

THE JOHNS HOPKINS UNIVERSITY  
BALTIMORE, MARYLAND

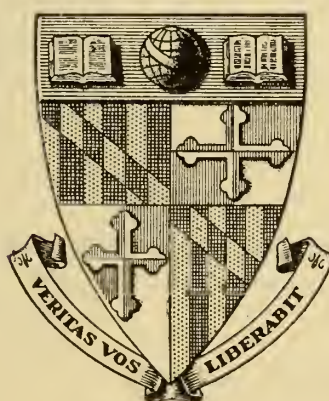
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# CONFERRING OF DEGREES

AT THE CLOSE OF THE EIGHTIETH ACADEMIC YEAR

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JUNE 12, 1956



KEYSER QUADRANGLE

AT TEN A. M.

# ORDER OF PROCESSION

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## CHIEF MARSHAL

FRITZ MACHLUP

### *Divisions*

The President of the University,  
the Chaplain, Honored Guests,  
the Trustees

The Faculties

The Graduates

### *Marshals*

C. FRANK MILLER

WILLIAM D. McELROY

GEORGE S. BENTON

THOMAS F. HUBBARD

WALTER S. KOSKI

JAMES M. McKELVEY

NASLI H. CHOKSY

HOWARD E. COOPER

CHARLES D. FLAGLE

JOHN WALTON

MARGARET MERRELL

R. CARMICHAEL TILGHMAN

PAUL M. A. LINEBARGER

THOMAS I. COOK

## USHERS

The ushers are members of Kappa Mu Chapter of Alpha Phi Omega,  
national service fraternity

## ORGANIST

JOHN H. ELTERMANN

The audience is requested to stand as the academic procession moves into the area  
and to remain standing until after the Invocation and the  
singing of the National Anthem

# ORDER OF EXERCISES

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## I

### PROCESSIONAL

“Processional” by Masciadri

## II

### INVOCATION

THE VERY REVEREND JOHN N. PEABODY  
Cathedral Church of the Incarnation

## III

### THE NATIONAL ANTHEM

## IV

### ADDRESS

“Change in an Expanding Economy”  
DEVEREUX COLT JOSEPHS

## V

### CONFERRING OF DEGREES AND CERTIFICATES

Bachelors of Arts	—presented by Dean COX
Bachelors of Science in Business	
Bachelors of Engineering Science	—presented by Dean ROY
Bachelors of Engineering	
Masters of Science in Engineering	—presented by Dean ROY
Doctors of Engineering	
Bachelors of Science	—presented by Dean MUMMA
Bachelors of Science in Nursing	
Bachelors of Science in Engineering	
Masters of Science in Engineering	
Masters of Education	
Certificates of Advanced Study in Education	
Master of Science in Hygiene	—presented by Professor STEBBINS
Doctors of Science in Hygiene	
Masters of Public Health	
Doctors of Public Health	
Doctors of Medicine	—presented by Dean BARD
Masters of Arts, School of Advanced International Studies	—presented by Dean THAYER
Doctor of Philosophy, School of Advanced International Studies	
Masters of Arts	—presented by Professor PAINTER
Doctors of Philosophy	

## VI

### BENEDICTION

## VII

### RECESSIONAL

“Trumpet Tune” and “Voluntary” by Purcell

The audience is requested to remain standing after the Benediction  
until the faculties have left the area.

# CANDIDATES FOR DEGREES

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## BACHELORS OF ARTS

- PAUL BRAVE ABRAMS, of Baltimore, Md.  
HOWARD JACQUES ALFANDRE, of Washington, D. C.  
NEIL AMBACH, of Baltimore, Md.  
SANFORD MAYER BAKLOR, of Baltimore, Md.  
GEORGE EDWARD BATAYIAS, of Savannah, Ga.  
\* JOHN RANDOLPH BATT, of Cumberland, Md.  
\* HERBERT JOSEPH BELGRAD, of Baltimore, Md.  
LEWIS HENRY BENNETT, of Glen Burnie, Md.  
\* ROLF HANS BENZINGER, of Rockville, Md.  
\* EDWARD ALLAN BERNSTEIN, of Woodmere, N. Y.  
ALBERT WILLIAM BERTUCH, of Baltimore, Md.  
WAKEMAN SCRIVNOR BEVARD, JR., of Sykesville, Md.  
HARVEY HAROLD BIRD, of Hainesburg, N. J.  
RICHARD BOEHM, of New York, N. Y.  
RICHARD JOHNSTON BROWN, of Haddonfield, N. J.  
CHARLES COMBS BURCH, JR., of Baltimore, Md.  
\* WILLIAM MARCELLUS BURGAN, II, of Baltimore, Md.  
ROBERT BLUNDON BURGESS, JR., of Baltimore, Md.  
CHARLES VICTOR BURTON, of New York, N. Y.  
ANTHONY ALEXANDER CACOSSA, of Newburgh, N. Y.  
\* ROBERT E. LEE CALHOUN, of Aberdeen, Wash.  
STEPHEN PHILIP CARNEY, of Johnstown, Pa.  
WILLIAM HENRY BARTON CLARKE, of Baltimore, Md.  
HERBERT GODAK COHEN, of Binghamton, N. Y.  
\* SANFORD NED COHEN, of Jackson Heights, N. Y.  
\* RONALD EDWARD CREAMER, of Baltimore, Md.  
ANTHONY JOSEPH CRISTOFORO, of Burlington, N. J.  
MAURICE MORTON VIDSON, of Baltimore, Md.  
REAMOR ROBIN DELA BARRE, of Baltimore, Md.  
PAUL ROBERT DISNEY, of Baltimore, Md.  
JOSEPH WALTER DONOHUE, JR., of Baltimore, Md.  
LOUIS DAVID DUBILIER, of Jersey City, N. J.  
JAMES EDWIN DUNN, II, of Edgeworth, Pa.  
HERBERT LEE ELLIOTT, of Baltimore, Md.  
RUSSELL CLAYTON EMORY, of Milford, Del.  
NORIO BRUCE ENDO, of University Park, Md.  
FREDERICK PAUL FEDER, JR., of Baltimore, Md.  
\* RICHARD LAWRENCE FEIN, of Saugerties, N. Y.  
JOEL TED FINE, of Baltimore, Md.  
PETER STEPHEN FISCHER, of Roslyn Heights, N. Y.  
JOHN LEWIS FLEISCHMAN, JR., of Frederick, Md.  
JOHN G. FORTE, of Baltimore, Md.  
ROBERT PAUL FREEMAN, of Manhasset, N. Y.  
RICHARD EMORY GACHELL, of Baltimore, Md.  
MELVYN M. GELCH, of Brooklyn, N. Y.  
MARIO BENEDITO GIAIMO, of Mountainside, N. J.  
STANLEY ALLAN GLADSTONE, of Baltimore, Md.  
JOHN BOYDEN GOODELL, of Arlington, Va.  
ALVIN DONALD GREENBERG, of New York, N. Y.  
\* MILTON JEROME GROSSMAN, of Baltimore, Md.  
TILGHMAN KEMP HACKETT, JR., of Baltimore, Md.  
JAMES CHRIST HAMILOS, of Baltimore, Md.  
\* RAFAEL HERNÁNDEZ, JR., of Ponce, Puerto Rico  
NAITAN JEW, of Jersey City, N. J.  
CARLETON HADDOCK JONES, JR., of Hampton, Va.  
DOUGLAS BARR JONES, of Hamden, Conn.  
\* JAY NORMAN KARPA, of Baltimore, Md.  
RICHARD EUGENE KENT, of Annapolis, Md.  
JAMES KIMBALL KING, of Princeton, N. J.  
\* PHILIP MICHAEL KIROL, of New Castle, Pa.  
ALLEN L. KLEIN, JR., of Baltimore, Md.  
RAHMI MUSTAFA KOC, of Ankara, Turkey  
RICHARD FREDERICK KUENKLER, of Baltimore, Md.  
PHILIP MICHAEL LAMASTRA, of Stratford, Conn.  
JOHN CHRISTIAN LAMBERT, of Baltimore, Md.  
HARRY VERNON LANGE LUTTIG, JR., of Baltimore, Md.  
JOHN THOMAS LANNING, JR., of Fairview Park, O.  
\* ROBERT GALBRAITH LARIMER, of Pittsburgh, Pa.  
DAVID HENRY EMANUEL LAUMAN, of Freehold, N. J.  
REUBEN RICHARD LEE, of Linthicum, Md.  
\* YUNG KEUN LEE, of Seoul, Korea  
\* PETER HERMON LEFFMAN, of Baltimore, Md.  
JOHN WILLIAM LEONARD, JR., of Wynnewood, Pa.  
RICHARD IRA LIDZ, of New York, N. Y.  
MAYER CROCKIN LIEBMAN, of Salisbury, Md.  
LIONEL EDMUND LINDENBAUM, of New York, N. Y.  
MAURY JAY LISANN, of Washington, D. C.  
LINCOLN LUM, of Mt. Vernon, N. Y.  
\* CHRIS J. LUNESKI, of Kensington, Md.  
STANLEY H. MARGOLIS, of Baltimore, Md.  
\* STANLEY IRA MARGULIES, of Baltimore, Md.  
ARLYN A. MARSHALL, of Baltimore, Md.  
\* ALBERT R. MARSTON, of Baltimore, Md.  
PETER ALEXANDER MCNAMARA, of Olympia, Wash.

\* Graduating with departmental honors.

- JOHN JOSEPH MESSINA, of Baltimore, Md.  
 JOHN PHILLIPS MOORE, JR., of Baltimore, Md.  
 MICHAEL ROBERT MULLADY, of Rockville Centre, N. Y.  
 JAMES JOSEPH MULLIGAN, JR., of Baltimore, Md.  
 ROBERT A. MYERS, of Baltimore, Md.  
 JOHN JACKSON NEWTON, of Claymont, Del.  
 SAUL B. OFFIT, of Baltimore, Md.  
 THOMAS WORTHINGTON OFFUTT, III, of Owings Mills, Md.  
 DONALD STUART O'HARA, of Baltimore, Md.  
 MILLARD FREDERICK OTTMAN, JR., of Washington, D. C.  
 \* FRED MILTON PALACE, of New York, N. Y.  
 DWIGHT MORGAN PLOTT, of Rogersville, Ala.  
 GERALD POLLIN, of Washington, D. C.  
 \* NELSON WOOLF POLSBY, of Chevy Chase, Md.  
 ZUSEL RUBÉN PORDOMINSKY, of Tegucigalpa, Honduras  
 \* STUART MARVIN POTICHA, of Chicago, Ill.  
 \* ALLEN LEWIS PUSCH, of York, Pa.  
 DAVID LAWRENCE RAMSEY, of Montrose, Calif.  
 DAVID NORMAN RINDER, of New York, N. Y.  
 \* ALAN MANUEL ROSE, of Baltimore, Md.  
 HOWARD ROTHSTEIN, of New York, N. Y.  
 ROBERT EUGENE SABINA, of Griffith, Ind.  
 \* DWIGHT PROFFER SAYLOR, of Adelphi, Md.  
 MELVIN MAYER SCHEINMAN, of Brooklyn, N. Y.  
 CHESTER WILLIAM SCHMIDT, JR., of New York, N. Y.  
 \* DOUGLAS NORMAN SCHNEIDER, JR., of Baltimore, Md.  
 JAMES WILLIAM SCHNEIDER, of Arnold, Md.  
 OTTOMAR SCHRODER, of Upperco, Md.  
 DAVID PHILIP SCHUMACHER, of Washington, D. C.  
 \* BERTRAM PHILIP SCHWARTZ, of Baltimore, Md.  
 ROBERT LEWIS SCOTT, of Baltimore, Md.  
 BRUCE IVAN SHACKTER, of Chicago, Ill.  
 LAWRENCE SIROVICH, of North East, Md.  
 EARL EDWARD SLAYBAUGH, JR., of Baltimore, Md.  
 WILLARD DEXTER SMITH, of Hillside, N. J.  
 FRANK PARR LEWIN SOMERVILLE, of Pikesville, Md.  
 JOHN WILLARD EAGLESTON STANDIFORD, of Aberdeen, Md.  
 WILLIAM ROBERT STEVENSON, of Towson, Md.  
 DALE DUANE STEWART, of Huntington Park, Calif.  
 FRANCIS JOHN STOLARZ, of Clifton, N. J.  
 HENRY WADE STONESIFER, of Baltimore, Md.  
 RICHARD HENRY STOTHOFF, of Flemington, N. J.  
 FRANCIS OSWALD SUE-PING, of Georgetown, British Guiana  
 DANIEL FRANCIS SULLIVAN, of Baltimore, Md.  
 RICHARD HENRY SWARTLEY, of Baltimore, Md.  
 JAMES STUART TAYLOR, of Baltimore, Md.  
 EDWARD SNOWDEN WARFIELD, JR., of Baltimore, Md.  
 N. BANCROFT WILLIAMS, JR., of Baltimore, Md.  
 WILLIAM HOLMES WOOD, JR., of Baltimore, Md.  
 JOHN ALBERT WOODFIELD, of Baltimore, Md.  
 KENNETH MERRILL YOUNG, JR., of Roselle Park, N. J.  
 EDWIN GILBERT ZALIS, of Miami, Fla.

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#### GRADUATING WITH GENERAL HONORS

- |                             |                               |
|-----------------------------|-------------------------------|
| JOHN RANDOLPH BATT          | JOHN CHRISTIAN LAMBERT        |
| HERBERT JOSEPH BELGRAD      | ROBERT GALBRAITH LARIMER      |
| ROLF HANS BENZINGER         | YUNG KEUN LEE                 |
| WILLIAM MARCELLUS BURGAN II | PETER HERMAN LEFFMAN          |
| STEPHEN PHILIP CARNEY       | MAYER CROCKIN LIEBMAN         |
| RONALD EDWARD CREAMER       | MAURY JAY LISANN              |
| LOUIS DAVID DUBILIER        | CHRIS J. LUNESKI              |
| RICHARD LAWRENCE FEIN       | ALBERT R. MARSTON             |
| MILTON JEROME GROSSMAN      | NELSON WOOLF POLSBY           |
| RAFAEL HERNÁNDEZ, JR.       | ALAN MANUEL ROSE              |
| JAY NORMAN KARPA            | MELVIN MAYER SCHEINMAN        |
| PHILIP MICHAEL KIROL        | DOUGLAS NORMAN SCHNEIDER, JR. |

EDWIN GILBERT ZALIS

\* Graduating with departmental honors.



## BACHELORS OF SCIENCE IN BUSINESS

LLOYD BAGNELL, of Baltimore, Md.  
GORDON ROBINSON EWING, of Baltimore, Md.  
STANFORD HAMILTON HENRY, of Fairfield, Conn.

ROBERT LOWRY INGHAM, of Baltimore, Md.  
LOUIS FREDERICK KREYER, JR., of Garden City, N. Y.  
EDWARD AIKMAN MORGAN, JR., of Port Washington, N. Y.

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## BACHELORS OF ENGINEERING SCIENCE

ROBERT GOLDER ALDERSON, of Baltimore, Md.  
GEORGE PAUL ANIKIS, of Baltimore, Md.  
JOHN ERNEST ARMSTRONG, JR., of Baltimore, Md.  
FRANCIS NEILL ARONHALT, of Cumberland, Md.  
CHARLES HAROLD BAKER, JR., of Baltimore, Md.  
WILLIAM FREDERICK BANGS, of Baltimore, Md.  
ANDREW SLOAN BARCLAY, of Towson, Md.  
CHARLES HENRY BECKER, of Baltimore, Md.  
LOUIS ARTHUR BENTON, of Hillcrest Heights, Md.  
CRISTOBAL ANDRADE BONIFAZ, of Quito, Ecuador  
GEORGE KENNETH BUKOVSKY, of Baltimore, Md.  
JAMES PHILLIP BURNSIDE, of Catonsville, Md.  
DONALD BRUCE CLEMONS, of Baltimore, Md.  
D. BUCKEY CLEMONS, of Baltimore, Md.  
SIDNEY LEE COHEN, of Baltimore, Md.  
DAVID HOWARD JOHN COLLIGNON, of Baltimore, Md.  
ROBERT JOSEPH CONNOR, of Long Beach, N. Y.  
HERBERT DAVID COSS, JR., of Hagerstown, Md.  
STEPHEN CORTEEN COWIN, of New Orleans, La.  
LOREN MILTON COX, of Baltimore, Md.  
PETER CRANIDIOTIS, of Baltimore, Md.  
LUTHER GORDON CROFT, of Port Tobacco, Md.  
CHARLES LEWIS CRUM, of Frederick, Md.  
ROBERT RAY DAUB, of Baltimore, Md.  
DONALD ELWOOD ERB, of Taneytown, Md.  
WILLIAM CHARLES FRIESE, of Baltimore, Md.  
JOSEPH REID GASKINS, of Roanoke Rapids, N. C.  
DENNIS ANTHONY GIERON, of Baltimore, Md.  
WILLIAM BRUCE GOODE, of Baltimore, Md.  
GEORGE RICHARD GREAVES, JR., of Baltimore, Md.  
WILLIAM EDWARD GREISER, III, of Baltimore, Md.  
HENRY RONALD GUTSMUTH, of Baltimore, Md.  
EDWARD FREDERICK HAHN, of Baltimore, Md.  
HENRY THOMAS HALL, of Lake Worth, Fla.  
JAMES AMBROSE HALLORAN, of Cumberland, Md.  
JOSEPH JAMES HARTKA, of Baltimore, Md.  
RICHARD THOMAS HECKMAN, of Brookeville, Md.  
JOHN ALLAN HENNEBERGER, of Annapolis, Md.  
CONRAD JOSEPH HEROLD, of Baltimore, Md.  
FRANK NORMAN HILLIS, III, of Finksburg, Md.  
ALTON CHARLES HLAVIN, of Baltimore, Md.  
JAMES LOUDON HOCKENBERRY, of Bethesda, Md.

HOWARD ERWIN HOLLAND, JR., of Baltimore, Md.  
REIN ISE, of Baltimore, Md.  
DONALD ERNEST KANEFSKY, of Baltimore, Md.  
EDWARD JOSEPH KELLY, JR., of Baltimore, Md.  
GEORGE FRANKLIN KNODE, JR., of Williamsport, Md.  
MICHAEL ALEXANDER KOTT, of Baltimore, Md.  
JOHN HEYER LAWRENCE, JR., of Baltimore, Md.  
WILLIAM ALEXANDER LENZ, JR., of Baltimore, Md.  
DUANE GILBERT LEVINE, of Baltimore, Md.  
HOWARD WILSON LOCHTE, of Baltimore, Md.  
ROBERT NEWTON McDONOUGH, of Chaptico, Md.  
RICHARD COLEGATE McSHANE, of Baltimore, Md.  
THOMAS GRASON McWILLIAMS, JR., of Chaptico, Md.  
LEONARDO JOSÉ MONTIEL-ORTEGA, of Caracas, Venezuela  
BARRON WILLIAM MOURING, of Baltimore, Md.  
EMIL CHRISTOPHER MULY, JR., of Baltimore, Md.  
JAMES GARY NELSON, of Crisfield, Md.  
CARL ROBERT NICOLL, of Towson, Md.  
FREDERICK BERNARD OFFERMANN, of Baltimore, Md.  
WILLIAM CHARLES OTTO, JR., of Baltimore, Md.  
ROBERT PEINADO, of El Paso, Tex.  
WALTER DUVAL PENROSE, of Baltimore, Md.  
JAMES REID PFAFFLIN, of Sullivan, Ind.  
STANLEY EDWARD PODLASECK, of Baltimore, Md.  
THEODORE OTTO POEHLER, of Baltimore, Md.  
DAVID MARK PROMISEL, of Silver Spring, Md.  
DANIEL DOMINIC PROTANI, of Baltimore, Md.  
MALCOLM SIDNEY RENBAUM, of Baltimore, Md.  
DONALD CLARKE ROBINSON, of Baltimore, Md.  
WILLIAM FRANCIS SAFFELL, of Baltimore, Md.  
FREDERICK JAMES SCHIROEDER, of Baltimore, Md.  
RAYMOND MARTIN SCHULMEYER, of Baltimore, Md.  
HERBERT SILON, of Brooklyn, N. Y.  
FREDERICK RICHARD SMALL, JR., of Springfield, Pa.  
JAMES WARREN SMITH, of Baltimore, Md.  
THEODORE GOODWIN SMITH, of Baltimore, Md.  
JOHN EDWARD STEERS, of Baltimore, Md.  
JOHN DEWEY SUTHERLAND, of New Canaan, Conn.  
RICHARD CARLTON TAYLOR, of Mt. Airy, Md.  
RICHARD DONALD THAYER, of Carlisle, Pa.  
LEONARD LEWIS TIEMANN, JR., of Baltimore, Md.  
JOHN PURNELL TOWNSEND, of Baltimore, Md.

RICHARD KIMBERLEY TRAUB, of Abingdon, Md.  
ROBERT HENRY TRIMBLE, of Baltimore, Md.  
WALLACE MEADE WERNER, of St. Louis, Mo.  
THOMAS LONG WHEELER, of Baltimore, Md.  
JAMES HUGH WILAND, of Baltimore, Md.

JAMES ERNEST WILSON, of Cumberland, Md.  
JOHN LAWRENCE WORTH, JR., of Baltimore, Md.  
STUART JOSEPH YUILL, of Lanham, Md.  
STANLEY BERNARD ZUCKERMAN, of Baltimore, Md.

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#### GRADUATING WITH HONORS

LOUIS ARTHUR BENTON  
HENRY RONALD GUTSMUTH

HOWARD ERWIN HOLLAND, JR.  
ROBERT NEWTON McDONOUGH

### BACHELORS OF ENGINEERING

GUILLERMO BLANCO RAMIREZ, of Caracas, Venezuela  
GEORGE E. DEDOULIS, of Thebes, Greece  
CARL WHITWORTH FRAZIER, of Stevenson, Md.  
JOEL ALAN FRIEDMANN, of Baltimore, Md.

WILLIAM RUSSELL JOYCE, JR., of Baltimore, Md.  
ROBERT PAUL MELOCIK, of Baltimore, Md.  
JOHN GEORGE VALENTE, of Flushing, N. Y.

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### MASTERS OF SCIENCE IN ENGINEERING

#### WITH TITLES OF ESSAYS

EDWARD VERNON AITKEN, of Philadelphia, Pa., B. S. Davis and Elkins College, 1955. Sanitary Engineering and Water Resources.

A Study of the Biological Utilization of an Aromatic Waste Product.

WILLIAM THOMAS BIEDLER, III, of Baltimore, Md., B. S. Ch. E. Lehigh University, 1951. Chemical Engineering. Flame Studies in a Flat Flame Burner.

ARTURO CASTRO FIGUERES, of San Jose, Costa Rica, B. C. E. University of Costa Rica, 1953. Sanitary Engineering and Water Resources.

Photoelectric Measurements of Turbidity in Water.

PHILIP SALE CLAYTON, of Parkland, Md., B. S. Massachusetts Institute of Technology, 1949. Civil Engineering. A City Plan for Westminster, Maryland.

RAYMOND LINCOLN COSTA, of Baltimore, Md., B. Ch. E. The Cooper Union, 1941. Chemical Engineering.

Magnesium Dichromate and Its Hydrates: Transition and Properties.

GEORGE WALTER CRAMER, JR., of Baltimore, Md., B. E. S. The Johns Hopkins University, 1954. Industrial Engineering.

Analysis of Ward Nursing.

DOMINIC GARDINER BOWLING EDELEN, of Upper Marlboro, Md., B. E. S. The Johns Hopkins University, 1954. Mechanical Engineering.

On a Restricted System of Second Order, Non-Linear Differential Equations.

RICHARD EVERETT EDWARDS, of Baltimore, Md., B. E. The Johns Hopkins University, 1953. Chemical Engineering.

A Study of Eddy Diffusion in the Transition Flow Regime.

WERNER FRANK FURTH, of Washington, D. C., A. B. Harvard University, 1952. Aeronautics.

Hot-Wire Response to a Parabolic Velocity.

BERTRAM CHENEY GOODELL, of Fort Collins, Colo., B. S. Massachusetts State College, 1933; M. F. Harvard University, 1937. Sanitary Engineering and Water Resources.

Instrumentation Applicable to the Gaging of Storm Sewer Discharges.

NELSON HARRY GREENE, of Baltimore, Md., B. S. C. E. Carnegie Institute of Technology, 1949. Civil Engineering.

Laboratory Experiments with Small-Scale Aircraft Arresting Systems.

- PAUL GILBERT HAHN, of Baltimore, Md., B. S. in Aero. E. Purdue University, 1948. Mechanical Engineering.  
A Study of Vibration of Frame Structures.
- WALTER KIRBY HARRISON, JR., of Berkeley Calif., B. S. University of Maryland, 1950. Mechanical Engineering.  
The Plastic-Rigid Beam Theory.
- KAMAL ABD-EL GHAFAR HASSAN, of Cairo, Egypt, B. S. C. E. Cairo University, 1943. Sanitary Engineering and Water Resources.  
The Disinfection of Silver Coated Surfaces.
- JAMES FERDINAND HAUBERT, of Fremont, O., B. S. St. Louis University, 1952. Civil Engineering.  
Some Aspects of Meteorological Modeling in Experimental Hydrodynamics.
- MILTON ALEXANDER HILGER, of Baltimore, Md., B. S. C. E. University of Pittsburgh, 1954. Civil Engineering.  
Scale Model Investigation of the Dynamics of Vehicle Impact Against Highway Guardrail.
- ASU RAM JHA, of Bikaner, India, B. S. E. Aligarh Muslim University, 1952. Electrical Engineering.  
Extra High Voltage Transmission.
- ROBERT LOUIS KONDNER, of Baltimore, Md., B. E. The Johns Hopkins University, 1954. Civil Engineering.  
Stabilization of Fine Grained Soils by Electro-Drains.
- RONALD LEWIS MANN, of Baltimore, Md., B. E. The Johns Hopkins University, 1954. Civil Engineering.  
Maximum Moments for Moving Concentrated Loads on Continuous Beams.
- HARRY ELLSWORTH MONTGOMERY, of Baltimore, Md., B. E. The Johns Hopkins University, 1954. Mechanical Engineering.  
The Measurement of Turbulent Flows in a Space of Revolution.
- KASEM NANDHAKIJ, of Bangkok, Thailand, B. E. The Johns Hopkins University, 1954. Mechanical Engineering.  
Turbulent Heat Transfer in a Boundary Layer with Discontinuous Wall Temperature.
- WILLIAM ERVIN NESBITT, of Whitmarsh, Md., B. S. E. E. The State College of Washington, 1951. Electrical Engineering.  
Characteristic Parameters of Magnetic Amplifiers.
- RENATO GIRAUX PINHEIRO, of Rio de Janeiro, Brazil, Dipl. Eng. University of Brazil, 1949. Sanitary Engineering and Water Resources.  
Photoelectric Measurement of Turbidity in Water.
- WALTER McDONALD SANDERS, III, of Bluefield, Va., B. S. Virginia Military Institute, 1955. Sanitary Engineering and Water Resources.  
The Uptake Characteristics of Oligodynamic Silver on Other Metals.
- JOSEPH FRANCIS SKRIVAN, of Baltimore, Md., B. E. The Johns Hopkins University, 1953. Chemical Engineering.  
Calibration and Performance of An Aerosol Generation System.
- WILLEM VAN HEES, of Haarlem, The Netherlands. Chemical Engineering.  
A Method to Obtain and to Determine Small Quantities of Sulfur Dioxide in Air.
- WILLIAM MAGRUDER WATERS, of Baltimore, Md., B. E. The Johns Hopkins University, 1950. Electrical Engineering.  
Some Practical Applications of the Transversal Filter.
- LEO YOUNG, of Baltimore, Md., A. B. University of Cambridge, 1945; M. A. 1950. Electrical Engineering.  
An Analysis of Resonant Cavities by Matrix Methods.

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## DOCTORS OF ENGINEERING

### WITH TITLES OF DISSERTATIONS

- JOEL IVAN ABRAMS, of Baltimore, Md., B. E. The Johns Hopkins University, 1949; M. S. E., 1950. Civil Engineering.  
Analysis of Two and Three Dimensional Pile Foundations Including Soil Restraint.
- JOHN LESLIE ARTLEY, of Durham, N. C., B. S. E. University of Michigan, 1947; M. S. E., 1948. Electrical Engineering.  
The Evaluation of Ferromagnetic Materials in Terms of the Harmonic Content of Associated Magnetic Fields.
- CARROLL MARLIN BARRACK, of Baltimore, Md., B. E. The Johns Hopkins University, 1950. Electrical Engineering.  
The Effect of Conductor Impedance on the Back-scattering Cross Section of the Cylindrical Dipole Receiving Antenna.
- SUBODH CHANDRA BHATTACHARJEE, of West Bengal, India, B. S. University of Calcutta, 1943; B. E., 1946; B. S. in Eng., The Johns Hopkins University, 1954. Industrial Engineering.  
Economic Analysis of Cutting Tool Cost.



HERMAN BLASBALG, of Bronx, N. Y., B. E. E. City College of New York, 1948; M. S. University of Maryland, 1952. Electrical Engineering.

Theory of Sequential Filtering and its Application to Signal Detection.

SIDNEY FRED BORG, of New York, B. S. C. E. Cooper Union Institute of Technology, 1937; M. C. E. Polytechnic Institute of Brooklyn, 1940. Aeronautics.

Some Contributions to the Wedge-Water Entry Problem.

PAUL JOHN CLAFFEY, of Norwood, N. Y., B. C. E. Clarkson College of Technology, 1943; M. A. American University, University, 1951. Civil Engineering.

Determination of Charges on Publicly-Owned Toll Bridges.

GERALD LEE ESTERSON, of Baltimore, Md., B. E. The Johns Hopkins University, 1951. Electrical Engineering.

The Induction Conductivity Indicator, A New Method for Conductivity Measurement at Sea.

JOSHUA EARL GREENSPON, of Baltimore, Md., B. E. The Johns Hopkins University, 1949. Mechanical Engineering.

Free Vibrations of a Thick Circular Cylinder of Finite Length.

JOBE JENKINS, of Sherman Oaks, Calif., B. S. E. E. Carnegie Institute of Technology, 1941; M. S. E. E., 1942. Electrical Engineering.

The Glow-Arc Transition in Current-Stabilized Electrical Discharges.

DONALD SEIZ JOHNSON, of Collegeville, Pa., B. S. M. E. Lehigh University, 1943; M. S., 1949. Aeronautics.

Turbulent Heat Transfer in a Boundary Layer with Discontinuous Wall Temperature.

SHOZO KADOYA, of Tokyo, Japan, B. S. E. University of Tokyo, 1948; M. S. E. The Johns Hopkins University, 1952. Sanitary Engineering and Water Resources.

An Exploration of Basic Problems in the Use of Radio-activated Bentonite as a Tracer in Water Coagulation Research.

HARRY NEVIN KELLER, of Baltimore, Md., B. E. The Johns Hopkins University, 1950. Chemical Engineering.

A Study of the Electrification of Heptane Flowing through Plastic Tubing.

REYNALDO M. LESACA, of Quezon City, Philippines, B. S. C. E. University of the Philippines, 1943; M. S. S. E. University of North Carolina, 1948. Sanitary Engineering and Water Resources.

The Automatic Siphon in Malaria Control.

ALAN DAVID MORRIS, of Baltimore, Md., B. E. The Johns Hopkins University, 1951. Electrical Engineering.

Analysis of the Direct Current Arc.

YEN-KWEI PIEN, of Shanghai, China, B. S. Chiao-Tung University, 1942; S. M. Harvard University, 1947. Aeronautics.

On Transonic Flow Problems.

SAMUEL JOSHIA RABINOWITZ, of New York, N. Y., B. E. E. City College of New York, 1948; M. E. E. Polytechnic Institute of Brooklyn, 1950. Electrical Engineering.

On the Validity of Fock's Approximation for the Surface Currents Induced by a Plane Wave.

ROCKER THEODORE STATON, JR., of Atlanta, Ga., B. S. Mississippi State College, 1942; M. S. I. E. Georgia Institute of Technology, 1950. Industrial Engineering.

The Design and Installation of a Production Control System for Admitting Private and Semi-Private In-Patients at The Johns Hopkins Hospital.

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## BACHELORS OF SCIENCE

JOSEPH ROBERT AUMILLER, of Baltimore, Md.  
WILLIAM RAYMOND BENTON, of Baltimore, Md.  
EDWARD JOHNSON BOND, of Baltimore, Md.  
HENRY MELVIN BROWN, of Baltimore, Md.  
FRED LECHNER BURKERT, of Baltimore, Md.  
LORENZO GRADY BURTON, JR., of Baltimore, Md.  
JOHN FRANCIS CADOGAN, of Baltimore, Md.  
ROBERT BENSON CARTER, of Baltimore, Md.  
WILLIAM ROSCOE CARTER, JR., of Baltimore, Md.  
FLORENCE CAHN CLARKE, of Pikesville, Md.  
PATRICK FRANCIS CLAUSEY, of Annapolis, Md.  
JOEL COHEN, of Baltimore, Md.  
CARL NORMAN COLLINS, of Baltimore, Md.

DANIEL GILBERT COX, of Baltimore, Md.  
GEORGE KARL DICKEL, JR., of Baltimore, Md.  
THEODORE DRAGICH, of Baltimore, Md.  
WILLIAM CLAGGETT ERSKINE, of Baltimore, Md.  
BERTHA C. FLOM, of Baltimore, Md.  
WILLIAM WEBSTER FORD, of Baltimore, Md.  
JEAN ARENDES FRANKLIN, of Cumberland, Md.  
RENE GAGE BIGELOW FREUND, of Baltimore, Md.  
SAUL HYMAN GENENDLIS, of Baltimore, Md.  
FRANCES KENNY GOODWIN, of Baltimore, Md.  
RICHARD ALBERT HABERCAM, of Glen Burnie, Md.  
CHARLES AUSTIN HOPWOOD, JR., of Ellicott City, Md.  
HOWARD WRIGHT HUBBARD, of Baltimore, Md.

HOWARD MARVIN KATZEN, of Baltimore, Md.  
 CHRISTINA PEACH KLEIN, of Woodstock, Md.  
 HOWARD GWYNN LEASE, of Baltimore, Md.  
 RENA LEVINE, of Baltimore, Md.  
 WARREN LINCOLN MACKENZIE, of Baltimore, Md.  
 ELLEN BINGLEY MANSFIELD, of Baltimore, Md.  
 † BERNARD CHESTON MARTIN, of Baltimore, Md.  
 JUDITH ESTHER MAZOR, of Baltimore, Md.  
 DARIA CECILIA McCABE, of Baltimore, Md.  
 CHARLES JOSEPH McELWEE, of Baltimore, Md.  
 GWENDOLYN VIRGINIA MICHAEL, of Baltimore, Md.  
 WILLIAM ROBERT MORSE, of Warren, Pa.  
 HARRY ASHBY MUELLER, of Towson, Md.  
 CLARA MORREY MURPHY, of Hancock, Mich.  
 JOSEPH RONALD MURPHY, of Baltimore, Md.  
 RICHARD CHARLES MYERS, of Baltimore, Md.  
 SIEGBERT HORST NEUHOF, of Baltimore, Md.  
 BERMMEER EVELYN NEWBERRY, of Pelham, Ga.  
 PRELÉDIA FRIAS D'OLIVEIRA, of Porto, Portugal.  
 PATRICIA ANN OREM, of Baltimore, Md.  
 FLORENCE FISHER OWENS, of Baltimore, Md.  
 HENRY EMSLIE PARKS, of Baltimore, Md.  
 TONY CHARLES PARROTTA, of Aberdeen, Md.  
 HENRY NORBERT PAUL, JR., of Baltimore, Md.  
 GEORGE HARVEY PORTER, III, of Baltimore, Md.  
 M. MARGHERITA POWERS, of Baltimore, Md.

EDWARD THOMAS RASMUSSEN, of Baltimore, Md.  
 JOHN CHARLES RUXTON, of Baltimore, Md.  
 VIRGINIA JOYCE SANBURY, of Jamestown, N. Y.  
 JOHN GORDON SCHMIDT, of Baltimore, Md.  
 JOSEPHINE AILEEN SCHULMEISTER, of Honolulu, Hawaii  
 HENRY DOUGLAS SCRIBA, of Baltimore, Md.  
 MILDRED WEISBERG SINDLER, of Baltimore, Md.  
 KATHERINE LEIGH SMITH, of Baltimore, Md.  
 JACQUELINE SOBLE, of Baltimore, Md.  
 MARCELLA DEAN SPIGELMIRE, of Baltimore, Md.  
 JOHN LAUREL SQUIER, of Aberdeen, Md.  
 CHARLES STEINBOCK, JR., of Baltimore, Md.  
 CHARLES WILBERT SULLIVAN, JR., of Owings Mills, Md.  
 H. DONALD SWEETEN, of Baltimore, Md.  
 RALPH GERALD TARUTIS, of Hampstead, Md.  
 JANE FINCH TWAMLEY, of Baltimore, Md.  
 WILLIAM SMITH ULRICH, JR., of Baltimore, Md.  
 ELSIE ELIZABETH REPP WARRELL, of Baltimore, Md.  
 CLYDE FRANKLIN WILLIAMS, of Baltimore, Md.  
 ELIZABETH RAAB WILLIAMS, of Baltimore, Md.  
 NORMAN JOHN WISE, of Baltimore, Md.  
 FREDERICK HENRY WITZKE, of Baltimore, Md.  
 ROBERT KORTEN WOODYARD, of Baltimore, Md.  
 ABRAHAM YAGOD, of Montreal, Canada  
 ANNE ELIZABETH YANAVICH YOUNG, of Baltimore, Md.

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#### GRADUATING WITH HONORS

THEODORE DRAGICH  
 HOWARD WRIGHT HUBBARD

RICHARD CHARLES MYERS  
 CHARLES STEINBOCK, JR.

#### BACHELORS OF SCIENCE IN NURSING

MARGERIE JANE FUNK ADAMS, of Somerset, Pa.  
 CLARA FRANCES AREHART, of Frankford, W. Va.  
 BARBARA LIANE AVERY, of Wenatchee, Wash.  
 PATRICIA MIRIAM BENNETT, of Columbus, O.  
 HELEN TOOTHMAN BEVARD, of Baltimore, Md.  
 MARGARET ANNE JACKSON BROWN, of Bridgeville, Del.  
 JANICE LEE DUNCAN BURGGRABE, of Springfield, Mo.  
 ESTHER LENORE CAMP, of Grand Island, Nebr.  
 CAROLINE IRENE CARMICHAEL, of Spartanburg, S. C.  
 HAZEL DIANE ROSS CARR, of Vallejo, Calif.  
 DOROTHY ANN CHAMBERS, of Huntington, W. Va.  
 GLORIA C. CONGLETON, of Baltimore, Md.  
 MARGARET RALEIGH COUSAR, of Lubondai, Belgian Congo  
 MARGARET ANNE DAME, of Tallahassee, Fla.  
 ALICE LYNN DOWELL, of Union Grove, N. C.  
 MARY DREHS, of West Reading, Pa.  
 MARY FRANCES FELTMAN, of Washington, D. C.  
 GEORGIA IRVING GASKILL, of Baltimore, Md.  
 PATRICIA ANN GILL, of Hixon, Tenn.

ESTHER RUTH GRANGER, of Chitatal, Quiche, Guatemala  
 PAULINE BRESNAHAN GREEN, of Washington, D. C.  
 JANE MARIE HILKER, of Hatboro, Pa.  
 RENEE SHEILA HOROWITZ, of Dover, N. J.  
 LUCY HOLLAND LAWSON, of Eastville, Va.  
 MARY ELLEN MCCLOSKEY, of Fairmont, W. Va.  
 JEAN MITCHELL, of New Concord, O.  
 NANCY DOUDNA MULLADY, of Dayton, O.  
 BETTY KINNEY OLSON, of Arlington, Va.  
 META MARIA QUERKER, of Dobbs Ferry, N. Y.  
 MARY ALLISON RAHMAN, of Madison, Conn.  
 ALICE KATHERINE REDDING, of Columbus, Ga.  
 M. JOAN KERSTETTER RICE, of Enola, Pa.  
 BARBARA ANNE RUSSELL, of North Canton, O.  
 HELEN BURDICK SLOAT, of Princeton, N. J.  
 MARIE ELIZABETH SOMERS, of Gloucester, Mass.  
 CAROL CHESTER STRAUB, of Pittsburgh, Pa.  
 MARTHA ELIZABETH TOOLE, of New Haven, Conn.  
 KAZUKO TOTTORI, of Honolulu, Hawaii

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† Awarded posthumously.

## BACHELORS OF SCIENCE IN ENGINEERING

JOHN JOSEPH ALBERTINES, of Baltimore, Md.	CHARLES ELMER MANNER, of Baltimore, Md.
GEORGE ROGER BAILEY, of Baltimore, Md.	HERBERT JOHN MILLER, of Baltimore, Md.
WILLIAM FRANK BROWN, of Baltimore, Md.	PHILIP ROBERT MILLER, of Baltimore, Md.
WILLIAM JOHN CRUICKSHANK, of Baltimore, Md.	JAMES ARTHUR MILLS, of Randallstown, Md.
EDWARD WALTER DAVIS, JR., of Baltimore, Md.	KARLIS MINKA, of Baltimore, Md.
ALBERT LAURENCE DEEN, JR., of Baltimore, Md.	THORNTON McDERMOTT MOURING, of Baltimore, Md.
CARMEN FASTIGE, JR., of North Linthicum, Md.	ROBERT VALENTINE ORR, of Baltimore, Md.
JAMES ARTHUR FISHER, of Baltimore, Md.	LOUIS JOHN PIASECKI, of Timonium, Md.
WILLIAM JOHN FRANZ, of Baltimore, Md.	ROBERT WALTER POHL, of Baltimore, Md.
JACK HARRIEL GILBERT, of Baltimore, Md.	THOMAS JOSEPH PUGH, of Baltimore, Md.
LOUIS OLIVER HERRMANN, of Baltimore, Md.	WILLIAM EDWARD PUMPHREY, of Baltimore, Md.
LLOYD M. HESS, of Baltimore, Md.	GEORGE MILTON ROBERTSON, of Baltimore, Md.
EDWARD JOSEPH HOLUB, of Baltimore, Md.	WALTER WILLIAM ROIDE, of Middletown, O.
JAMES THOMAS HUDSON, of Baltimore, Md.	CARL EMANUEL ROSS, of Baltimore, Md.
ROBERT HUGHES HUFNAGEL, of Baltimore, Md.	LEON JOSEPH ROZANKOWSKI, of Baltimore, Md.
IRVIN CARROLL HUGHES, of Rockdale, Md.	HECTOR ORLANDO RUTH, of Baltimore, Md.
CLYDE OSCAR HUMBERT, of Baltimore, Md.	ALEXANDER SALAMON, of Baltimore, Md.
GEOFFREY THRUSTON JONES, of Baltimore, Md.	JOSEPH MICHAEL SATTLER, of Baltimore, Md.
DONALD WILLIAM KAMPHAUS, of Baltimore, Md.	WALTER SCHMITZ, of Baltimore, Md.
MANFRED KAUFMANN, of Baltimore, Md.	LUTHER KIRWIN SCHNEIDER, of Baltimore, Md.
IRVING LEE KIND, of Baltimore, Md.	ERVIN GEORGE SMITH, JR., of Baltimore, Md.
DANIEL JOSEPH KNIGHTON, III, of Baltimore, Md.	RICHARD DARBY SPELLMAN, of Baltimore, Md.
CHARLES HERMAN KOHLER, JR., of Baltimore, Md.	WILLIAM COLEMAN STALEY, of Baltimore, Md.
ALFRED GEORGE KRESSLEIN, of Baltimore, Md.	EDWARD FRANCIS STASIK, of Baltimore, Md.
JAMES G. KULLER, of Baltimore, Md.	GORDON GEORGE TOWNSEND, of Baltimore, Md.
NELSON E. LANDY, of Baltimore, Md.	GEORGE MARIUS TRINITE, JR., of Baltimore, Md.
HERBERT G. O. LEW, of Baltimore, Md.	WILLIAM DEAL WAXTER, III, of Baltimore, Md.
ROBERT CHARLES LYNCH, of Baltimore, Md.	

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### GRADUATING WITH HONORS

ROBERT VALENTINE ORR

## MASTERS OF SCIENCE IN ENGINEERING

### WITH TITLES OF ESSAYS

OTTO BERGER, of Baltimore, Md., B. E. E. City College of New York, 1950. Electrical Engineering. Design and Testing of an Electro-Hydraulic Servo.	JAMES LAUDERDALE JAMES, of Baltimore, Md., B. S. E. University of Texas, 1950. Electrical Engineering. Differential Amplifiers.
DAVID ADAIR ROBINSON, of Glencoe, Md., A. B. Brown University, 1947. Electrical Engineering. Non-Linear Analysis of Backlash and Preload.	

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## MASTERS OF EDUCATION

- ALLYSON LIGHTFOOT BARRETT, of Springfield, O., B. S. Central State College (Ohio), 1944.
- JAMES RICHARD BOWERMAN, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1950.
- ETHEL FORD BRANNAN, of Baltimore Md., B. S. The Johns Hopkins University, 1951.
- IRVIN EPSTEIN, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1950.
- MARGARET ROSE WALDEN FROEHLICH, of Baltimore, Md., A. B. College of Notre Dame of Maryland, 1951.
- IDA RAE GERBER, of Baltimore, Md., B. S. University of Maryland, 1946.
- PEARL WALTER GOETZ, of Baltimore, Md., B. S. The Johns Hopkins University, 1945.
- HOWARD BRUCE GOODRICH, of Baltimore, Md., A. B. The Johns Hopkins University, 1950.
- MARY ELIZABETH GRAYBEAL, of Delta, Pa., B. S. Columbia University, 1947.
- MARVIN LEONARD GREENBAUM, of Baltimore, Md., B. S. The Johns Hopkins University, 1950.
- ANN HENNESSY, of Baltimore, Md., A. B. College of Notre Dame of Maryland, 1951.
- ANNE RHEA JACOBSON, of Baltimore, Md., B. S. University of Maryland, 1946.
- SARAH HELEN KAMAROFF, of Baltimore, Md., B. S. The Johns Hopkins University, 1947.
- ANNA MAE KERBER, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1948.
- PAUL GERHARDT LESSMANN, of Peoria, Ill., A. B. Concordia Seminary, 1942; B. D., 1944.
- MYRTLE LOUISE MARCUM, of Baltimore, Md., A. B. Hood College, 1945.
- JOANNE MURRAY, of Baltimore, Md., B. S. University of Wisconsin, 1943.
- ROBERT FRANCIS PALUMBI, of Baltimore, Md., B. S. Loyola College, 1950.
- VIRGINIA LEE SNYDER PRITCHETT, of Baltimore, Md., B. S. State Teachers College, Towson, Md., 1944.
- DORIS NAIMAN PUMPIAN, of Baltimore, Md., A. B. Washington College, 1950.
- KENNETH HARRY ROCKEY, of Baltimore, Md., B. S. Pennsylvania State College, 1950.
- CHARLES EARL SCHISSLER, of Baltimore, Md., B. E. The Johns Hopkins University, 1927; M. S. E. E., University of Pennsylvania, 1928.
- LLOYD CALVIN SHUE, of Baltimore, Md., A. B. Maryville College, 1946.
- AARON RONALD SMELKINSON, of Baltimore, Md., B. S. The Johns Hopkins University, 1950.
- JAMES ALEXANDER SPANOS, of Baltimore, Md., B. S. Bucknell University, 1949.
- EILEEN HARRIET TROOP, of Baltimore, Md., A. B. University of Toronto, 1928; B. N. Yale University, 1931.
- LEONA PARKS WERNER, of Baltimore, Md., B. S. The Johns Hopkins University, 1940.

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## CERTIFICATES OF ADVANCED STUDY IN EDUCATION

- OLGA VIRGINIA BAWDEN, of Baltimore, Md., A. B. Goucher College, 1943; M. Ed. The Johns Hopkins University, 1951.
- EVERETT EDWARD DAVIS, of Alexandria, Va., A. B. University of Colorado, 1935; M. A. Colorado State College of Education, 1940.
- MARION HOOVER FERGUSON, of Ellicott City, Md., A. B. Western Maryland College, 1927; M. A. The Johns Hopkins University, 1949.
- RUTH ALLEN GOSNELL, of Randallstown, Md., B. S. The Johns Hopkins University, 1941; M. Ed., 1949.
- JESSIE E. KILMORE GREENBAUM, of Baltimore, Md., B. S. The Johns Hopkins University, 1943.
- HELEN ELIZABETH MILLER, of Marion, Pa., B. S. Shippensburg State Teachers College, 1936; M. Ed., The Johns Hopkins University, 1952.
- MICHAEL FRANCIS SMITH, of Baltimore, Md., B. S. Loyola College, 1952; M. Ed., 1954.

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## MASTER OF SCIENCE IN HYGIENE

### WITH TITLE OF THESIS

RUTH AMELIA ALLEN, of Washington, D. C., B. S. Western Maryland College, 1950. Biochemistry.

A Kinetic Study of Serum Alkaline Phosphatase.

(1)

## DOCTORS OF SCIENCE IN HYGIENE

### WITH TITLES OF DISSERTATIONS

LOWELL ADAMS, of Missoula, Mont., A. B. University of California, 1936; M. A., 1939. Pathobiology (Vertebrate Ecology).

An Analysis of a Population of Snowshoe Hares in Northwestern Montana.

VAGN FOLKMANN FLYGER, of Jamestown, N. Y., B. S. Cornell University, 1948; M. S., Pennsylvania State University, 1952. Pathobiology (Vertebrate Ecology).

The Social Behavior and Populations of the Grey Squirrel (*Sciurus Carolinensis* Gmelin) in Maryland.

JAMES HAROLD GILFORD, of Champaign, Ill., B. A., University of Pennsylvania, 1950; M. S., University of Illinois, 1952. Pathobiology (Medical Entomology).

Growth, Virulence and Survival of *Rickettsia Rickettsii* in Various Arthropod Vectors.

BERTRAM WILLIAMS HAINES, of Rochester, Minn., B. S. Arizona State College, 1949. Biostatistics.

Some Procedures of Selecting Records for Retirement.

ANDREW SPIELMAN, of Long Beach, N. Y., B. S., Colorado College, 1952. Pathobiology (Medical Entomology).

The Inheritance of Autogeny in the *Culex Pipiens* Complex of Mosquitoes.

(9)

JOHN SEWALL LAURIE, of Gloucester, Mass., B. S. Oregon State College, 1950. Pathobiology.

A Study of *In Vitro* Carbohydrate Fermentation by Two Cestodes and an Acanthocephalan.

REXFORD DUNBAR LORD, JR., of Reading, Pa., B. A. Pennsylvania State College, 1950; M. S. Agricultural and Mechanical College of Texas, 1953. Pathobiology (Vertebrate Ecology).

An Estimation of Gray Fox Populations.

HENRY JOHN MARK, of Baltimore, Md., B. S. College of City of New York, 1948; M. S., 1949. Public Health Administration (Mental Hygiene).

Studies of Perception in Brain-Injured Children.

BERNARD ROIZMAN, of Philadelphia, Pa., B. A. Temple University, 1952; M. S., 1954. Microbiology.

Quantitative Aspects of APC Virus-HeLa Cell Interaction.

## MASTERS OF PUBLIC HEALTH

MOHAMED MOHAMED AGAMIEH, of Cairo, Egypt, B. Eng., Cairo University, 1932; M. S. E. The Johns Hopkins University, 1949.

DAVID JACOB PHILIP ARRIAS, of Paramaribo, Surinam, M. D. Medical School of Paramaribo, 1951.

JAIME AYALDE VARÓN, of Barranquilla, Colombia, M. D. Javeriana University, Bogota, 1949.

MATHEW JOSEPH BONESE, of Mullica Hill, N. J., D. V. M. University of Pennsylvania, 1942.

JAMES GERARD BORMAN, U. S. Air Force, M. D. University of Buffalo, 1948.

WALTER MAURICE BOWERMAN, U. S. Air Force, A. B. Pasadena College, 1947; M. D. University of Oregon, 1953.

MARY CORNELIA CARNE, of Alexandria, Va., B. S. Catholic University of America, 1941.

WEN PIN CHANG, of Taipei, Taiwan, M. D. National Changchun University, 1945.

PIERRE DESCOEUDRES, of Geneva, Switzerland, M. D. University of Geneva, 1937.

LUKE VICTOR DORAISAMY, of Karur, Madras, India, B. Sc. University of Madras, 1941.

- MARY ELIZABETH EBERLE, of Baltimore, Md., B. S. The Johns Hopkins University, 1949.
- KAY KOHARA EDWARDS, of Baltimore, Md, B. S. Louisiana State University, 1940; M. D., 1943.
- PILARICA MARCELLA EJERCITO, of San Juan, Rizal, Philippines, M. D. University of Santo Tomás, 1952.
- ROBERT ENNIS FARBER, of Baltimore, Md., A. B., Princeton University, 1940; M. D. The Johns Hopkins University, 1943.
- CARLOS EDWARD GARCÍA-ARRESE GAMBIRAZIO, of Lima, Peru, B. S. C. E. Michigan College of Mining and Technology, 1948.
- CLAUS WOLFGANG GÜCKEL, of Worthsee, Germany, M. D. University of Munich, 1945.
- BENJAMIN NICOL HAMMERS, U. S. Air Force, B. S. Muskingum College, 1939; M. D. Temple University, 1943.
- WILLARD ROYCE HAWKINS, U. S. Air Force, B. S. Texas Christian University, 1949; M. D. Baylor University, 1952.
- WALLACE GEORGE HAWORTH, U. S. Air Force, B. S. University of Oregon, 1949; M. D. 1951.
- ROGERS HEDERICK, U. S. Air Force, M. D. University of Arkansas, 1953.
- DEMARIS MAE HOWARD, of San Leandro, California, B. A. Iowa State Teachers College, 1934.
- WILLIAM VEATCH HOWELLS, U. S. Air Force, D. V. M. Agricultural and Mechanical College of Texas, 1947.
- LORENZO LEON GUERRERO IRIARTE, of Agaña, Guam, Diploma, School of Medical Practitioners, U. S. Naval Medical Center, Guam, 1950.
- SELIG HERBERT KATZ, of Towson, Md., B. A. New York University, 1941; M. D., 1944.
- ALFRED DAVY KNEESSY, U. S. Army, B. S. Virginia Military Institute, 1951.
- HILDA LOZIER PRADENAS, of Santiago, Chile, B. S. University of Chile, 1946.
- GEORGE ANDREW MCCOY, U. S. Air Force, B. S. Indiana University, 1937; M. D., 1937.
- ALESSANDRO MARIO MOCHI, of Rome, Italy, M. D. University of Rome, 1946.
- DAVID PERRY MORRIS, JR., U. S. Navy, B. S. University of Toledo, 1944; M. D. University of Pennsylvania, 1948.
- JOAQUIN NUNEZ HERNANDEZ, of San Jose, Costa Rica, M. D. University of Mexico, 1950.
- HIDEHIKO EDWARD OKA, of Tokyo, Japan, M. D. University of Tokyo, 1939.
- ASISCLO ILANA OSTERIA, of Cavite, Philippines, M. D. University of the Philippines, 1937; C. P. H., 1952.
- MARVIN EARL PERKINS, U. S. Public Health Service, B. A. Albion College, 1942; M. D. Harvard University, 1946.
- ARMANDO JOSÉ PETROZZI, of Lima, Peru, M. D. Main National University of San Marcos, 1943.
- ALBERT GIBBONS RANDALL, of Nashville, Tennessee, M. D. University of Tennessee, 1951.
- ANNA GRETA REED, U. S. Army, B. S. Marquette University, 1950.
- HORST CARL REICH, of Ulm, Germany, M. D. University of Goettingen, 1944.
- THOMAS ELMER REICHELDERFER, of Baltimore, Md., B. S. Rutgers University, 1939; M. D. The Johns Hopkins University, 1950.
- ROBERT NATHAN REINER, U. S. Air Force, M. D. Hahnemann Medical College, 1947.
- JACOB BENJAMIN RICHTER, of Philadelphia, Pa., D. V. M. University of Pennsylvania, 1935.
- SHUI-SHEN SHIH, of Taipei, Taiwan, M. D. Taihoku Imperial University, 1945.
- HOWARD ERNEST SMITH, of Austin, Texas, M. D. Baylor University, 1928.
- RUSSELL WILLIAM SUMNIGHT, U. S. Army, D. D. S. University of Southern California, 1940.
- ELLIS RENEAU TAYLOR, U. S. Air Force, B. A. University of Kentucky, 1951; M. D. Washington University, 1953.
- MARGARET WILLIAMS THOMAS, of Childrens Bureau, B. S. Columbia University, 1939; M. A. 1945.
- LÉONCE VERSTUYFT, of Province Orientale, Belgian Congo, M. D. University of Brussels, 1952.
- FRANCIS JOHN WALTERS, U. S. Public Health Service, D. D. S. University of Minnesota, 1939.
- KUO-YI WANG, of Taipei, Taiwan, B. M. National Taiwan University, 1948.
- MILTON JEROME ZISES, U. S. Public Health Service, B. S. University of Arkansas, 1936; L. R. C. P., L. R. C. S., (Edinburgh) L. R. F. P. and S., (Glasgow) St. Mungo's College of Medicine, 1943.

## DOCTORS OF PUBLIC HEALTH

### WITH TITLES OF THESES

GEORGE WILLS COMSTOCK, U. S. Public Health Service, B. S. Antioch College, 1937; M. D. Harvard University, 1941; M. P. H. University of Michigan, 1951. Epidemiology.

An Epidemiologic Study of Blood Pressure Levels in a Bi-racial Community in the Southern United States.

ALI MOHAMED SAYED ABDEL KAWI, of Cairo, Egypt, M. B., B. Ch. Kasr-el-aini Faculty of Medicine, Cairo University, 1950; M. P. H. The Johns Hopkins University, 1954. Public Health Administration (Mental Hygiene).

A Study of the Association of Factors of Pregnancy, Parturition and the Neonatal Period with the Development of Reading Disorders, as a Neuropsychiatric Problem in Childhood.

CHARLES MURRAY WYLIE, of Lexington, Va., M. B., Ch. B. University of Glasgow, 1947; M. P. H. The Johns Hopkins University, 1952. Public Health Administration. Multiple Screening in Baltimore.

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## DOCTORS OF MEDICINE

RICHARD ATHERTON BARTLETT, of Groveland, Mass., S. B., Worcester Polytechnic Institute, 1949; M. S., 1950.

JOHN LAURENS BATEMAN, of Ansonia, Conn., S. B. Massachusetts Institute of Technology, 1946.

EDWARD J. BATTERSBY, of Corona, Long Island, N. Y., S. B. Saint John's University, New York, 1952.

JOSEPH ANDREAS BAUER, JR., of Strongsville, Ohio, S. B., Baldwin-Wallace College, 1952.

ARTHUR HAROLD BRIGGS, JR., of Clifton, N. J., A. B. The Johns Hopkins University, 1952.

EDWIN CHAMBERLAYNE BROCKENBROUGH, JR., of Baltimore, Md., S. B. College of William and Mary, 1952.

BEAURY COOK BURNS, JR., of Heidelberg, Miss., S. B. University of Alabama, 1950.

RICHARD CLIVE BYRON, of East McKeesport, Pa., S. B. Mount Union College, 1952.

CHARLES COLOCCOCK JONES CARPENTER, JR., of Birmingham, Ala., A. B. Princeton University, 1952.

FRANKLIN BRUCE DAVIS, of Ceres, Calif., A. B. Fresno State College, 1951.

DAVID CAMPBELL DEAN, of Snyder, N. Y., A. B. Bowdoin College, 1952.

KENNETH FRANK DUBACH, of Springfield, Mo., A. B., University of Kansas, 1952; S. B. University of Missouri School of Medicine, 1954.

HERSCHEL LEONARD ESTEP, of Roda, Va., A. B. King College, 1952.

ELIZABETH BOWDITCH EUSTIS, JR., of Milton, Mass., A. B. Vassar College, 1947.

LOUIS ARTHUR FINNEY, of Berwyn, Ill., A. B. Virginia Military Institute, 1952.

ROBERT BARR FLINN, of Wilmington, Del., A. B. Princeton University, 1952.

ALICE ELIZABETH FRUEHAN, of Nutley, N. J., S. B. University of Rochester, 1950.

ROBERT STEPHEN GANELIN, of Beaver Falls, Pa., S. B. Geneva College, 1952.

DONALD STUART GANN, of Baltimore, Md., A. B. Dartmouth College, 1952.

RICHARD EUGENE GLASS, of Brooklyn, N. Y., A. B. Princeton University, 1952.

CHARLES BRYSON GURNEY, of Oak Ridge, Tenn., A. B. Erskine College, 1950.

MANSOOR UL HASSAN, of Lahore, Pakistan, S. B. University of Punjab, Pakistan, 1943; M. S., 1945; Ph. D. University of California, 1952.

JAMES FRANCIS HITSSELBERGER, JR., of Washington, D. C., A. B. Georgetown University, 1952.

FRANKLIN THEODORE HOAGLUND, of San Francisco, Calif., A. B. University of California, 1952.

JOHN O'NEAL HUMPHRIES, of Columbia, S. C., A. B. Duke University, 1952.

ROBERT ALEXANDER JOHNSTON, JR., of Houston, Tex., A. B. Princeton University, 1952.

LOWELL RESTELL KING, of Salem, Ohio, A. B. The Johns Hopkins University, 1952.

S. WAYNE KLEIN, of Canonsburg, Pa., S. B. University of Pittsburgh, 1949; M. S., 1952.



- JEROME KOWAL, of Forest Hills, N. Y., S. B. Tufts College, 1952.
- LIONEL BOON QUEE LEE, of Singapore, Malaya, S. B., Western Maryland College, 1952.
- THORA WAI-LIEN LEE, of Portland, Ore., A. B. Vassar College, 1952.
- EVAN FLORIAN LINDBERG, of San Antonio, Tex., A. B. Baylor University, 1952.
- JOHN IRVIN MANDLER, of Roslyn, Pa., A. B. The Johns Hopkins University, 1952.
- JAMES ARTHUR MCFARLAND, of Rutherfordtown, N. C., S. B. Davidson College, 1952.
- PHILIP ROBERT BACHE MCMASTER, of Kennebunk, Me., A. B. Princeton University, 1952.
- ERIC SABBATON MERRIFIELD, of Maplewood, N. J., A. B. Princeton University, 1952.
- ALICE JANE NOVIKOFF, of Baltimore, Md., A. B. Stanford University, 1950.
- DAVID PATON, of St. James, Long Island, N. Y., A. B. Princeton University, 1952.
- FRANKLIN VAIL PEALE, JR., of Darien, Conn., A. B. Harvard College, 1952.
- PAUL EARL PECKHAM, of Fort Wayne, Ind., S. B. University of Notre Dame, 1949; M. S. University of Wisconsin, 1952.
- ROBERT LOUIS PERKINS, of Clarksburg, W. Va., A. B. West Virginia University, 1953; S. B. West Virginia University School of Medicine, 1954.
- ALEXANDER FERDINAND PETZINGER, JR., of Ben Lomond, Calif., A. B. Stanford University, 1948; A. M., 1948.
- DORIS HELEN POMERANCE, of Brooklyn, N. Y., A. B. Smith College, 1952.
- WILLIAM LEE PRITCHARD, of Morristown, N. J., A. B. Princeton University, 1952.
- ABDUL NABI RAHMAN, of Ahwaz, Iran, A. B. The Johns Hopkins University, 1952.
- ELSPETH MONRO REAGAN, of New York, N. Y., A. B. Swarthmore College, 1952.
- EDWARD REICH, of Montreal, Canada, S. B. McGill University, 1952.
- JOSEPH HYRAM ROE, JR., of Washington, D. C., A. B. Yale University, 1950; M. A. George Washington University, 1951.
- FRANCES ROSS, of New York, N. Y., A. B. Vassar College, 1952.
- ROY PATTERSON RUSSELL, of Bronxville, N. Y., A. B. Princeton University, 1952.
- ROBERT BARRY RUTHERFORD, of Edmonton, Canada, A. B. The Johns Hopkins University, 1952.
- WILLIAM PAUL SADLER, JR., of Minneapolis, Minn., A. B. Princeton University, 1952.
- LOUIS HUTZLER SCHAFER, of Baltimore, Md., A. B. Harvard College, 1952.
- THEODORE HELMUTH SCHWEDENBERG, of Seaford, Del., A. B. University of Wisconsin, 1952.
- HUNTINGTON SHELDON, of Amagansett, Long Island, N. Y., A. B. McGill University, 1951.
- JAMES DONALD SMILEY, of Lubbock, Tex., S. B. Texas Technological College, 1952.
- HAMILTON OTHANEL SMITH, of Urbana, Ill., A. B. University of California, 1952.
- GILBERT BERNARD SNYDER, of Silver Spring, Md., A. B. The Johns Hopkins University, 1952.
- DAVID STEINMAN, of New York, A. B. Harvard College, 1947; S. B. Columbia University, 1949.
- KURTZ BISHOP STOWERS, of Natchez, Miss., S. B. Mississippi State College, 1952.
- FRANK JOSEPH TAKACS, of Easton, Conn., A. B. The Johns Hopkins University, 1952.
- ENG MENG TAN, of Penang, Malaya, A. B. The Johns Hopkins University, 1952.
- JOHN DAVID THOMAS, of Clarksburg, W. Va., A. B. University of Pennsylvania, 1952.
- DEAN GALE WATERS, of Gainesville, Fla., S. B. Kansas State College, 1953.
- TREVOR FRANKLIN WATSON, of Quincy, Ill., S. B. Kansas State College, 1952.
- ROBERT LEGATE WEBB, of Minneapolis, Minn., A. B. Yale University, 1952.
- JAMES MILTON YORK, of Princeton, N. J., S. B. Randolph-Macon College, 1952.
- EMIR AHMAD ZIKRIA, of Kabul, Afghanistan, A. B. American University of Beirut, 1950.
- HOWARD SMYLYE ZUCKER, of Brooklyn, N. Y., A. B. Princeton University, 1952.



## MASTERS OF ARTS

### IN THE SCHOOL OF ADVANCED INTERNATIONAL STUDIES

- HARRY WILLIAM ALTER, of Tarentum, Pa., A. B. Yale College, 1954.
- JACK BARANSON, of Suitland, Md., A. B. University of Wisconsin, 1951.
- HERBERT JOHN BLITZ, of New York, N. Y., A. B. Hamilton College, 1954.
- OLIVER EDMUND CLUBB, of St. Paul, Minn., A. B. University of Minnesota, 1951.
- ROBERT DEVILLE COLLINS, of Piedmont, Calif., A. B. University of California, 1954.
- ISABELLE CARTER CROCKER, of Fitchburg, Mass., A. B. Smith College, 1951.
- GEORGE WILLIAM CULBERSON, of Pittsburgh, Pa., A. B. Allegheny College, 1954.
- GEORGE EDWARD DUBÉ, of Fall River, Mass., A. B. Holy Cross College, 1953.
- NEDA ANNA-MARIA FRANGES, of New York, N. Y., A. B. Hunter College, 1954.
- JOHN GILBERT HARTLEY, of Silver Spring, Md., A. B. The Johns Hopkins University, 1950.
- ELIZABETH BRADLEY HUBBARD, of La Porte, Tex., A. B. Smith College, 1954.
- JAN LEA KATER, of Houston, Tex., A. B. The Principia, 1953.
- JOANN LEWINSON, of Oklahoma City, Okla., A. B. Stanford University, 1952.
- BELLE LOUISE LIFSON, of Hillside, N. J., A. B. Mount Holyoke College, 1954.
- SARAH JANE LITTLEFIELD, of Pasadena, Calif., A. B. Pomona College, 1955.
- DOUGLAS BOYD MARTIN, JR., of Chicago, Ill., A. B. University of Chicago, 1954.
- WILLIAM ROBERT MCCARTIN, of Baltimore, Md., A. B. The Johns Hopkins University, 1954.
- KENNETH LEE NEFF, of Denver, Colo., A. B. University of Denver, 1954.
- MORRIS ROBERT NELSON, JR., of Albany, Ga., A. B. Lehigh University, 1952.
- MALCOLM N. QUINT, of Washington, D. C., A. B. Antioch College, 1953.
- EDGAR FARRAR RICHARDSON, of Fortuna, Calif., A. B. Stanford University, 1954.
- WILLIAM MILFORD RIDEOUT, JR., of Port Angeles, Wash., A. B. Stanford University, 1951.
- HILDEGARD THUN SCHEFFEY, of Merion Station, Pa., A. B. Mount Holyoke College, 1954.
- HANS WERNER SCHOENBERG, of Washington, D. C., A. B. Wittenberg College, 1953.
- JOE JASPER SCONCE, of Washington, D. C., A. B. Washington and Lee University, 1951.
- DANIEL PEYTON SULLIVAN, of Arlington, Va., A. B. Princeton University, 1951.
- DONALD EMERY WEATHERBEE, of South Portland, Me., A. B. Bates College, 1954.

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## DOCTOR OF PHILOSOPHY

### IN THE SCHOOL OF ADVANCED INTERNATIONAL STUDIES

#### WITH TITLE OF DISSERTATION

ROBERT WOODWARD KERWIN, of St. Louis, Mo., A. B. Dartmouth College, 1943; M. A. The Johns Hopkins University, 1947.

Etatism and the Industrialization of Turkey.

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## MASTERS OF ARTS

### WITH TITLES OF ESSAYS

- ELIZABETH ANN LARSON BECKER, of Wilmington, Del., A. B. Wellesley College, 1946. English.
- NATALIE HARRIS BLUESTONE, of Baltimore, Md., A. B. Brandeis University, 1953. Philosophy.
- JAY MELVIN BLUMENTHAL, of Baltimore, Md., A. B. The Johns Hopkins University, 1955. Business and Industrial Management.  
Some Aspects of Direct Adjustments to Retained Earnings.
- RAY LEROY CLEVELAND, of National City, Calif., A. B. Westmont College, 1951. Oriental Seminary.
- JOHN EDWARD COLMAN, C. M., of Philadelphia, Pa., A. B. St. Joseph's College, Pennsylvania, 1943. Education.  
History of the Administration at St. John's University, New York.
- ALFRED JAMES CORDES, of Omaha, Nebr., A. B. Xavier University, 1954. Romance Languages.
- ALTON CHARLES DONSBACH, of Denton, Tex., A. B. Concordia Seminary, 1945; B. S. The Johns Hopkins University, 1949. Writing Seminars.  
Pilgrim Wine and Other Stories.
- ROLAND ELLSWORTH ENGLISH, of Baltimore, Md., A. B. The Johns Hopkins University, 1948. History.
- AVROM HIRSH FLEISHMAN, of Irvington, N. J., A. B. Columbia University, 1954. English.
- GLENN ELTON FULMER, of Baltimore, Md., A. B. Oberlin College, 1949. Chemistry.
- PAUL NEWCOMB GOODWIN, of Baltimore, Md., B. S. Harvard University, 1948. Physics.  
Beta Ray Dosimetry with Plastic Scintillators.
- MANLY HOWELL GRISWOLD, of Baltimore, Md., A. B. Columbia University, 1949. Education.  
Relationships of Age and Success in Foreign Language Study.
- RAËL JEAN ISAACS, of New York, N. Y., A. B. Barnard College, 1954. English.
- SUSUMU ISHIWATA, of Tokyo, Japan. Physics.  
Unified Field Theory.
- ROGER ALEXANDER KAUFMAN, of Baltimore, Md., A. B. The George Washington University, 1954. Psychology.  
The Effect of Verbal Context on the Serial Position Curve in Immediate Recall.
- MARY C. KEELTY, of New York, N. Y., A. B. Barnard College, 1955. Chemistry.
- RITA LAWS KLEINSPEHN, of Baltimore, Md., A. B. Vassar College, 1946. Chemistry.
- AUDREY LORRAINE MACDONALD, of East Hartford, Conn., A. B. Brown University, 1955. Philosophy.  
The Shadow of the Soul.
- ALBERT WAYNE MAGNITZKY, of Washington, D. C., B. S. Tulane University, 1946. Oceanography.
- STANLEY IRA MARGULIES, of Baltimore, Md. Biological Sciences.  
A Study of Adenine Deaminase from *Torulopsis utilis*.
- THOMAS JOSEPH MATHIA, of Strabane, Pa., B. S. Carnegie Institute of Technology, 1954. Chemistry.
- PAUL EDWARD MCADAM, of Baltimore, Md., A. B. The Johns Hopkins University, 1955. Romance Languages.
- FRANCIS JOSEPH MCGUIRE, of Pasadena, Md., B. S. Loyola Colleg, 1954. Chemistry.
- THEODORE IVES MESSENGER, JR., of Washington, D. C., A. B. Yale University, 1950. Philosophy.
- HELGA NEHRKORN, of Kassel, Germany. Classics.
- JON PARK O'DONNELL, of Silver Spring, Md., A. B. Duke University, 1954. Oriental Seminary.
- FRED MILTON PALACE, of New York, N. Y. Biological Sciences.  
The Effect of Centrifugation on Irradiated Microspore Chromosomes of *Tradescantia paludosa*.
- WILFORD NOEL PAUL, of Baltimore, Md., A. B. Wheaton College, 1948; B. S. The Johns Hopkins University, 1953. Philosophy.
- ROBERT ALAN PEDRICK, of Glassboro, N. J., A. B. The Johns Hopkins University, 1953. Oceanography.
- WILLIAM ARTHUR PIZANTE, of Park Forest, Ill., A. B. The Johns Hopkins University, 1954. Philosophy.  
Being and Value.
- ARNOLD SHAPIRO, of Paterson, N. J., A. B. Rutgers University, 1955. English.
- CAROLYN LEE SMITH, of Baltimore, Md., A. B. Sweet Briar College, 1953. Romance Languages.
- HARRIET ELAINE SMITH, of Baltimore, Md., A. B. Baldwin-Wallace College, 1951. Art.  
Georges Roualt's Illustrations for Charles Baudelaire's *Les Fleurs du Mal*.
- ROBERT ERNEST SMITH, III, of Baltimore, Md., A. B. Washington and Lee University, 1953. Writing Seminar.  
Collection of Short Stories.

- SHLOMO ZVI STERNBERG, of New York, N. Y., A. B. The Johns Hopkins University, 1953. Mathematics.
- EUGENIA ADELE STIEMKE, of Baltimore, Md., A. B. Valparaiso University, 1945. Education.
- Lack of Correlation between Good-Teacher Traits and Effectiveness in Teaching.
- ELIZABETH VAIDEN STONE, of Baltimore, Md., A. B. Goucher College, 1952. Aesthetics of Literature.
- A Study of the Serious Fiction and Travel Books of Graham Greene.
- JOHN FORREST STRICKLAND, of Baltimore, Md., B. S. Ursinus College, 1954. Psychology.
- An Experimental Investigation of the Relationship between Psychasthenia and Ego-Strength.
- WILLIAM FREDERICK WABER, JR., of Baltimore, Md., B. S. Ashland College, 1951; A. B. Kenyon College, 1954. Philosophy.
- The Role of Reason in Hume's Ethics.
- JAMES WILLIAM WINCHESTER, of Washington, D. C. Oceanography.

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## DOCTORS OF PHILOSOPHY

### WITH TITLES OF DISSERTATIONS

- DANIEL E. APPLEMAN, of Pacific Palisades, Calif., B. S. California Institute of Technology, 1952; M. A. The Johns Hopkins University, 1954. Geology.
- The Crystal Structures of Liebigite and Johannite.
- MARTIN JEAN BAILEY, of Taft, Calif., A. B. University of California, Los Angeles, 1951; M. A. The Johns Hopkins University, 1953. Political Economy.
- The General Equilibrium Foundations of Classical and Keynesian Theory.
- JOHN WESLEY BALDWIN, of Baltimore, Md., A. B. Wheaton College, 1950; M. A. Pennsylvania State College, 1951. History.
- The Medieval Theories of the Just Price, the Twelfth and Thirteenth Centuries.
- ALLEN WILKINS BECKER, of Austin, Tex., A. B. University of South Carolina, 1948; M. A. University of Tennessee, 1950. English.
- Ellen Glasgow: Her Novels and Their Place in the Development of Southern Fiction.
- FERNAND DENIS BEDARD, of Baltimore, Md., B. S. Fordham College, 1951. Physics.
- Studies of Electronic Transfer in Superconductors.
- MICHAEL A. BENDER, of New York, N. Y., B. S. University of Washington, 1952. Biology.
- Studies on the Ring-X Chromosomes of *Drosophila melanogaster*. I. Crossover Relationships in the Chromosomes  $X^{c1}$ ,  $y$  and  $In(1) X^{c1}$ ,  $y$ . II. The Comparative Effects of Hard and Soft Ionizing Radiations on Male and Female Ring-X *Drosophila* in Air and Nitrogen.
- GEORGE BLUESTONE, of Baltimore, Md., A. B. Harvard University, 1949; M. F. A. State University of Iowa, 1951. Aesthetics of Literature.
- Film Versions of the Novel.
- EDWARD CAHOON BOOTH, of Baltimore, Md., A. B. Princeton University, 1950. Physics.
- A Study of the Gamma Rays of Ionium ( $Th^{230}$ ).
- STUART WEEMS BRUCHEY, of Baltimore, Md., A. B. The Johns Hopkins University, 1943; M. A., 1946. History.
- Robert Oliver, Merchant of Baltimore—1783-1819.
- ROBERT MAIN BURTON, of Bethesda, Md., B. S. University of Maryland, 1950; M. S. Georgetown University, 1952. Biology.
- Pyridine Nucleotide Chemistry.
- JOHN WALKER COUGHLIN, of Edmonton, Canada, A. B. University of Alberta, 1948; B. Com., 1949; M. A. University of Western Ontario, 1952. Political Economy.
- Accounting and Changing Prices.
- TOM EDWARD DAVIS, of Akron, Ohio, A. B. Tufts College, 1950; M. A. The Johns Hopkins University, 1952. Political Economy.
- Development Programs and the Wealth of Poor Nations.
- JOSEPH JOEL DEVAULT, S. J., of Baltimore, Md., B. Lit. Xavier University, 1940; M. A. Loyola University (Ill.), 1943. Oriental Seminary.
- A Study of Early Hebrew Personal Names.
- WILLIAM KAILER DUNN, of Baltimore, Md., A. B. Catholic University of America, 1934; M. A., 1935; M. Ed. The Johns Hopkins University, 1954. Education.
- The Decline of the Teaching of Religion in the American Public Elementary School, 1776-1861.



- RASHI FEIN, of Baltimore, Md., A. B. The Johns Hopkins University, 1948. Political Economy.  
Factors Influencing the Location of North Carolina General Medical Practitioners: A Study in Physician Distribution.
- JOSEPH AUGUSTINE FITZMYER, S. J., of Baltimore, Md., A. B. Loyola University (Ill.), 1943; M. A., 1945. Oriental Seminary.  
The Syntax of Imperial Aramaic Based on the Documents Found in Egypt.
- ROBERT FORSTER, of Baltimore, Md., A. B. Swarthmore College, 1949; M. A. Harvard University, 1951. History.  
The Wealth of the Toulousean Nobility 1750-1789.
- BLANCHE POTTER GEER, of Baltimore, Md., A. B. Mount Holyoke College, 1942; M. Ed. The Johns Hopkins University, 1953. Education.  
A Statistical Study of the Class Origin and Social Participation of Teachers.
- EDWARD GLASSMAN, of Brooklyn, N. Y., A. B. New York University, 1949; M. S., 1951. Biology.  
Studies on the Tryptophan Metabolism of *Drosophila*: Kynurenine Formamidase and Aminoquinone Pigments.
- BEN ARTHUR GREEN, JR., of Tuscaloosa, Ala., B. S. University of Alabama, 1949; M. S., 1950. Physics.  
Lifetimes of Positrons in Condensed Materials.
- ROBERT JOHN GROSS, of Baltimore, Md., A. B. The Johns Hopkins University, 1952; M. A., 1953. Chemistry.  
A Crystallographic and Physicochemical Study of Tetrametaphosphate.
- ROSA MEYERSBURG GRYDER, of Baltimore, Md., B. S. Bucknell University, 1947; M. S. Yale University, 1949. Biology.  
Alkaline Phosphatase of the Rat Kidney.
- LOUIS ALTON HALL, of Wilmington, N. C., B. S. Wake Forest College, 1950. Physics.  
Fluorescent Lifetimes of Some Transition Elements in Crystalline Compounds.
- MICHAEL GARIBALDI HALL, of Princeton, N. J., A. B. Princeton University, 1949. History.  
Edward Randolph and the American Colonies, 1676-1703.
- ROBERT PAUL HAMLEN, of Chatham, N. J., B. S. Lafayette College, 1951; M. A. The Johns Hopkins University, 1953. Chemistry.  
Chlorine-35 Nuclear Quadrupole Resonance; Boron Analysis by Neutron Absorption.
- JOHN EDWARD HARDY, of Baton Rouge, La., A. B. Louisiana State University, 1944; M. A., State University of Iowa, 1946. Aesthetics of Literature.  
Some Problems in the Explication of Poetry.
- LOUIS R. HARLAN, of Commerce, Tex., A. B. Emory University, 1943; M. A. Vanderbilt University, 1947. History.  
Separate and Unequal: Public School Campaigns and the Race Issue in the Southern Seaboard States, 1901-1915.
- LEON JOSEPH HEROUX, of Towson, Md., A. B. Harvard University, 1949. Physics.  
Absorption Spectra and Zeeman Effects of Neodymium Salts at 4.2° K.
- PHILIP INGRAM HERZBRUN, of Alexandria, Va., A. B. The George Washington University, 1946. English.  
Joseph Beaumont's *Psyche* and Seventeenth Century Poetic Traditions.
- CLIFFORD ANDRAE HOPSON, of Mill Valley, Calif., B. S. Stanford University, 1951. Geology.  
Petrology and Structure of the Chelan Batholith, near Chelan, Washington.
- KARL BRUCE JACOBSON, of Sioux Falls, S. Dak., B. S. St. Bonaventure College, 1948. Biology.  
Factors Influencing the Levels of Pyridine Nucleotides in Animal Tissues.
- MURRAY CHILVERS KEMP, of Baltimore, Md., B. Com. The University of Melbourne, 1947; A. B. 1948; M. A. 1949. Political Economy.  
Aspects of the Theory of International Trade under Conditions of Unemployment.
- RICHARD EUGENE KENT, of Annapolis, Md., M. A. The Johns Hopkins University, 1952. Oceanography.  
Turbulent Diffusion in a Sectionally Homogeneous Estuary.
- GEORGE MILLER LANDES, of Kansas City, Mo., A. B. University of Missouri, 1949; B. D. McCormick Theological Seminary, 1952. Oriental Seminary.  
A History of the Ammonites.
- THOMAS EUGENE LARSON, of Baltimore, Md., A. B. Lewis and Clark College, 1950; M. A. The Johns Hopkins University, 1951. Chemistry.  
The Kinetics of Two Isotopic Exchange Reactions between Diborane and Dihydropentaborane.
- JOSEPH LINTZ, JR., of New York, N. Y., A. B. Williams College, 1942; M. S. University of Oklahoma, 1947. Geology.  
The Fauna of the Ames and Brush Creek Shales of the Conemaugh Formation of Western Maryland.
- FREDERICK WIESSNER LIPPS, JR., of Baltimore, Md., A. B. The Johns Hopkins University, 1950. Physics.  
A Statistical Theory of Multiple Meson Production.
- MARY HOPE MACDONALD, of Baltimore, Md., B. S. University of Denver, 1947; M. S., 1949. Chemistry.  
A Study of the Diffusion of Alkali Metal Ions through



- Inorganic Membranes and also the Emission of Alkali Metals in the Oxy-acetylene Flame.
- STEPHEN JOSEPH MANNING, of San Diego, Calif., A. B. Catholic University of America, 1952. English.  
Ten Middle English Mary-Lyrics.
- ROBERT HARRISON MARSH, of San Diego, Calif., A. B. San Diego State College, 1950; M. S. University of Oregon, 1952. Aesthetics of Literature.  
Major Conceptions of Criticism and Taste in England from Dryden to Hume.
- WARNER EVERETT MILLS, JR., of Austin, Tex., A. B. Dartmouth College, 1943; M. A. Yale University, 1948. Political Science.  
The Public Career of a Texas Conservative: A Biography of Ross Shaw Sterling.
- JACK USHER MOWLL, of Baltimore, Md., A. B. The Johns Hopkins University, 1948. Geography.  
The Economic Development of 18th Century Baltimore.
- JAMES WILLIAM OGILVIE, JR., of Orlando, Fla., B. S. Rollins College, 1950; M. A. The Johns Hopkins University, 1952. Chemistry.  
A Study of Dithizone and Its Oxidation Products.
- ALLAN HOWARD ORRICK, of Tulsa, Okla., A. B. University of Tulsa, 1951; M. A., 1952. English.  
A History of the Generic Names for the Germanic Settlers in the British Isles.
- ROBERT EVERETT ALLEN PALMER, II, of Boise, Idaho, A. B. The Johns Hopkins University, 1953. Classics.  
Attitudes of Livy toward the Incumbents of the Chief Roman Magistracies.
- GEORGE N. PIPIRINGOS, of Denver, Colo., A. B. University of Wyoming, 1947; M. A., 1948. Geology.  
Uranium-Bearing Coal in the Central Part of the Great Divide Basin, Sweetwater County, Wyoming.
- PIERRE PROULX, S. J., of Montreal, Canada, A. B. University Laval, 1946. Oriental Seminary.  
Ugaritic Verse Structure and the Poetic Syntax of Proverbs.
- WILLIE MATHEWS REAMS, JR., of Richmond, Va., B. S. University of Richmond, 1951. Biology.  
An Experimental Study of the Development of Pigment Cells in the Coelomic Lining of the Chick Embryo.
- JOSEPH VINCENT RIDGELY, of Montgomery, Ala., A. B. University of Florida, 1942; M. A. The Johns Hopkins University, 1948. English.  
William Gilmore Simms: The Novelist as Southerner.
- JOHN STEVENS SCHLEE, of Bethesda, Md., B. S. University of Michigan, 1950; M. A. University of California, Los Angeles, 1953. Geology.  
Sedimentological Analysis of the Upland Gravels of Southern Maryland.
- JOHANNES COENRAAD SEVERIENS, of Chatham, N. J., A. B. Harvard University, 1951. Physics.  
Lifetime Measurements of Excited States in Light Nuclei.
- HERSCHEL COCHRAN SUDDUTH, of Tupelo, Miss., B. S. University of Oklahoma, 1937; M. S., 1938; A. B., 1940; M. D., 1942. Physiological Chemistry.  
D- $\beta$ -hydroxybutyric Dehydrogenase of Animal Tissues.
- ROBERT GEORGE SUTTON, of Rochester, N. Y., A. B. University of Rochester, 1948; M. S., 1950. Geology.  
The Stratigraphy of the Naples Group (Devonian) in Western New York.
- JAMES ROLAND TRAVIS, of Baltimore, Md., B. S. Tufts College, 1949. Physics.  
The Decay of Excited Rate-Gas Atoms in the Afterglows of Gas Discharges.
- CARROLL VANCE TRUSS, of Miami, Fla., A. B. Birmingham-Southern College, 1941; M. S. University of Miami, 1950. Psychology.  
Chromatic Flicker Fusion Frequency as a Function of Chromaticity Difference.
- ELDRED FRANK TUBBS, of Orchard Park, N. Y., B. S. Carnegie Institute of Technology, 1949. Physics.  
Phenomena Associated with the Helium Afterglow.
- WILLIAM JOHNSON YOUNG, of Georgetown, Mass., A. B. Amherst College, 1950; M. A., 1952. Biology.  
Studies on Radiation-Induced Lethal Effects in *Drosophila melanogaster* Females. I. Sex-linked Recessive Lethal Mutations. II. The Effect of Oxygen Concentration and Dose Fractionation on Radiation-Induced Egg Mortality.





