

## LIST OF MASTER'S THESES, 1953

- ALDRIDGE, HAROLD WILLIAM. *Psychology*  
 Level of Aspiration and Confidence in Judgment.
- ALLEN, ERIK HALWAY. *History*  
 A Study of the Metropolitan Visitation of Archbishop Laud,  
 1634-1636.
- ANTKIW, STEPHEN. *Physics*  
 An Optical Square Wave Generator.
- ATTINGER, STEPHEN SAMUEL. *Philosophy*  
 Eastern Religions and Christian Missions.
- BALLING, WILLIAM JOSEPH. *Chemistry*  
 The Oxidative Degradation of Acetals.
- BAUMGARTEN, PETER KARL. *Chemical Engineering*  
 Effect of Additives on Behavior of C<sub>5</sub> Hydrocarbons in Fur-  
 fural Solutions.
- BEAR, ROBERT SOUDERS. *Chemistry*  
 The Concentration Effect in Urease Inhibition by Phthalic  
 Derivatives.
- BELL, KENNETH JOHN. *Chemical Engineering*  
 Pressure Drop in a Baffled Heat Exchanger with Internal  
 Leakage.
- BENJAMIN, ALVIN CHESTER. *Mechanical Engineering*  
 Development of a Chemical Laboratory Hood and Air Supply  
 System.
- BRYAN, GEORGE MCKINSTRY, JR. *Physics*  
 A Measurement of the Viscosity of Air.
- BUDLONG, WILLIS ARTHUR, JR. *Physics*  
 A Radiofrequency Spectrometer for Observing Pure Nuclear  
 Quadrupole Spectra in Solids.
- CAMMACK, DAVID WALKER. *Human Relations*  
 Church Activity in Community Affairs, a Survey of Wilming-  
 ton, Delaware, and Elkton, Maryland, During the Early  
 Summer of 1953.

- CANNING, ROBERT VINCENT. *Electrical Engineering*  
A Study of a Linear Servomechanism.
- CHETKOWSKA, ELSIE BARBARA. *Education*  
Establishing Criteria for the Revision of the Manual of the  
Visiting Nurse Association of Wilmington, Delaware.
- DAVIDSON, JAMES EDWARD. *Inter-American Relations*  
Market Research in Latin America.
- DAVIS, EDWARD JAMES. *Entomology*  
Role of Insect-Control Operations in the Transmission of Virus  
Diseases of Sweet Pepper in Delaware.
- DAVIS, ROBERT JAQUETTE, JR. *Agriculture*  
The Effects of Nitrogen Level and Source of Calcium upon  
the Decomposition of Organic Materials and the Avail-  
ability of Cations in Norfolk Sandy Loam Soil.
- DEVLIN, ARTHUR THOMAS. *Physics*  
A Radiofrequency Quadrupole Spectrometer for Observing  
Nuclear Resonance Absorptions in Solids.
- DOUY, JOHN MARCEL. *Chemical Engineering*  
The Stress Corrosion of Brass and Some Other Alloys by the  
Smith and Pingel Method.
- DUNN, DENNIS JOSEPH, JR. *Mathematics*  
On the Determination of Initial Fragment Velocity by the  
Moving Picture Camera Method.
- EISSNER, ROBERT MONROE. *Statistics*  
A Method of Analyzing Sensitivity Data from "Contami-  
nated" Populations.
- FERRY, DANIEL BRADFORD. *Economics*  
Some Aspects of Labor Mobility: An Analysis of the Work  
Force of a Selected Industrial Plant.
- FRANCIS, PETER SCHUYLER. *Chemistry*  
The Rates of Chromic Acid Oxidation of Several Monocyclic  
and Bicyclic Secondary Alcohols.
- FUSCO, JOSEPH JOHN. *Chemical Engineering*  
Heat Transfer in a Baffled Heat Exchanger with Internal  
Leakage.

- GEIL, HARRY WILLIAM. *Chemical Engineering*  
Liquid-Film Coefficients in a Partial Vaporizer.
- GRANDELL, PETER ANGELO. *Education*  
A Follow-up Study of the January, 1938 Graduating Class of  
Wilmington High School, Wilmington, Delaware.
- HICKMAN, WILLIAM ROBERT. *Plant Pathology*  
Studies on the Cause, Symptomatology, Prevalence, and Dis-  
tribution of Dieback and Other Diseases of Oak Species in  
Delaware.
- HYDE, PATRICIA ANN. *Education*  
A Story of Puerto Rico at Sixth Grade Level.
- JACOBI, WILLIAM MOLLETT. *Chemical Engineering*  
A Study of the Flow and Rates of Burning in Turbulent Low  
Pressure Flames.
- JANOSKI, EDWARD JOHN. *Chemistry*  
A Correlation Between Catalyst Activity and Specific Magneti-  
zation.
- KERR, CARL ELWOOD. *Mathematics*  
On Homeomorphic Approximations.
- KUSHIBAB, FRANK JOHN. *Chemistry*  
Studies in the Synthesis of Some Allylic Alcohols.
- LANGE, KLAUS ROBERT. *Chemistry*  
The Quantitative Determination of Glyceryl Triacetate (Tri-  
acetin).
- LEIK, JAMES WELLINGTON. *Chemistry*  
Alkylation of p-Bromophenylhydroxymaleimide.
- LULOFF, JEROME. *Chemistry*  
The Cleavage of  $\alpha$ -Diketones with Potassium Cyanide.
- MAJEWSKI, THEODORE EUGENE. *Chemistry*  
A Study of the Synthesis of Alpha Alanil Iminodiacetic Acid.
- MARANTZ, SIDNEY. *Chemistry*  
The Oxidative Degradation of Polyethylene.
- MARONEY, SAMUEL PATTERSON, JR. *Biological Sciences*  
A Study of Acetylcholinesterase in the Gill of *Mytilus edulis* L.

- MCCLEAN, JAMES ALLEN. *Agriculture*  
The Use of Thymus Nucleic Acid as a Metabolic Regulator for Bovine Semen in Egg Yolk-Citrate Extender.
- MCGRANAGHAN, FRANCIS RICHARD. *Chemistry*  
Kinetics of the Cyanide Ion Cleavage of Benzil and Substituted Benzils.
- MCLELLAN, KENNETH NEIL. *Agronomy*  
The Solubilizing Effect of Soil Organic Acids on Iron.
- MERCER, FRANCIS ROBERT. *Education*  
Determining the Scope and Content of Farm Shop Courses on the Basis of What Farmers Consider Important.
- MILLER, ROBERT KENNETH. *Chemistry*  
Attempted Syntheses of Geraniol.
- MONAGHAN, WILLIAM JAMES, JR. *Mechanical Engineering*  
A Study of Factors Affecting Maintenance of the Fluorescent Lamp.
- MORRIS, WILLIAM EDGAR. *English*  
The Immediate Results of Milton's Divorce Pamphlets.
- O'DONNELL, JOSEPH ROBERT. *Physics*  
The Determination of the Coefficient of Viscosity of Air by the Capillary-Tube Method: A Study.
- OWEN, DAVID FRANCIS, JR. *Animal Industry*  
The Effect of Varying Levels of Hay and Corn Silage Consumption on Total Digestible Nutrient Intake and Milk Production.
- PASCALE, DONALD ANTHONY. *Chemistry*  
A Study of the Diels-Alder Reaction.
- PERREGRINO, JOSEPH ANTHONY. *Chemistry*  
Some Derivatives of N-Benzenesulfonylisonipecotic Acid.
- PIH, HAO HWEL. *Chemical Engineering*  
Fluidization of Fine Particles.
- PIOTROWSKI, ALFRED B. *Chemistry*  
Resonance Interaction in Small Ring Systems.

- POLASKI, WILLIAM. *Education*  
Three Years of the Diversified Occupations Cooperative Part  
Time Training Program at Wilmington High School.
- PRAGER, PHILIP CARL. *Mechanical Engineering*  
The Effects of Modified Valve Timing and Engine Cooling  
on the Knock-Limited and Cooling Characteristics of an  
Aircraft Engine.
- PUCHIR, MICHAEL. *Physics*  
The Theoretical Calculation of the Electrostatic Field Gradient  
at the Nucleus in the Chlorine Molecule.
- REYNOLDS, JOHN WILLIAM. *Agriculture*  
The Evaluation of Antibiotics in Broiler Diets.
- RICE, RICHARD DAVIS. *Chemical Engineering*  
Partial Condensation of Mixed Vapors.
- RICKERT, RUSSELL KENNETH. *Education*  
An Inquiry into the Relationship of Tenure of Delaware  
Teachers to Selected Personal Factors.
- ROSCH, FRANCIS CLIFFORD, JR. *Mechanical Engineering*  
The Principles and Applications of Expansion Joints.
- RUMP, ELLIS SAMUEL, JR. *Chemistry*  
The Determination of the Molecular Structure of Amides by  
Physical Measurements.
- RUSH, FRANK EDWARD, JR. *Chemical Engineering*  
Vapor Density of Water-Acetic Acid Mixtures.
- SCALA, SINCLAIRE MAXIMILIAN. *Mechanical Engineering*  
The Determination of the Theoretical Profile Loss in a Cascade  
of Airfoils.
- SCHILLY, RALPH CHARLES, JR. *Chemical Engineering*  
A Chemical Analytical Approach to the Burning Velocity of  
Turbulent Flames Burning in Ducts.
- SCOTT, HARVEY. *Chemistry*  
The Synthesis of Isocyanate Yielding Intermediates.
- SEGAL, HIRSH SHOLOM. *Chemistry*  
The Solubility of Silver Bromide in Dilute Aqueous Ethano-  
lamine Solutions.

- SIEGEL, HENRY MORTON. *Political Science*  
The Constitutional Aspects of Recent Administration of Immigration.
- SILVA, FRANK JAMES. *Agriculture*  
Side Dressing Corn With Anhydrous Ammonia at Various Growth Stages.
- SNYDER, DONALD GRAEFF, JR. *Chemistry*  
Studies on the Nucleic Acid Content of Haploid and Diploid *Habrobracon* During the Pupal Stages of Development.
- SOBOLESKY, WALTER JOSEPH. *Biological Sciences*  
Studies of Comparative Virulence in Mice of Four Strains of *Brucella abortus* with Special Reference to a D-valine Adapted Strain.
- STRAUSE, STERLING FRANKLIN. *Chemistry*  
A Polarographic Study of the Free Radical Oxidation of Acrylonitrile.
- SWANN, WILLIAM BERNARD. *Chemistry*  
Cathode Ray Polarograph.
- TOMKINS, JAMES FRANCIS, JR. *Chemical Engineering*  
Heat Transfer and Pressure Drop in a Cylindrical Baffled Heat Exchanger During Viscous Flow.
- VAUGHN, ROBERT DONALD. *Chemical Engineering*  
Dead Space and Flame Front Thickness for Butane-Air and Methane-Air Flames at Reduced Pressures.
- VOELKL, HANS RICHARD. *Chemistry*  
A Study of Reactions Leading to the Formation of N-Carboxy-Beta-Amino Acid Anhydrides.
- WEAVER, HENRY DAVID, JR. *Chemistry*  
Mercuric Chloride Derivatives of Amines.
- WEBB, CHARLES WESLEY. *Agricultural Economics*  
An Economic Analysis of the Production of Processing-Tomatoes in Delaware, 1952.
- WEISFELD, LEWIS BERNARD. *Chemistry*  
Kinetics and Mechanism of the Rearrangement of Dibromo-cholesterol.

- WHITE, EMERY ALBERT. *Electrical Engineering*  
An Improved Two-Transistor Binary Circuit.
- WILSON, GEORGE ANDERSON. *Biology*  
The Effect of X-rays on the Development of the Secondary  
Thickenings of the Protoxylem Vessels in the Primary Roots  
of Zea Mays.
- WINTRUP, MARJORIE. *Education*  
Trends in Education in Puerto Rico From 1898 to 1953.
- WOOD, FRANK EVANS. *Chemical Engineering*  
Forced and Natural Convection in Vertical Walled Tubes.
- WYETH, JOHN. *Chemistry*  
The Preparation of Metal Salts of Several Organic Acids.
- YIENGER, JOHN HUTCHINSON. *Mathematics*  
The Reduction of Truncation Error by Extrapolation.
- ZIMMER, GEORGE ARTHUR. *Mechanical Engineering*  
A Strain Gauge Accelerometer for Measurement of High  
Accelerations.
- ZITTERE, CORNELIUS PERSHING. *Mechanical Engineering*  
Analysis of Piping Requirements for High Pressure, High  
Temperature Service.