

PROCEEDINGS

of the

**Indiana Academy
of Science**

CUMULATIVE INDEX

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1971-1980

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by

BENJAMIN MOULTON

Indiana Academy of Science

Indiana State Library

1982

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1975	John B. Patton	Indiana Geological Survey
1976	Donald J. Cook	DePauw University
1977	Clarence F. Dineen	St. Mary's College
1978	Jerry J. Nisbet	Ball State University
1979	J. Dan Webster	Hanover College
1980	Robert E. Henderson	Indianapolis Center for Advanced Research

SECRETARIES

1971	J. Dan Webster	Hanover College
1972	J. Dan Webster	Hanover College
1973	Jerry J. Nisbet	Ball State University
1974	Jerry J. Nisbet	Ball State University
1975	Robert E. Van Atta	Ball State University
1976	Robert E. Van Atta	Ball State University
1977	Robert E. Van Atta	Ball State University
1978	Robert E. Van Atta	Ball State University
1979	Robert E. Van Atta	Ball State University
1980	John H. Meiser	Ball State University

PRESIDENT-ELECT

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1974	John B. Patton	Indiana University
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1976	Clarence F. Dineen	St. Mary's College
1977	Jerry J. Nisbet	Ball State University
1978	J. Dan Webster	Hanover College
1979	Robert E. Henderson	Indianapolis Center for Advanced Research
1980	Ralph Llewellyn, Jr.	Indiana State University Purdue University

TREASURERS

1971	Damian V. Schmelz	St. Meinrad College
1972	Clyde R. Metz	Purdue University
1973	Clyde R. Metz	Purdue University
1974	Clyde R. Metz	Purdue University
1975	Clyde R. Metz	Purdue University
1976	Stanley L. Burden	Taylor University
1977	Stanley L. Burden	Taylor University
1978	Stanley L. Burden	Taylor University
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1980	John A. Ricketts	DePauw University

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1974	Clarence F. Dineen	St. Mary's College
1975	Clarence F. Dineen	St. Mary's College
1976	Walter A. Cory, Jr.	Indiana University
1977	Walter A. Cory, Jr.	Indiana University
1978	Walter A. Cory, Jr.	Indiana University
1979	Walter A. Cory, Jr.	Indiana University
1980	Walter A. Cory, Jr.	Indiana University

EDITORS

1971	Marion T. Jackson	Indiana State University
1972	Marion T. Jackson	Indiana State University
1973	Marion T. Jackson	Indiana State University
1974	Marion T. Jackson	Indiana State University
1975	Benjamin Moulton	Indiana State University
1976	Benjamin Moulton	Indiana State University
1977	Benjamin Moulton	Indiana State University
1978	Benjamin Moulton	Indiana State University
1979	Benjamin Moulton	Indiana State University
1980	Benjamin Moulton	Indiana State University

FELLOWS AS OF 1981

<i>Name</i>	<i>Date of Appointment as Fellow</i>	<i>Institutional Affiliation or City of Residence</i>
Betty D. Allamong	1981	Ball State University
Torsten Alvager	1976	Indiana State University
G. B. Bachman	1952	Purdue University
Ira Baldwin	1953	University of Wisconsin
Thomas F. Barton	1953	Indiana University
Marion F. Baumgardner	1974	Purdue University
Otto K. Behrens	1955	Indianapolis, IN
F. J. Belinfante	1959	Purdue University
William M. Bessey	1975	Butler University
George H. Bick	1973	St. Mary's College
Byron O. Blair	1979	Purdue University
William W. Bloom	1957	Valparaiso University
W. R. Breneman	1952	Indiana University
Herbert C. Brown	1958	Purdue University
William B. Bunger	1980	Indiana State University
Stanley L. Burden	1981	Taylor University
Howard B. Burkett	1961	Greencastle, IN
Irving W. Burr	1953	Ocean Park, WA
Ernest E. Campaigne	1954	Indiana University
Kenneth N. Campbell	1953	Evansville, IN
Marvin Carmack	1962	Indiana University
John E. Christian	1957	Purdue University
James A. Clark	1956	Indianapolis, IN
Thomas A. Cole	1976	Wabash College
Richard L. Conklin	1963	Hanover College
Della C. Cook	1979	Indiana University
Donald J. Cook	1958	Greencastle, IN
Robert H. Cooper	1955	Muncie, IN (BSU retired)
James B. Cope	1963	Earlham College
Walter Cory	1979	Indiana University
George B. Craig	1972	University of Notre Dame
T. J. Crovello	1973	University of Notre Dame
Sears Crowell	1957	Indiana University
Clyde G. Culbertson	1948	Lilly Lab Clinical Research
Fay Kenoyer Daily	1953	Indianapolis, IN
William A. Daily	1949	Indianapolis, IN
Harry G. Day	1953	Indiana University
David L. Dilcher	1981	Indiana University
Clarence F. Dineen	1966	St. Mary's College
Robert E. Dolphin	1971	Columbia, MO
N. M. Downie	1976	Lafayette, IN
David H. Dunham	1935	West Lafayette, IN
William R. Eberly	1966	Manchester College
Frank K. Edmondson	1953	Indiana University
Ray T. Everly	1955	West Lafayette, IN
John J. Favinger	1971	Whiteland, IN

John M. Ferris	1973	Purdue University
Virginia R. Ferris	1973	Purdue University
Robert I. Fletcher	1969	DePauw University
Donald P. Franzmeier	1980	Purdue University
Dean Fraser	1959	Indiana University
David G. Frey	1967	Indiana University
Margaret Fulford	1955	University of Cincinnati
Harry M. Galloway	1976	Purdue University
James R. Gammon	1968	DePauw University
Max W. Gardner	1923	Berkeley, CA
Paul H. Gebhard	1960	Indiana University
Raymond E. Girton	1935	El Cerrito, CA
Robert E. Gordon	1975	University of Notre Dame
George E. Gould	1950	Purdue University
Ralph J. Green, Jr.	1978	West Lafayette, IN
Arthur T. Guard	1956	West Lafayette, IN
Frank A. Guthrie	1970	Rose Hulman Institute
Flora A. Haas	1923	Crawfordsville, IN
Charles W. Hagen, Jr.	1955	Indiana University
Rolla N. Harger	1935	Indiana University Medical Center
John W. Hart	1971	Milton, IN
Stanley E. Hartsell	1953	West Lafayette, IN
Felix Haurowitz	1958	Bloomington, IN
Wm. Hugh Headlee	1954	Indianapolis, IN
Charles B. Heiser, Jr.	1954	Indiana University
Robert Henderson	1979	Indiana U.-Purdue U.
Jon R. Hendrix	1978	Ball State University
George F. Hennion	1939	University of Notre Dame
Robert L. Henry	1963	Wabash College
Clyde W. Hibbs	1970	Muncie, IN
Maynard K. Hine	1961	Indianapolis, IN
M. E. Hodes	1977	Indiana University Medical Center
Francis D. Hole	1944	University of Wisconsin
Naomi M. Hougham	1935	Franklin, IN
Malcom E. Hults	1976	Ball State University
Marion T. Jackson	1976	Indiana State University
Hubert M. James	1961	West Lafayette, IN
Willis H. Johnson	1950	Wabash College
Christian E. Kaslow	1959	Indiana University
Karl L. Kaufman	1977	Indiana Dept. of Mental Health
William G. Kessel	1977	Terre Haute, IN
Virgil R. Knapp	1977	Zionsville, IN
Helmuth M. Kohnke	1968	West Lafayette, IN
Carl H. Krekeler	1977	Valparaiso University
Ralph W. Lefler	1949	West Lafayette, IN
Alton A. Lindsey	1950	West Lafayette, IN
James C. List	1966	Ball State University
Ralph A. Llewellyn	1976	Univ. of Central Florida

George D. Lovell	1962	Wabash College
Wm. P. McCafferty	1975	Purdue University
L. S. McClung	1946	Indiana University
Thomas S. McComish	1981	Ball State University
Robert N. McCormick	1935	Muncie, IN
Scott McCoy	1947	Indianapolis, IN
Preston McGrain	1949	University of Kentucky
C. A. Markle	1956	Ashfield, MA
Wilton N. Melhorn	1978	Purdue University
Melvin G. Mellon	1928	West Lafayette, IN
Lynne L. Merritt, Jr.	1959	Indiana University
Thomas R. Mertens	1968	Ball State University
Robert M. Meyer	1978	Purdue University
Howard H. Michaud	1947	West Lafayette, IN
Robert D. Miles	1973	West Lafayette, IN
Donald E. Miller	1948	Ludington, MI
Sherman A. Minton, Jr.	1967	Indiana University Medical Center
B. Elwood Montgomery	1929	West Lafayette, IN
Benjamin Moulton	1953	Indiana State University
Jack R. Munsee	1981	Indiana State University
Darrell W. Nelson	1978	Purdue University
James E. Newman	1972	Purdue University
Jerry J. Nisbet	1969	Muncie, IN
R. Emerson Niswander	1963	Manchester College
Alvin J. Ohlrogge	1962	Purdue University
Phillip A. Orpurt	1975	Manchester College
John V. Osmun	1957	Lafayette, IN
C. Mervin Palmer	1929	Kennett Square, PA
John B. Patton	1961	Indiana Geological Survey
Philip Peak	1957	Indiana University
Nathan E. Pearson	1931	Indianapolis, IN
John F. Pelton	1962	Butler University
Robert Petty	1967	Wabash College
Lawrence Poorman	1976	Indiana State University
S. N. Postlethwait	1961	Purdue University
Horace M. Powell	1935	Indianapolis, IN
Richard L. Powell	1975	Bloomington, IN
Albert E. Reynolds	1964	DePauw University
Charles L. Rhykerd	1981	Purdue University
John A. Ricketts	1967	Greencastle, IN
Phillip A. St. John	1975	Butler University
Carl C. Sartain	1976	Indiana State University
John F. Schafer	1967	Washington State University
Lawrence A. Schaal	1980	Purdue University
Damian Schmelz	1973	St. Meinrad College
Allen F. Schneider	1967	University of Wisconsin, Pk
Bernard H. Schockel	1917	Aurora, IN
Donald L. Schuder	1961	Purdue University
Eugene P. Schwartz	1975	DePauw University
Edward W. Shrigley	1960	Tucson, AZ

Ernest M. Shull	1981	St. Francis College
Joseph R. Siefker	1980	Indiana State University
Michael J. Sinsko	1981	Indiana State Board of Health
Tracy M. Sonneborn	1953	Indiana University
Russell K. Stivers	1970	Purdue University
B. K. Swartz, Jr.	1971	Ball State University
James Thorp	1960	Indiana University Medical Center
Robert E. Van Atta	1976	Ball State University
Claude F. Wade	1975	Indianapolis, IN
Gertrude L. Ward	1971	Earlham College
Wm. John Wayne	1967	University of Nebraska
Walter J. Weber	1973	Indianapolis, IN
J. Dan Webster	1967	Hanover College
Eugene D. Weinberg	1959	Indiana University
Winona H. Welch	1935	Greencastle, IN
Frank Welcher	1950	Indianapolis, IN
John O. Whitaker	1976	Indiana State University
Joe L. White	1960	Purdue University
Grant T. Wickwire	1935	Saybrook, CT
Charles E. Wier	1967	AMAX Coal Company
Dan Wiersma	1977	Purdue University
Donald R. Winslow	1977	Indiana University
Bernard S. Wostman	1978	University of Notre Dame
Willard F. Yates, Jr.	1973	Butler University
Alan C. York	1979	Purdue University
F. N. Young, Jr.	1955	Indiana University
Howard R. Youse	1963	Greencastle, IN
Harold L. Zimmack	1978	Ball State University

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	Fall Meeting	October 28-29, 1971	Richmond
1972	Spring Meeting	April 28-29, 1972	Notre Dame
	Fall Meeting	November 2-4, 1972	Notre Dame
1973	Spring Meeting	May 11-12, 1973	Nashville
	Fall Meeting	October 26-27, 1973	Indianapolis
1974	Spring Meeting	May 3-4, 1974	Spencer
	Fall Meeting	October 31- November 2, 1974	Greencastle
1975	Spring Meeting	April 25, 1975	Brown County
	Fall Meeting	October 30-31, 1975	Indianapolis
1976	Spring Meeting	April 23, 1976	New Harmony
	Fall Meeting	November 4-5, 1976	Valparaiso
1977	Spring Meeting	April 22, 1977	Indianapolis
	Fall Meeting	October 27-28, 1977	Indianapolis
1978	Spring Meeting	April 28, 1978	Connersville
	Fall Meeting	November 2-3, 1978	Anderson
1979	Spring Meeting	April 27-28, 1979	St. Meinrad
	Fall Meeting	October 18-19, 1979	North Manchester
1980	Spring Meeting	April 25-26, 1980	Geneva Center
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