

## LIST OF MASTER'S THESES, 1954

- ALBERTS, HENRY CELLER. *Physics*  
A Study of Diffraction of Shock Waves in Hollow Models  
Analysis and Equations, Part I.
- ALLMAN, JAMES MARTIN. *Mechanical Engineering*  
A Critical Study of Friction in Shrink-Fit Assemblies.
- AMLING, HARRY JAMES. *Horticulture*  
A Comparison of Poultry Manure and Nitrate Fertilizers.
- BANNISTER, RALPH RICHARD. *Chemical Engineering*  
Flame Temperature, Absorptivity, and Emissivity Measurements from the Water Band Emission Spectra of the Near Infrared.
- BRANCH, ROBERT EDWARD. *Chemical Engineering*  
Heat Transfer Characteristics of Pseudoplastic Fluids.
- BROWN, STEWART CLIFF. *Chemistry*  
Polymerization of the Divalerate of 3-Butene-1,2-Diol.
- CHARSHA, RICHARD CARLISLE. *Chemistry*  
The Alkaline Permanganate Oxidation of a Branched Chain Primary Alcohol.
- CHILD, EDWARD TAYLOR. *Chemical Engineering*  
A Spectrophotometric Study of Methane, Carbon Monoxide and Hydrogen Flames.
- COHEN, LEONARD PARKER. *Mechanical Engineering*  
The Design of a Universal Air Conditioning System.
- DEVERELL, MERWYN WALTER. *Biological Sciences*  
Studies on Virulence and Antigenicity of D-Valine Adapted Strains of *Brucella Abortus*.
- DIEHL, TENNIESON HANDLEY THOMAS. *Chemistry*  
Ethyl  $\beta$ -cyano-2,5-dimethyl- $\alpha$ -hydroxycinnamate.

- DYER, EDWARD JOHN. *Education*  
A Study of School-Community Planning in Two Elementary Schools.
- FEDDEMA, LEONARD WILLIAM. *Horticulture*  
The Use of Certain Growth Regulators and Anti-Transpirants for Reducing Excessive Flower and Pod-Drop of Lima Beans.
- FOSS, ALLAN STUART. *Chemical Engineering*  
Liquid Film Efficiencies on Sieve Trays.
- FREULER, FRIDOLIN HERMANN. *Mechanical Engineering*  
Load Distribution on Screw Threads and the Effect of Differential Pitch Thread.
- FYFE, IAN MILLAR. *Mechanical Engineering*  
The Coefficient of Static Friction and Surface Damage of Dry Steel Contacts.
- GANDY, MARTHA LOU. *Early American Culture*  
Joseph Richardson, Quaker Silversmith.
- HACKLEY, BRENNIE ELIAS. *Chemistry*  
A Study of the Catalytic Effect of Various Metal Chelates.
- HOCHGRAF, NORMAN NICOLAI. *Chemical Engineering*  
Effect of Gas Rate on Bubble Tray Mass Transfer for a Gas Film Controlling System.
- HOLLIS, WILLIAM LEMUEL. *Horticulture*  
The Effects of Maleic Hydrazide Applied as a Foliage Spray on Certain Vegetable Crops in Delaware.
- HOLZMAN, ALLEN LEONARD. *Chemical Engineering*  
The Effect of Internal Leakage on Heat Transfer and Pressure Drop in a Baffled Heat Exchanger.
- HUGHES, ELLEN CARMICHAEL. *English*  
The Female Wits: Mrs. Mary de la Riviere Manley, Mrs. Mary Griffith Pix, and Mrs. Catherine Trotter Cockburn.
- HURD, BENJAMIN. *Chemistry*  
Attempted Synthesis of 3-Ethyl-3 methoxy-4-*tert*-butyl-*n*-hexane.

- INNIS, ROBERT EHLEN. *Education*  
An Experimental Investigation of the Colorimetric Properties  
of Acid Aqueous Solutions of Sodium Chloroplatinate.
- IRONS, HELEN MARIE CALVIN. *Education*  
Evolution of Community Education in Puerto Rico.
- JASTAK, SARAH RICKARDS. *Psychology*  
The Role of Intelligence and Learning in Destructive Ability.
- KEDDA, EDWARD JOHN. *Agronomy*  
An Improved Method For the Rapid Determination of Avail-  
able Soil Phosphorus.
- KERNS, GORDON DALE. *Chemical Engineering*  
The Influence of Surface Boiling on Heat Transfer by Con-  
vection: A General Method for Correlating Data.
- KERR, MAE KATHRYN. *Mathematics*  
On the Nature of Solutions of  $y'' + q(x)y = 0$ .
- KNOBL, GEORGE MARTIN. *Chemistry*  
Syntheses of Highly Branched Tertiary Aliphatic Alcohols.
- KNOX, ROBERT WINFIELD. *Electrical Engineering*  
A High Speed Multiple Input Encoder.
- KRUSOS, JAMES NICHOLAS. *Mechanical Engineering*  
Heat Transfer Characteristics of Plain and Finned Tubes.
- LACKNER, HENRY ALLYN. *Physics*  
Temperature Dependence of Microwave Absorption Line  
Widths.
- LEAMAN, JOHN MARTIN. *Mechanical Engineering*  
An Experimental Investigation of the Pulsations in the Dis-  
charge of Spur Gear Pumps.
- LINS, RICHARD HENRY. *Chemistry*  
Mechanism for the Perbenzoic Acid Oxidation of Para-sub-  
stituted  $\beta$ -Benzoylpropionic Acids.

- LIPTON, SIDNEY MEYER. *Mechanical Engineering*  
Accuracy and Versatility Factors in the Design of Optical Tracking Instruments.
- LUDWIG, RICHARD ELI. *Chemistry*  
Pyrrolidinetrioxones.
- McLAUGHLIN, JAMES FRANKLIN. *Physics*  
Use of Nuclear Quadrupole Spectroscopy for the Determination of Axes in Crystals.
- MEEKER, THRYGVE RICHARD. *Chemistry*  
A Spectrophotometric Kinetic Study of the Condensation of Cinnamaldehyde with Acetophenone.
- MILLER, OAKLEY BLOY. *Physics*  
Nuclear Quadrupole Resonances in Bromine and Iodine Compounds.
- MOSER, PAUL MICHAEL. *Physics*  
An Investigation of Microwave Spectral Line Breadths of OCS, BrCN and CH<sub>3</sub>OH.
- MULROONEY, EDWARD ALOYSIOUS. *Mechanical Engineering*  
Design of a Corrosion Resistant Centrifugal Blower.
- MURPHY, FRANKLIN JAMES. *Entomology*  
The Resistance of Insects to New Insecticides.
- MYER, FREDERIC EDWIN. *Education*  
A Study of the Needs of Out-of-School Young and Adult Farmers in Delaware with Regard to Agriculture Information and Training.
- NORBET, WALTER JOHN. *Political Science*  
The Vote for United States Representative from Delaware in Relation to the Trend Toward Urbanization in the State 1920-1952.
- OLSON, WENDELL CLARENCE. *Mathematics*  
The Hugoniot Table for Air at Various Ambient Conditions.
- PARTHEMORE, KEITH GORDON. *Electrical Engineering*  
A Misfire Counter for Internal Combustion Engine Research.

- REED, JOHN CHARLES. *Chemical Engineering*  
Power Consumption in Non-Newtonian Fluid Flow.
- REMER, NORMAN ALBERT. *Chemical Engineering*  
Effects of Bubble Tray Design on Plate Efficiency.
- SATTERTHWAITE, STACY TAYLOR. *Entomology*  
Development of a Miticide from Sugar Products.
- SCHWARTZ, MARVIN DAVID. *Early American Culture*  
The Meaning of Portraits: John Singleton Copley's American Portraits.
- SCRIVEN II, L. EDWARD. *Chemical Engineering*  
The Effects of Liquid Rate and Weir Height on Gas-Film Plate Efficiency.
- SKALAMERA, JOHN JOSEPH. *Chemical Engineering*  
Automatic Analysis of Particle Size Distribution Data.
- SMITH, WARREN NEWBOLD. *Mechanical Engineering*  
Air Pollution Abatement Procedures and Their Application to a Calcium Sulfate Dust Problem at E. I. duPont de Nemours & Company.
- SNOW, WALTER ALARD. *Mechanical Engineering*  
The Dynamic Capacity of Reciprocating Ball Bearings.
- SPRINGER, FRANK B. *Agronomy*  
Pre-Emergence Chemical Weed Control in Soybeans.
- STOGRYN, EUGENE LEO. *Chemistry*  
Preparation of Pyridylserinates.
- STOLBERG, MARVIN ARNOLD. *Chemistry*  
The Preparation of a New Class of Diacyl Hydroxylamines.
- SWEENEY, JOHN ANDREW HANNA. *Early American Culture*  
The Corbit House at Odessa, Delaware.
- TIPPING, WILLIAM EDWARD, JR. *Mechanical Engineering*  
Dowtherm System Design and Controllability.

- VOGT, HERWART CURT. *Chemistry*  
Benzoylcyanimide from N-Benzoyl-O-Ethylisourea.
- WANTUCK, STEPHEN JOHN. *Chemistry*  
Catalytic Vapor Phase Alkylation of Xylenes with Methyl Alcohol.
- WRIGHT, EVERETT JAMES. *Chemistry*  
The Preparation of Pure Nitramines.
- WURSTER, CHARLES FREDERICK, JR. *Chemistry*  
The Reaction of Isopropylamine with Nitrous Acid.
- YEAGLE, CHARLES FRANCIS. *Economics*  
Absence Control: A Problem of American Industry.
- ZIELINSKI, RICHARD MICHAEL. *Chemical Engineering*  
A Study of Open Turbulent Flames Burning in an Inert Atmosphere.