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July 17, 1956

Printed for the U. S. Atomic Energy Commission

LIST OF UNCLASSIFIED REPORTS RECEIVED AND ISSUED BY THE UCRL  
INFORMATION DIVISION DURING THE PERIOD OF JULY 1-15, 1956

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

July 17, 1956

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*M-4576	Calculations of Fundamental Constants and Conversion Factors. 1947 Values	R.A.Staniforth 1-5-48 Monsanto Chem. Co.
MISC 1956-165	Spiral Sector Magnets	D.W.Kerst 5-1-56 Ill.U.
MISC 1956-166	Properties of an Intersecting-Beam Accelerating System	D.W.Kerst 4-26-56 Same
MISC 1956-167	Matter and Anti-Matter	G.R.Burbidge 1956 F.Hoyle Mount Wilson and Palomar Observatories, Pasadena, Calif.
MISC 1956-168	Quarterly Progress Report No. 11 on Contract No. AF 18 (600) 997	Boston U. 6-30-56
MISC 1956-170	Proceedings [of the] 1954 Transistor Short Course, Conducted June 9-19, 1954, by the Dept. of Electrical Engineering, General Extension. 1954.	Penn.State Univ.
MISC 1956-173	On "Maximum Likelihood" Mass-Estimation of Non-Relativistic Singly Charged Particles in Nuclear Emulsions	E.M.Friedländer 1955 Magyar Tudományos Akademia, Budapest
MISC 1956-174	Determination of the Energy of a Particle From its Track in an Emulsion	L.Jánossy 1955 Same
MISC 1956-179	Tables of Nuclear Reaction Kinematics at Relativistic Energies	J.H.Malmberg E.J.Koester, Jr. Ill.U.
MIT-QPR-AC-Jan.- Mar. 1956	Quarterly Report [for] January - March 1956	

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*MLM-229	Geometrical Properties of the Hanson Long Tube Neutron Counter	T.I.Davenport H.P.Knauss	11-10-48
*MonP-47	The Multiplication Factor for Product Drums Containing Uranium Hexafluoride	A.H.Snell J.H.Rush Clinton Labs.	11-30-45
*MonP-48	Critical Experiments on Fluorinated and Hydrogenated Mixtures Containing Enriched Uranium. Final Report	A.H.Snell Same	11-30-45
*MonP-78	Fissionability Studies--Thermal Fissionability of Lead, Bismuth and Protoactinium <sup>233</sup>	J.J.Floyd Same	2-25-46
Monograph 2546	Photovoltaic Noise in Silicon Broad Area p-n Junctions, by U. F. Gianola. Reprinted from Journal of Applied Physics <u>27</u> , 51-4 (1956) April, 1956		
Monograph 2547	Concavity of Resistance Functions, by C.E.Shannon and D.W.Hagelbarger. Reprinted from Journal of Applied Physics <u>27</u> , 42-3 (1956) March, 1956		
Monograph 2555	Noise in Silicon p-n Junction Photocells, by G.L.Pearson, H.C. Montgomery and W. L. Feldmann. Reprinted from Journal of Applied Physics <u>27</u> , 91-2 (1956) April, 1956		
Monograph 2568	Solid-State Detector for Low-Energy Ions, by O..Heinz, E.M.Gyorgy and R. S. Ohl. Reprinted from Review of Scientific Instruments <u>27</u> , 43-7 (1956) April, 1956.		
Monograph 2582	Current and Voltage-Metering Magnetic Amplifiers, by T. L. Tanner. Reprinted from National Electronics Conference. Proceedings <u>11</u> , 120-9 (1956) May, 1956		
Monograph 2584	Low-Loss 1000-Microsecond Ultrasonic Delay Lines, by John E.May,Jr. Reprinted from National Electronics Conference. Proceedings <u>11</u> , 786-90 (1956) May, 1956		
Monograph 2585	Mathematics as a Profession Today in Industry, by Thornton C.Fry. Reprinted from American Mathematical Monthly <u>63</u> , 71-80 (1956) May, 1956		
*Microcards			

- Monograph 2586      Hall Effect and Conductivity of InSb, by H. J. Hrostowski  
F.J.Morin, T.H.Geballe and G.H.Wheatley, Reprinted from  
Physical Review 100, 1672-6 (1955). May, 1956
- MURA-DWK/KRS/LJL/  
LWJ/KMT-3      Fixed Field Alternating Gradient Particle Accelerators      D.W.Kerst      4-26-56  
K.R.Symon  
L.J.Laslett, et al.  
Midwestern Univ.  
Research Assn.
- MURA-LJL/KRS-1      Particle Orbits in Fixed Field Alternating Gradient Accelerators      L.J.Laslett      4-24-56  
K.R.Symon  
Iowa State Coll. et al.
- NYO-6329      Some Crystallographic Characteristics of Ordered MgCd<sub>2</sub> in  
Relationship to its Anomalous Thermal Equilibration at Low  
Temperatures. Progress Report for October 1, 1955 to  
January 1, 1956      W.E.Wallace      1-1-56  
R.S.Craig  
T.D.Brotherton  
Pittsburgh U.
- ORNL-2051      Solid State Division Semiannual Progress Report for Period Ending  
February 29, 1956      6-22-56
- ORNL-2105      A Monte Carlo Method of Calculating the Response of a Point  
Detector at an Arbitrary Position Inside a Cylindrical Shield      C.D.Zerby      6-25-56
- WAPD-151      A Second Report of Measurements of f, p, and e of Water Moderated  
Slightly Enriched Uranium Lattices      A.Z.Kranz      5-56  
G.G.Smith
- WASH-670      Report on European Trip (August 29 to October 9, 1955) and on Recent  
European Developments in Low Temperature Research      D.W.Osborne  
Argonne      3-2-56

REACTOR SCIENCE

- \*BNL-1602      Hydrodynamic Test of Cross Flow Reactor Component      T.V.Sheehan      1952-  
R.T.Schomer  
J.Weisman, et al

\*Microcards

*CF-48-8-348	Information for Reactor Safeguard Committee Meeting	J.R.Huffman S.Untermyer Oak Ridge	9-9-48
*CF-49-1-193	Brief of Development Reactor Project	S.McLain Oak Ridge	1-10-49
*CF-49-1-238	Is Shielding of Sub-Pile Room From Pile Water Activity Adequate?	N.M.Smith, Jr. Oak Ridge	1-18-49
*CF-49-4-123	Design of Regulating Rod for High Flux Reactor	D.Nicoll Oak Ridge	3-14-49
*CF-49-11-226	Calibration of TD 271 Fuel Assemblies	T.H.Mauney W.L.Ross Oak Ridge	11-16-49
*CF-49-12-84	MTR Shutdown Cooling Requirements	J.A.Lane Oak Ridge	12-16-49
*CF-50-1-45	Temperatures in the Bottom Thermal Shield Proposed for the Materials Testing Reactor	R.B.Briggs Oak Ridge	1-10-50
*CF-50-2-19	Supplement to Proposal for Bulk Shield Testing Facility	Oak Ridge	2-6-50
*CF-51-12-1	Delayed Neutrons and Their Reactivity Contribution to the Homogeneous Reactor	R.E.Aven Oak Ridge	12-4-51
*CF-52-3-134	Gamma Ray Distribution Through Water in the Research Reactor and Bulk Shielding Facility	J.A.Lane Oak Ridge	3-14-52
*CF-52-4-39	Calculations for the Cooling Water Activity of the Research Reactor	R.Stephenson Oak Ridge	4-8-52
*CF-52-9-75	Effect of Poisons on the Criticality of the ISHR at 250°C and 100°C	C.Barkelew M.Tobias Oak Ridge	9-16-52
*Microcards			

*CF-52-12-34	CP-6 Thermal Shield Experiments	E.P.Blizard Oak Ridge	12-6-52
*CF-52-12-145	Thermal Stress Analysis of a 6-ft. Diameter, 50 MW Single Region Reactor Vessel	R.H.Chapman Oak Ridge	12-12-52
*CF-53-4-48	The ORR as an Engineering Test Facility	A.M.Weinberg Oak Ridge	4-8-53
*CF-54-7-95	ORR Shielding Studies. I. Basic Design Information	N.F.Lansing Oak Ridge	8-9-54
*CF-56-1-162	Processing Requirements, Buildup of Fission Product Activity, and Liquid Radiochemical Waste Volumes in a Predicted Nuclear Power Economy	H.R.Zeitlin E.D.Arnold J.W.Ullmann Oak Ridge	1-30-56
*HW-7-2318	Effectiveness of Poison Columns Shadowing Effect in Eleven Column Pattern	R.L.Menegus	8-11-45
*HW-16092	Process Tube Temperature Mapping. Progress Report	R.G.Hoff	2-24-50
*HW-19284	Filler Block Graphite Sample Report. Final Report [on] Production Test 105-329-P	P.A.Johnson	11-1-50
*IDO-16024	Calculation of Rate of Poison Buildup in Beryllium Reflector in MTR	W.L.Morris	7-1-52
*M-4372	Plug Handling Facilities	A.B.Schultz Argonne	6-23-49
*M-4412 (Pts. IV & V)	Brookhaven National Laboratory Design Manual. Book No. 1. Volume 3. Parts IV And V. Pile	Ferguson (H.K.) Co., N.Y.	4-49
*M-4417	Brookhaven National Laboratory Process Instruments Manual. Book 4, Vol. I.	Same	3-49
*Microcards			



*MonE-64	Homogeneous Pile Water Activity. Final Report	M.Monet 2-8-46 Clinton National Lab.
*N-1668b	Suggestions for a High Temperature Pebble Pile	F.Daniels 10-25-44 Chicago U.
*N-2300	Equalization of Gas Temperatures Across A High Temperature Oxide Pile by Regulating Coolant Gas Flow in the Various Fuel Channels	L.W.Fromm, Jr. 6-6-46 Chicago U.
PNG-7	Aqueous Homogeneous Reactors. Second Annual and Final Report to Atomic Energy Commission	Pacific Northwest 2-56 Power Group, Richland.

MISCELLANEOUS

ANL-5585	Additions to the Library Report for the Period June 1-15, 1956 Technical Reports and Books	P.A.Schulze
ASTIA-U-105	Title Announcement Bulletin No. U-105	6-4-56
ASTIA-U-106	Title Announcement Bulletin No. U-106	6-25-56
*CF-47-8-240	[Contamination in the Emory and Clinch Rivers Carried by Silt or Water]	M.A.Buford 8-14-47 Oak Ridge
*CF-48-8-328	Reflection from the Ground (EXP. III, ARUU Program)	T.F.Bortner 8-22-48 Oak Ridge
*CF-51-9-63	Air Activity Studies Conducted at Corryton, Tennessee and Gainesville, Florida	D.M.Davis 10-25-51 F.J.Davis Oak Ridge
*EAH-87	Design Proposal for One Binocular and One Monocular Periscope for Hanford Works	G.R.Rede 2-10-49 General Electric Co.
HW-39273	A Scintillation Well-Logging System	W.G.Spear 5-1-56 M.O.Rankin

\*Microcards

*ISC-716	Inductances of Single Layer Cylindrical Coils for Induction Heating Applications	C.R.Whitsett	3-2-56
K-1285	A Count Register for Alpha Hand and Foot Counters	G.M.Lindner H.C.Woodall Oak Ridge	6-19-56
*MLM-529(Del.)	Report for General Research, October 2 to December 26, 1950. (Supporting Research Volume)		1-29-51
*N-1367	Instructions for Operating Portable G-M Radiation Meters	G.A.Binder Chicago U.	7-11-44
*N-1372	William Higinbotham's Comments on Higinbotham Scalers. Instrument Section Report No. SC50245	E.Wakefield Chicago U.	6-19-44
NACA-Abstract- No. 100	National Advisory Committee for Aeronautics. Research Abstracts and Reclassification Notice No. 100		5-7-56

LIST OF UNCLASSIFIED REPORTS ISSUED BY THE UCRL INFORMATION DIVISION

UCRL-3423	The Heats of Formation of $\text{AmO}_2^+$ (aq) and $\text{AmO}_2^{0+}$ (aq) in $1\text{M HClO}_4^1$	S.R.Gunn B.B.Cunningham	5-22-56
UCRL-3435	The Spin of Neon-21	J.C.Hubbs G.M.Grosof	6-4-56
UCRL-3458	List of Unclassified Reports Received and Issued by the UCRL Information Division During the Period of June 16-30, 1956		7-12-56