corp. Bettis Plant, Pittsburgh	5-57
[illegible]-3698	Sodium Boiling Calculations.	R. B. Nicholson Atomic Power Dev. Assoc., Inc. Detroit	7-2-57
[illegible]-3699	Sodium Boiling - Explanation of Section IV.4 of my July 2, 1957 Memorandum on "Sodium Boiling Calculations."	R. B. Nickolson Atomic Power Dev. Assoc., Inc. Detroit	10-1-57
[illegible]EX-357	Estimated Radiation Stability of Aircraft Components.	C. G. Collins, W. J. Stapp, R. C. Fries, et al.	11-14-58
[illegible]EX-425	Heat Transfer Source File Data.	N. E. Lapides, M. B. Goldstein	11-58
[illegible]EX-435	Technical Information Engineering System.	R. L. Allen, K. D. Brown, J. B. Crabbe, et al.	11-28-58
[illegible]-304	An Instrument for Indicating Mercury Level Inside Thick-Walled Steel Pipe.	T. R. Herold	8-58
[illegible]213	Development Work with High-Density Concrete Performed in 1952 at Hanford Atomic Products Operation.	H. S. Davis	3-23-54
[illegible]-55722	Study of KAPL-120 Loop Relative to ASA and ASME Code Requirements.	F. E. Dearing, Jr., J. E. Hanson	4-25-58
[illegible]-56960	Studies in Heat Exchangers Cooled by Raw Columbia River Water.	D. R. Doman, K. D. Hayden	8-1-58

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[illegible]075	Effects of Elastic and Plastic Deformation on the Properties of Superconductors.	C. A. Swenson Ames Lab., Ames, Iowa	9-19-58
[illegible]375	Rankine and Absorption Power Cycles. A Selection of Fluids for Operation Between Given Temperature Levels.	A. A. Brooks, A. S. Berman Oak Ridge Gaseous Diffusion Plant, Tenn.	11-20-58
[illegible]PL M-RE-418-A	Test Data Report on 36 - Ribbon Cold Water Pressure Drop - Test No. 418 A.	G. R. Pflasterer	6-4-56
[illegible]PL-M-S3G-RES-54	Large Scale Ribbon Mass Transfer Test.	R. Ostrowski	3-24-58
[illegible]SO-1958-463	Report on the Measurement of Thermal Diffusivity Using a Solar Furnace.	C. J. Kevane Arizona State Coll., Tempe	6-58
[illegible]S-6018	A Literature Survey of Bearings, Friction, Wear, and Lubrication Pertinent to Cryogenic Applications. Technical Memorandum No. 59 on Research and Development.	P. L. Barrick, J. A. Brennan, D. B. Chelton, et al.	10-23-58
[illegible]R-ES-19	Engineering Services Division. Progress Report [for] July 1, to September 30, 1958.	Atomic Energy of Canada Ltd. Chalk River Project, Chalk River, Ont.	n.d.

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[illegible]BCU-3669	Metallographic Investigation of Commercial Zircaloy Alloys. Final Report [for] July 1, 1957 - December 31, 1957.	F. C. Perkins Denver Univ. Denver Res. Inst.	n.d.
[illegible]CU-3674	Oxidation of Uranium Dioxide. Research Report No. 100FF942-R2 (Revised).	P. E. Blackburn, J. Weissbart, E. A. Gulbransen Westinghouse Elec. Corp. Res. Lab., [East] Pittsburgh, Pa.	8-2-57

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[illegible]-672	The System Zirconium-Iron-Tin. Status Report No. 4 [for] July 1, 1957 - March 31, 1958.	L. E. Tanner Ill. Inst. of Tech., Chicago. Armour Res. Foundation	4-24-58
[illegible]-3693	Evaluation of Mechanical and Physical Properties of Annealed Hafnium. Research Report 100FF1005-R1.	E. T. Wessel Westinhouse Elec. Corp. Res. Lab., East Pittsburgh, Pa.	3-20-56
[illegible]-READING LIST-4	Metallurgical Aspects of Atomic Energy. A Selected Reading List.	P. J. Jones, G. L. Cooper	6-58
[illegible]-5797	Metallurgy Division. Quarterly Report [for] July, August, and September, 1957.		10-58
[illegible]-1296	Niobium Carbide Coating of Graphite Tubes.	J. M. Blocher, Jr., M. F. Browning, D. P. Leiter, Jr., et al.	10-6-58
[illegible]-1297	Coating of Uranium Dioxide Powders with Metallic Tungsten Films.	J. H. Oxley, J. F. Hannah, J. M. Blocher, Jr., etal.	10-8-58
[illegible]-1298	Constitution, Metallurgy, and Oxidation Resistance of Iron-Chromium-Aluminum Alloys.	W. Chubb, S. Alfant, A. A. Bauer, et al.	10-16-58
[illegible]-43085	Corrosion of Aluminum in Tap Water.	C. Groot, V. H. Troutner	6-6-56
[illegible]-50610(Suppl.A)	Automation of a Cobalt^{60} Radiography System for Cored Reactor Fuel Element Quality Inspection.	C. E. Huck	7-1-58
[illegible] 53333	Interim Report on the Corrosion of Aluminum and Stainless Steel by Turco 4306-B Cleaner.	B. Griggs	10-31-57
[illegible]-53637	PRPR Process Tube and Gas Seal Components. Interim Report.	P. A. Scott, ed.	11-18-57

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5:639	The Diffusion of Xenon in Silver.	J. M. Tobin	10-1-58
-54879	Stress, Crevice, Galvanic, and Uniform Corrosion of Austenitic Stainless Steels and Carbon Steel in High Temperature Boiler Feed Water: A Literature Review.	R. B. Richman	2-6-58
55905-A2	Plutonium Recycle Program Monthly Report (for) April 1958.	F. W. Albaugh, L. P. Bupp, P. F. Gast, et al.	5-15-58
56152	Melting Point Determination for Aluminum Alloys A-1, A-2, C-1, and C-2.	J. C. Tverberg, J. E. Flinn, Jr.	5-26-58
1-56185-A2	Plutonium Recycle Program Monthly Report (for) May 1958.	F. W. Albaugh, L. P. Bupp, P. F. Gast, et al.	6-15-58
1-57130	The Tensile Properties of Pure Plutonium.	H. R. Gardner, J. M. Jefferes	8-6-58
1-57207	Fractography of Some Reactor Fuel Materials.	T. K. Bierlein, B. Mastel.	8-15-58
3C-771	Hazards Associated with Thorium Metallurgy.	A. F. Voigt, Ames Lab., Ames, Iowa	(1957)
PL-952(Del.)	Research on Corrosion Resistant Coatings for Uranium. Interim Report Covering the Period February 1952 to February 1953.	C. E. Lacy, A. P. Beard, C. J. Beck, et al.	n.d.
PL-A-SCM-1	Manual of Methods for Cleaning Metals.	H. Suss	6-1-56
PL-M-CTU-10	Radioactive Accessibility Report (for) March and April, 1954.	W. W. Kendall	nd.
PL-M-EDL-32	Life Tests: Nichrome Pipe Heating Cable.	C. D. Best	4-15-53
PL-M-FWW-3 Rev. 1)	Creep Studies of ASTM A-302 Grade B Fire Box Steel at 600, 700, 800°F.	F. W. Wiesinger	5-19-58

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PL-M-GEG-11	Results of Stress Corrosion Tests of Type 347 Stainless Steel in 500°F pH 10-11 Lithium Hydroxide.	G. E. Galonian	5-2-58
PL-M-HOS-4	Chromium Plating for Protection Against Stress Corrosion Cracking of Hardened AISI 410 Steel.	H. Suss	4-22-58
PL-M-JMG-9	Brazing of Zircaloy 3 for Temperature Instrumented Probes.	J. M. Gerken	5-1-57
PL-M-KM-1	A New Technique for Polishing and Etching Zircaloy III and U - Zr Alloys.	K. Minassian	4-3-58
PL-M-RLM-15	Thermal Expansion of Zircaloy-2 Between Room Temperature and 1000°C.	R. L. Mehan, G. L. Cutler	5-16-58
SC-1958-460	I. Solid Solution Strengthening. II. Ductility and Creep-Rupture Properties of Nickel. III. Resistivity Changes During Creep of Aluminum Alloy. IV. An Investigation of High Temperature Behavior of Austenitic Stainless Steel. Periodic Status Report No. 25 [for] August 1, 1958 - October 31, 1958.	L. Rubin, M. Yim, C. Stein, et al. Mass. Inst. of Tech., Cambridge. Dept. of Metallurgy	n.d.
SC-1958-475	I. Solute Strengthening of Nickel Alloys at Elevated Temperatures. II. Fine Slip Investigation in Polycrystalline Aluminum and Aluminum Alloys. III. Resistivity Changes During Creep of Aluminum Alloys. IV. Ductility and Creep-Rupture Properties of Nickel. Periodic Status Report No. 24 [for] May 1, 1958 - July 31, 1958.	R. Pelloux, L. Rubin, C. Stein, et al. Same	n.d.
A-SR-2704	Aluminum-Electrocladding Studies for Proposed OMR Fuel Elements.	G. V. Alm, M. H. Binstock	10-1-58
CO-754	The Preparation of Magnesium Metal. A Literature Search.	E. W. Mauts	11-26-58
NL-2402	High-Temperature Mechanical Properties of Hastelloy B and Hastelloy W.	C. R. Kennedy, D. A. Douglas	11-28-58

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CRNL-2406	The Recrystallization and Grain Growth of Inconel.	D. A. Douglas, J. R. Weir	11-20-58
CRNL-2635	Deformation Textures in Uranium-Aluminum Alloys. (M. S. Thesis.)	W. C. Thurber	11-20-58
LPD-TM-141	Pickling of the Zircaloys Prior to Corrosion Exposure.	S. Kass, D. J. Fontanese, A. E. Oaks, et al.	9-58

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AEC-tr-3352	Theory of Stability of Motion, by I. G. Malkin. Trans. from a publication of the State Publishing House of Technical-Theoretical Literature, Moscow-Leningrad, 1952.		
AECU-3220	Emission Rate of Fission Products from a Hole in the Cladding of a Reactor Fuel Element. [Report] 412RR124.	C. W. Helstrom [Westinghouse Elec. Corp. Res. Lab., East Pittsburgh, Pa]	7-26-56
AECU-3635(2nd.Ed.)	On the Design of a Very High-Speed Computer. Report No. 80.	D. B. Gillies, R. E. Meagher, D. E. Muller, et al. Ill. Univ., Urbana. Digital Computer Lab.	10-57
AECU-3668	A Study of Parallel One's Complement Arithmetic Units with Separate Carry or Borrow Storage (Thesis). Report No. 81.	G. Metze Ill. Univ., Urbana Digital Computer Lab.	11-11-57
AECU-3690	Stopping Cross Sections. Annual Report for the Period March 16, 1957.- March 15, 1958. (Report No. 8.)	J. C. Harris Ohio State Univ. Res. Foundation, Columbus, Ohio	3-28-58
AECU-3691	The S_n Method and the SNG and SNK Codes.	B. G. Carlson Los Alamos Scientific Lab., N. Mex.	1-26-58

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AECU-3696	Research in Nuclear Physics. Progress Report No. 8.	Purdue Res. Foundation, LaFayette, Ind.	6-15-58
AECU-3702	New Developments in the Theory of Pressure Broadening.	M. Baranger Rand Corp., Santa Monica, Calif.	2-19-58
AECU-3703	Free-Free Gaunt Factors.	W. J. Karzas, R. Latter Same	11-8-57
AECU-3707	Annual Progress Report for Year Ending March, 1958.	Minn. Univ., Minneapolis Linear Accelerator Lab.	
AERE-READING LIST-5	A Selected Reading List on Controlled Thermonuclear Reactions.	C. S. Sabel, comp.	8-58
AFCRC-TR-58-241	Observations on Heavy Primary Cosmic Ray Nuclei Above the Atmosphere. Geophysical Research Papers No. 60.	H. Yagoda Air Force Cambridge Res. Center, (Mass.)	7-58
APEX-432	Shadow Shields and Scattered Gamma Radiation. (M. S. Thesis.)	R. E. Baker	11-19-58
CERN-58-21	Numerical Values of Interference Bremsstrahlung from Copper and Silicon Crystals.	H. Überall	9-58
CERN-58-25	Magnetic Quadrupole Lenses. (In French.)	P. Grivet, A. Septier	10-15-58
COO-248	The Velocity of Sound in a Liquid Containing Gas Bubbles.	H. B. Karplus Ill. Inst. of Tech., Chicago. Armour Res. Foundation	6-11-58
CP-1249(Rev.)	General Physics Research Report for Period Ending January 22, 1944. Part I.	Chicago. Univ. Metallurgical Lab.	1-28-44

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CREL-769	Transistorized Counting Systems. 3. Timing Unit for Use in Timesorters.	T. K. Alexander Atomic Energy of Canada Ltd., Chalk River Project, Chalk River, Ont.	9-58
EW-57293	Double Moderator Neutron Dosimeter.	J. DePangher	7-15-58
NSJ-13	Analysis of a High Energy Nuclear Interaction in Emulsion Chamber.	S. Hasegawa Tokyo Univ., Inst. for Nuclear Study	11-1-58
KAPL-1611(Del.)	Report of the Physics Section for June, July, August, 1956.		n.d.
KAPL-1886	The Multigroup Diffusion Equations of Reactor Physics.	G. J. Habetler, M. A. Martino	7-28-58
KAPL-M-ELW-7	Multigroup Reactivity Bounds.	E. L. Wachspress	5-9-58
KAPL-M-JA-1	Topsy, A 2-Dimensional Multi-Group Program for the Univac Operating Instructions.	J. A. Archibald, Jr.	7-19-56
KAPL-M-JS-3	Variational Calculation of Thermal-Average Cross Sections.	J. C. Stewart, N. C. Francis, T. J. Krieger	6-12-58
KAPL-M-LAB-1	Nuclear Data Used in Multigroup Calculations at KAPL March, 1952 to September, 1953.	L. A. Barger	12-28-58
KAPL-M-WS-2	Comparison of the Wigner Wilkins Thermal Spectra With the Measured Spectra in Hot and Cold Water and Hot and Cold Fuel-Metal-Water Matrices.	W. Skolnik	4-15-58
LA-2237	Gamma-Ray Absorption Coefficients for Elements 1 Through 100 Derived from the Theoretical Values of the National Bureau of Standards.	E. Storm, E. Gilbert, H. Israel	11-18-58

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MISC-1958-423	Investigation of π^--Meson Depolarization in Liquid Hydrogen. (In Russian.)	A. E. Ignatenko, L. B. Egorov, B. Khalupa, et al. Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Iadernykh Problem, Moscow	1958
MISC-1958-431	Polarization Effects in the Reaction $p + p \rightarrow d + \pi^+$ with a Consideration of the s-, p-, and d- States of the π-Meson. (In Russian.)	L. M. Soroko Same	1958
MISC-1958-444	On the Unified Field Theory. Is there always "Duality" of Waves and Particles? (In English.)	D. I. Blokhintsev Ob"edinennyi Institut Iadernykh Issledovanii, (Moscow)	[1958?]
MISC-1958-446	On the Elastic Scattering of Low Energy K^- on Protons.	D. Amati, E. Galzenati, B. Vitale Roma. Università. Istituto di Fisica and Italy. Istituto Nazionale di Fisica Nucleare, Sezione di Roma and Naples. Università. Istituto di Fizica Teorica.	11-58
MISC-1958-447	Coupling Network Design Using Discrete-Frequency Data. Technical Report No. 45.	P. A. Ligomenides Stanford Univ., Calif. Stanford Electronics Labs.	10-22-58
MISC-1958-448	On the Determination of the Parity of Hyperons and K-Mesons. (In English.)	S. M. Bilen'kii, R. M. Ryndin Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Teoreticheskoi Fiziki, Moscow	1958

ITSC-1958-449	The Simulating of Multiple Production Process. (In English.)	G. I. Kopylov Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Teoreticheskoi Fiziki, Moscow	1958
ITSC-1958-450	On Proof of Dispersion Relations for Inelastic Scattering. (In English.)	A. A. Logunov, I. T. Todorov Same	1958
ITSC-1958-451	Extended Invariance Properties of Quantum Fields. I. Lagranian Formalism. (In English.)	M. E. Mayer Same	1958
ITSC-1958-452	Properties of Charge Symmetry and Representations of the Extended Lorentz Group in the Theory of Elementary Particles. (In English.)	V. I. Ogievetskii, C. Kuang-chao Same	1958
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ITSC-1958-454	Electron -Positron Pairs Produced in the Decay $\pi^0 \Rightarrow e^- + e^+ + \gamma$. (In English.)	Iu. A. Budagov, S. Victor, V. P. Dzhelepov, et al. Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Iadernykh Problem, Moscow	1958
ITSC-1958-455	On Estimation of Contribution of Nucleon-Antinucleon Interaction to Dispersion Relation for Nucleon-Nucleon Scattering. (In English.)	L. I. Lapidus Same	1958
ITSC-1958-456	On Verification of Interaction Invariance Under Time Reversal. (In English.)	L. I. Lapidus Same	1958
ITSC-1958-457	Fission of U^{238} Nuclei with α-Mesons. (In English.)	A. K. Mihul, M. G. Petrashku Same	1958

SC-1958-458	Measurement of the Asymmetry Parameter in μ-e Decay.	G. Lynch, J. Orear, S. Rosendorff Cornell Univ., Ithica, N. Y. [Floyd Newman] Lab. of Nuclear Studies and Columbia Univ., New York	11-15-58
SC-1958-461	Investigations of Bremsstrahlung of Electrons in the Energy Interval 10^{11} - 10^{12} EV. Report No. 39/VI. (In English.)	J. Benisz, Z. Chyliński, W. Wolter Instytut Badań Jadrowych, Warsaw	11-58
TSC-1958-462	Research Investigation Directed Toward Extending the Useful Range of the Electromagnetic Spectrum. Third Quarterly Progress Report [for] June 16, 1958 Through September 15, 1958.	P. Kusch Columbia Univ., N. Y. Columbia Rad. Lab.	9-15-58
SC-1958-464	Elastic Scattering of 300 Mev π-Mesons on Deuterium. (In Russian.)	L. S. Dul'kova, I. B. Sokolova, M. G. Shafranova Ob"edinennyi Institut Iadernykh Issledovanii, (Moscow) and Akademiia Nauk S.S.S.R. Institut Fiziki im. P. N. Lebedeva	1958
SC-1958-466	Electrical Dependence of Asymmetry in $\mu^+ - e^+$ Decay. (In Russian.)	A. I. Mukhin, E. B. Ozerov, B. M. Pontecorvo Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Iadernykh Problem, Moscow	1958

MISC-1958-467	Scattering of Particles of High Energies. Lectures Read at Summer Conference of Yugoslavian Physicists at Logshin Island, July 13-27, 1957. (In Russian.)	Ia. A. Smorodinskii Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Teoreticheskoi Fiziki, Moscow	1957
MISC-1958-468	Asymptotic Behavior of the Higher Green Functions. (In Russian.)	I. F. Ginzburg, D. V. Shirkov Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Teoreticheskoi Fiziki, Moscow and Akademiia Nauk S.S.S.R. Matematicheskii Institut.	1958
MISC-1958-469	Problems of Theory of Dispersion Relations. (In Russian.)	A. A. Logunov, A. N. Tavkhelidze Ob"edinennyi Institut Iadernykh Issledovanii. Laboratoriia Teoreticheskoi Fiziki, Moscow	1958
MISC-1958-470	On One Classical Model of Indefinite Metrics. (In Russian.)	B. V. Medvedev, M. K. Polivanov Same	1958
MISC-1958-471	Determination of Region of Capture for an Equation of the Second Order, Close to Conservative. (In Russian.)	V. K. Mel'nikov Same	1958
MISC-1958-472	Analytics of Nonrelativistic Amplitude of Scattering and of Potentials. (In Russian.)	Ia. A. Smorodinskii Same	1958
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RLE-TR-340	Algebraic Decoding for a Binary Erasure Channel.	M. A. Epstein Mass. Inst. of Tech., Cambridge Res. Lab. of Electronics and Mass. Inst. of Tech., Lexington. Lincoln Lab.	3-14-58
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-5071	Nondestructive Readout of Multilevel Magnetic Memory.	R. L. Van Allen, C. B. House	2-3-58
O-2195	Quarterly Report Covering the Period July 1 - September 30, 1958.	Princeton Univ., Project Matterhorn	n.d.
O-8050	Non-Linear Electron Oscillations in a Cold Plasma.	J. M. Dawson Princeton Univ., N. J. Project Matterhorn	8-1-58
TO-8675	Simultaneous, Successive and Alternating Direction Iteration Schemes.	J. Heller N. Y. Univ., N. Y. Atomic Energy Commission Computing and Applied Math. Center	10-1-58

-2614	Solid State Division. Annual Progress Report for Period Ending August 31, 1958.		11-20-58
NRDL-TR-269	Cross Sections for the $Mg^{24}(n, p)Na^{24}$, $Al^{27}(n,\alpha)Na^{24}$, $Si^{28}(n, p)Al^{28}$, $Cr^{52}(n, p)V^{52}$, and $Fe^{56}(n, p)Mn^{56}$ Reactions.	J. M. Ferguson, W. E. Thompson, B. D. Kern	10-10-58

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CU-3538	Functional Requirements of Fuel Handling System.	R. Flaherty, P. A. Halpine Westinghouse Elec. Corp. Bettis Plant, Pittsburgh, Pa.	1-16-56
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.6454	Reactivity Measurements in the ETR Critical Facility.	E. E. Burdick, J. W. Henscheid Same	7-10-58
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PL-M-CVM-22	Replacement of Electrical Heaters on the SSN575 Reactor Container.	C. V. Moore, T. O'Regan	11-21-56
PL-M-DGC-14	Accessibility to Lower Reactor Compartment. Part IV. Contribution of Sodium and Impurities in Evaporator, Expansion Tank. Superheater and Pipes.	D. G. Chappell	7-10-58
PL-M-DIG-TD-1	Summary of KAPL(DIG) Investigation of Burnout During Period February 19, 1958 Through May 6, 1958.	J. Longo, Jr.	5-14-58
PL-M-DOM-2	Comparison of One, Two, and Six Group Reactor Kinetics Computer Models.	D. R. MacNaughton	3-21-58
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-M-DWJ-6	Containment of Airborne Radioactive Contaminants in the Event of Small Primary Coolant Leaks.	D. W. Johnson	(5-56)
PL-M-EDL-37 Del.)	Mechanical and Thermal Tests of Matrix Tube Structure.	W. LaForce	11-15-53
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-M-HAF-1	Sodium Contaminating Impurities in Helium.	H. A. Fremont	6-1-49
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PL-M-KGC-2	Pile Container.	K. G. Carney, Jr.	7-14-50
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-SMS-18	Reactor Pressure and Isolation Valve Closure Following a Possible Leak in the Primary Coolant System of S3G.	C. W. Sorenson	3-1-56
-M-SMS-28	S3G Main Coolant System Pressure Drop and Flow.	D. R. Eifert, W. C. Smith, Jr.	6-8-56
M-SMS-33	Performance and Operational Characteristics of the S3G Water Brake.	L. A. Savastio	8-31-56
-M-SMS-35 Add. 1	Design Evaluation of the L-42 Loop (TF-57).		8-30-56
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PL-M-SMS-41	Attenuation of Thermal Waves in Piping.	A. J. Arker, M. Da Costa	9-17-56
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-SSD-44	Systems Description -- S3G Core Coolant Flow Measuring System.	H. Paitchel	10-24-56
-SMI-4	SIR PPA-30 -- Composition and Design.	S. W. Kitchen, G. B. Gavin, H. A. Palmer, et al.	7-25-55
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2634	Molten-Salt Reactor Program Status Report.		12-1-58
M-157	The Sampling Estimate of the Parameter Variance/Mean in Reactor Fluctuation Measurements.	D. R. Harris	8-58
-99	Monthly Progress Report for the Period September 1 to 30, 1958.	R. W. Garba, H. E. Walchli Westinghouse Elec. Corp. Atomic Power Dept., Pittsburgh	10-20-58

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5943	Additions to the Library. Report for the Period November 1-15, 1958. Technical Reports and Books.	P. A. Schulze	n.d.

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8357 Rev.	The Deutoron-Pickup Reaction in an Optical-Model Approximation.	K. R. Greider	11-5-58
-8369	Chemistry Division Semiannual Report - December, 1957 through May, 1958.		7-14-58
8411	From Microstructure to Macrostructure and Function in the Photochemical Apparatus.	M. Calvin	10-22-58
-8429	A Study of θ_1^0 Production and Decay by Observation of its Neutral Decay Mode.	J. E. Osher, B. J. Moyer, S. I. Parker	7-1-58
RL-8437	Documents Issued by the Technical Information Division - January 1 through June 30, 1958.		9-5-58
-8439	Spallation-Fission Competition in Neptunium Compound Systems. Decay-Scheme Studies. (Thesis)	R. M. Lessler	10-58
-8463	The Synthesis of Cis- and Trans-1, 2 Dichloroethylene Oxides.	A. S. Newton, J. H. Futrell	8-58
RL-8473	Greater Gain-Bandwidth in Trigger Circuits.	M. Brown	9-25-58
RL-8475	Radiobiological Studies on Yeast (Discussion)	R. K. Mortimer	9-58
RL-8503	Degradation of S_f 20-400 and High-Density Lipoproteins of Human Sera by Ethyl Ether.	S. Hayashi, F. Lindgren, A. Nichols	10-17-58
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[illegible]-8544	Further Search for Parity Nonconservation in Associated Production.	F. S. Crawford, Jr., M. Cresti, M. L. Good, F. T. Solmitz, M. L. Stevenson	12-58
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Mech. Eng.	UCID-480 (791140 M1)	72" Hydrogen Bubble Chamber - Purifier Drier.	R. Byrns	10-30-56
Mech. Eng.	UCID-481 (7911-40 M2)	72" Hydrogen Bubble Chamber - Hydrogen Refrigerator Oil - Water Separator.	S. T. Perkins	12-10-56
Mech. Eng.	UCID-482 (7311-29 M4)	Bevatron Shielding Cost Summary.	A. O. DuBois	4-19-56
Mech. Eng.	UCID-483 (7911-01 M39)	72" Bubble Chamber - General Report of the First Liquid Nitrogen Run.	H. P. Hernandez	10-28-58
Mech. Eng.	UCID-483 1st Rev. (7911-01 M39A)	72" Bubble Chamber - General - Report of the First Liquid Nitrogen Run.	H. P. Hernandez	10-28-58
Mech. Eng.	UCID-484 (4320-53 M8)	Data Analysis Development. Mk. III. Measuring Projector Lens Stage Components - Weight Estimate McCormick Rapid Reader Development.	F. Plunder	10-29-58
Elect. Eng.	UCID-485 (11-1 E24)	D. C. Machine Inductances.	J. D. Fahey	5-18-51
Mech. Eng.	UCID-486 (7911-40 M9)	72" Hydrogen Bubble Chamber - Refrigeration-Liquefier Master Drawing List.	E. Chuck, R. Byrns	1-31-58
Mech. Eng.	UCID-487 (7911-01 M40)	72" Hydrogen Bubble Chamber Fabrication, General Assembly - Gas Removal from Safety Sphere.	J. Mark	10-30-58
Mech. Eng.	UCID-488 (7911-01 M1A)	72" Hydrogen Bubble Chamber - General Identification of Instruments.	H. P. Hernandez, R. Smits	7-5-56
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ch. Eng.	UCID-492 (7911-01 M6)	72" Hydrogen Bubble Chamber Fabrication - General Study of Hydrogen Shield and Vacuum Tank Pressures Under Emergency (Calculations)	H. P. Hernandez	4-10-57
ch. Eng.	UCID-493 (7911-01 M10)	72" Bubble Chamber - Safety Sphere.	H. P. Hernandez	7-26-57
ch. Eng.	UCID-494 (7911-01 M11)	72" Bubble Chamber - Operation with Deuterium.	H. P. Hernandez	7-25-57
ch. Eng.	UCID-495 (7911-01 M12)	72" Bubble Chamber - Cost Study 1 July 1957.	H. P. Hernandez	7-27-57
ch. Eng.	UCID-496 (7911-01 M13)	72" Bubble Chamber Safety Sphere Visit to Stanford Research Institute.	H. P. Hernandez	9-9-57
ch. Eng.	UCID-497 (7911-01 M14)	72" Hydrogen Bubble Chamber Fabrication - General Assembly Bubble Chamber Heat Content.	D. A. Baghian	9-18-57
ch. Eng.	UCID-498 (7911-01 M15)	72" Bubble Chamber Safety Sphere Combustion and Detonation Limits.	H. P. Hernandez	9-27-57
ch. Eng.	UCID-499 (7911-01 M16)	72" Bubble Chamber Safety Sphere and Vent Cost Estimates.	F. Barrera	9-13-57
ch. Eng.	UCID-500 (7911-01 M22)	72" Hydrogen Bubble Chamber - General 72" Bubble Chamber Future Plans.	H. P. Hernandez	4-8-58
ch. Eng.	UCID-501 (7911-01 M23)	72" Hydrogen Bubble Chamber General Assembly Purge Gas Manifold Pressure Test.	K. Mirk	5-12-58

[illegible] Eng.	UCID-502 (7911-01 M24)	72" Bubble Chamber First Operation with Liquid Nitrogen.	H. P. Hernandez	5-20-58
[illegible] Eng.	UCID-503 (7911-01 M25)	72" Bubble Chamber Shop Work Status of Jobs, May 20, 1958.	H. P. Hernandez	5-20-58
[illegible] Eng.	UCID-504 (7911-01 M26)	72" Bubble Chamber Compressor Room Personnel Discussion with Plant Services, June 12, 1958.	H. P. Hernandez	6-13-58
[illegible] Eng.	UCID-505 (7911-01 M41)	72" Bubble Chamber Photos - Pictures of Interest only - Not a Complete List.	H. P. Hernandez	11-4-58

INFORMAL REPORTS RECEIVED IN THE INFORMATION DIVISION

[illegible]ECTRONICS

[illegible]-576	Analysis of Iron Cores Driven with Fast Pulses and High Voltages per Turn.	F. Voelker	12-5-58
[illegible]-586 [illegible]-04	Recommended Printed Circuit Connector Pin Connections for Counting Use.	D. A. Mack	8-18-58
[illegible]-588	RCA Tube A-2332 Tests, Serial Nos. 55, 53, 52, 49, 46 and 44 Reference: EE-574, RCA Tube A-2332, Serial No. 55, Tests.	H. C. Horton	12-9-58

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[illegible]0-01 M207	Trip Report - Seminar on VACION Pumps.	H. R. Smith	11-21-58
[illegible]0-01 M208	Handling and Cleaning of Fused Quartz.	J. O. Turner	12-15-58
[illegible]10-14 M1	General Physics Research (Barkas, Heckman). 22" Dia Meson Spectro. Magnet (Sagane) Revision.	J. Haughian	12-3-58
[illegible]901 -- M1	Bevatron - Mechanical Jobs Completed, 11-26-57 to 11-26-58.	W. W. Salsig, Jr.	11-13-58
[illegible]005-03 M5	Breakdown Voltage for Air at 20°C.	J. Haughian	12-9-58

[illegible]-[illegible] M35	Bevatron Magnet Coil - Modified Internal Support - 1958 Failure of Stud 7M5131-3.	J. Gunn	12-10-58
02-04 M30	Bevatron - Magnet Power Supply - Generator Journal Scratches Observed 12/2/58.	W. W. Salsig, Jr.	12-2-58
[illegible]7-01 M36	Bevatron - Exp. Facilities - Analysis of Position Indication Failures on Flip Targets During 1958.	R. D. Edwards	12-4-58
79[illegible]-01 M2	15" Bubble Chamber Refrigerator Compressor - Proposals Analysis.	R. Blumberg	11-25-58
[illegible]0-78 M10	Equipment Fabrications - Bent Crystal Gamma Ray Spectrometer Graduated Circle 8D2253-4 Microscope Tests Nos. 1 & 2.	D. Verkoeper	11-12-58
[illegible]0-78 M11	Equipment Fabrications - Bent Crystal Spectrometer Instructions for Collimator Assembly and Stretching of Lead Plates.	A. Carneiro	12-8-58
[illegible]1-01 M44	72" Bubble Chamber - Work List for First Hydrogen Run.	H. P. Hernandez	12-4-58