# notredamereport

### contents

October 12, 1973

#### the university

- 41 Search Committee for Director of Mediaeval Institute
- 41 Peat, Marwick, Mitchell Professorship in Accountancy
- 41 Alumni Association information sessions
- 41 Prof. Thomas Murphy
- 41 Academic Council meetings
- 41 Blood donor program
- 42 Cardinal O'Hara Memorial
- Lectureships 42 National Teacher
- Examinations
  42 Faculty meeting
- 42 Student Financial Aid
- public workshop
  42 "Economics Education
  In-Service Program"
- 42 The Christian lawyer

#### faculty notes

- 43 University appointments
- 43 Non-university appointments
- 43 Miscellany

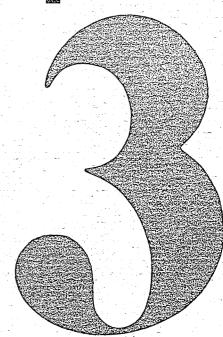
#### office of advanced studies

Information Circulars

- 45 National Science Foundation NATO Postdoctoral Fellowships in Science (No. FY74-24)
- 45 National Science Foundation Grants for Solar Energy Use (No. FY74-25)

Graduate School

- 46 Kent Fellowships for College Teaching Careers 1974-75 (No. FY74-GS8)
- 47 The Business and Professional Women's Foundation Announces: 1974-75 Graduate Fellowships (No. FY74-GS10)
- 47 Current Publications and Other Scholarly Works



# the university

# Search Committee for Director of Mediaeval Institute

A search committee has been appointed by Rev. James T. Burtchaell, C.S.C., provost, to assist in finding a Director for the Mediaeval Institute. Dr. Astrik L. Gabriel, who has been Director of the Institute since November, 1952 will be retiring from that position at the end of the present academic year in order to continue scholarship and research in a full-time capacity. The committee has been commissioned to conduct a nation-wide search, and, if deemed desirable, to consider mediaevalists even at foreign universities. Chairman of the Committee will be Dr. Philip Gleason, professor of history.

# Peat, Marwick, Mitchell Professorship in Accountancy

A Peat, Marwick, Mitchell Professorship in Accountancy has been established in the College of Business Administration. Funded by the Peat, Marwick, Mitchell & Co. Foundation, New York, it is the first professorship in that department.

Ray M. Powell, professor and chairman of accountancy, will head the committee to conduct a nationwide search aimed at filling the professorship in 1974.

# Alumni Association information sessions

A series of informational sessions for campus visitors has been added to football Saturday activities by the Notre Dame Alumni Association.

The multi-media presentation opens at 11 a.m. in the auditorium of the Memorial Library with several rare scenes of early Notre Dame history. The event closes with a description of the school's programs as they exist today and are planned for the future.

Participating in the program are members of the

Notre Dame Glee Club, student musicians, faculty and several student volunteers. James D. Cooney, executive director of the alumni association, supervised the production with the assistance of Michael E. Jordan. Future programs, followed by refreshments, are scheduled for Oct. 27 and Nov. 3.

# **Prof. Thomas Murphy**

Prof. Thomas T. Murphy, the fourth dean of the College of Business Administration, recently announced his resignation, effective at the end of the 1973-74 academic year. He will return to teaching in the Department of Finance.

Rev. Theodore M. Hesburgh, C.S.C., president, said a search committee, composed of five members from among full and associate professors in the College and a student in the College, will be formed to nominate candidates for the deanship according to procedures outlined in the recently revised Academic Manual.

# **Academic Council meetings**

Meetings of the Academic Council have been scheduled as follows:

Oct. 29 at 3 p.m. in Rooms 100-102-104 of the Center for Continuing Education
Nov. 19 at 3 p.m. in Rooms 100-102-104 of the Center for Continuing Education
Dec. 11 at 3 p.m. in Rooms 100-102-104 of the Center for Continuing Education.

## **Blood donor program**

The Ladies of Notre Dame have designated October as Blood Donor Month. The Blood Donor Program is credited with every donation made. Members may draw on this credit for themselves or their immediate family. Members may volunteer to donate blood at any time or when another in their organization needs blood.

Persons between the ages of 21 and 60 who are in

1973 by the University of Notre Dame. All rights reserved.

normal good health may donate to the program by appointment at the Central Blood Band, 204 W. Navarre St. The phone number is 234-1157. For further information, please contact Margaret Stauder at 234-7287 or Mary Hauck at 232-9475.

# Cardinal O'Hara Memorial Lectureships

The schedule of the Cardinal O'Hara Memorial Lectures, sponsored by the College of Business Administration, is as follows:

Joseph M. Belth, professor of insurance, Indiana University, 3:30 p.m., Oct. 10, Memorial Library Auditorium, "Life Insurance Sales Techniques: Standard Business Practice or National Scandal?" 7:30 p.m., Board Room, Hayes-Healy Center, "Ethics of Life Insurance Agents and Actuaries: A Case Study in Business Morals."

Sidney, Davidson, dean, Graduate School of Business, University of Chicago, 3:30 p.m., Nov. 14, Memorial Library Auditorium, 7:30 p.m., Board Room, Hayes-Healy Center, topic to be announced.

# **National Teacher Examinations**

The University of Notre Dame has been designated as a test center for National Teacher Examinations on Nov. 10, according to Dr. Peter P. Grande, assistant dean of the Freshman Year of Studies Program.

College seniors and teachers applying for certification, as well as those seeking positions in school systems requiring the examination, are eligible to take the tests. The examinations are designed to assess cognitive knowledge and understanding in professional education, general education and subject field specialization.

Additional information and registration forms may be obtained from Dr. Grande's office or by application to Educational Testing Service, Box 911, Princeton, N.J. 08540.

# **Faculty meeting**

There will be a meeting of the University of Notre Dame faculty on Tuesday, Nov. 13, in Washington Hall at 4:15 p.m. Father Hesburgh, president, will address the faculty at this meeting. All faculty are asked to be present.

# Student Financial Aid public workshop

The Office of Student Financial Aid will host a public workshop and information session on the state scholarship and other financial aid programs in the Center for Continuing Education Oct. 24.

High school counselors and other interested parties will hear a discussion of new changes in the scholarship plan and the Basic Grant Program by Mrs. June McCauslin, director of financial aid.

# "Economics Education In-Service Program"

The newly established Center for Economic Education at Notre Dame recently co-sponsored the first of a six-session "Economics Education In-Service Program" for social studies teachers.

Other programs are scheduled for Oct. 19, Nov. 9, Nov. 30, Dec. 14 and Jan. 5. Goals of the program are to improve the participants' ability to use economic analysis in dealing with problems of interest, and to apprise social studies teachers of the latest in economic education materials, kindergarten through high school. The Notre Dame center is directed by Dr. Thomas Swartz, associate professor of economics.

# The Christian lawyer

Continuing a series started two years ago, the Notre Dame Law School is again presenting discussions on the role of the Christian lawyer. The general topic this year will concern the relationship between the system of justice, however it can be defined in the Anglo-American scheme of things, and the Christian demands for forgiveness. The first lecture was Sept. 29 and at least two subsequent meetings will be planned for this semester and at least three for the Spring semester. All are invited.

# faculty notes

# University appointments

<u>Vincent R. Raymond</u>, assistant dean of the College of Business Administration, has been appointed to associate dean.

<u>Dr. Francis A. Yeandel</u>, assistant professor of management, has been appointed as assistant dean of the College of Business Administration.

# Non-university appointments

<u>Dr. Rudolph S. Bottei</u>, professor of chemistry, has been reelected treasurer of the Division of Analytical Chemistry of the American Chemical Society. He was also reappointed chairman of the membership committee.

Dr. Elisabeth Schussler Fiorenza, assistant professor of theology, has been elected an associate editor of The Catholic Biblical Quarterly, the official journal of the Catholic Biblical Association.

Dr. Waldemar M. Goulet, assistant professor of finance, was recently elected as secretary of the Michiana Chapter of the American Marketing Association.

Mr. Theodore Ivanus, associate librarian and assistant professor of government and international studies, was appointed an Associate of the Illinois Summer Research Laboratory on Russia and Eastern Europe at the University of Illinois in Urbana-Champaign.

<u>Dr. James Kritzeck</u>, professor of history, was elected vice president of the American Graduate and Professional Commission. The AGPC is the American branch of the International Catholic Movement for Intellectual and Cultural Affairs.

Dr. Thomas R. Swartz, associate professor of economics, was elected a member of the Executive Committee and the Education Programs Committee of the Indiana Council for Economics Education.

### Miscellany

Dr. Teoman Ariman, associate professor of aerospace and mechanical engineering, presented a lecture entitled "Siesmic Analysis of Cracked Reactor Vessels" at the Second International Conference on Structural Mechanics in Reactor Technolgy, Berlin, Germany, Sept. 10-14. At the same conference, he presented two papers, entitled "Elasto-Plastic Thermal Stresses in Plates with Circular Holes" and "Axial Cracks in Cylindrical Shells Subjected to Thermal and Mechanical Loads." He was also chairman of a technical session on "Stress Analysis and Design of Reactor Vessels" and was selected to serve on the International Scientific Committee on Structural Mechanics in Reactor Technology.

Dr. Bernard D. Cullity, professor of metallurgical engineering and materials science, presented a colloquium on Aug. 22 on "Effect of Stress on Magnetism" at the Savannah River Laboratory of the Atomic Energy Commission in Aiken, S.C.

Canon Astrik L. Gabriel, director of the Mediaeval Institute, will deliver a public lecture on the pictorial history of mediaeval student life Oct. 16 at Syracuse University. He will also lead a seminar on mediaeval education the following day.

Rev. Robert L. Kerby, assistant professor of history, conducted a three-week workshop in "Byzantine Liturgical Spirituality" between June 18 and July 6 for the Summer School of Religious Studies, St. Teresa's College, Winona, Minn.

<u>Dr. Klaus Lanzinger</u>, associate professor of modern and classical languages, was designated by the Wilhelm Braumueller-Universitaetsverlag in Vienna to edit Vol. 3 of Americana-Austriaca, the Austrian journal for American Studies.

Dr. Lawrence H.N. Lee, professor of aerospace and mechanical engineering, delivered a lecture entitled "Dynamic Plasticity" at the Second International Conference on Structural Mechanics in Reactor Technology, West Berlin, Germany. At the same conference, he also delivered another paper, entitled "Inelastic Asymetric Buckling of Ring-Stiffened Cylinderical Shells Under External Pressure," and was chairman of a technical session on fracture behavior of pressure tubes in thermal reactors.

Dr. Thomas J. Mueller, professor of aerospace and mechanical engineering, participated in the Symposium on International Collaboration in Fluid Dynamics on Sept. 20 in Brussels, Belgium. Dr. Mueller is on sabbatical leave at the Institut von Karman de Dynamique Des Fluides in Brussels, Belgium.

Dr. Victor W. Nee, professor of aerospace and mechanical engineering, presented a paper at the 10th International Symposium on Space Technology and Science in Tokyo, Sept. 3-8. The paper was entitled "A Simple Method for the Calculation of the Inlet Flow." He also presented several seminars at Chang-san Institute, National Taiwan University.

Dr. Jerome L. Novotny, professor of aerospace and mechanical engineering, presented a paper entitled "Effect of Pressure on Heat Transfer and Radiating Gases" at the Heat Transfer in Flames Seminar in Trogir, Yugoslavia. He also presented a lecture at Imperial College entitled "Effect of Pressure on Heat Transfer and Radiating Cases."

Dr. Daniel J. Pasto, professor of chemistry, delivered a paper entitled "Stereochemical Aspects of the Cycloaddition of Alkenylidenecyclopropanes with Chrolosulfonylisocyanate" at the meeting of the Organic Division of the American Chemical Society in Chicago on Aug. 29.

Dr. William P. Sexton, associate professor of management, is presenting a series of lectures on the topic "Intervention Theory and Bureaucratic Systems" at the U.S. Interagency Executive Development Center in Oak Ridge, Tenn. Oct. 10 and Nov. 7.

Dr. William G. Storey, associate professor of theology, presented a lecture entitled "General Introduction to the Liturgy of the Hours" for the priests and brothers of the Society of Mary (Marianists) of the Province of St. Louis on Sept. 21 in San Antonio, Tex. On Sept. 22, he gave three talks for the religious and laity of the San Antonio Archdiocese as part of "Workshop: Liturgy of the Hours- the Renewal of Community Prayer." On Sept. 24 at Mission San Jose, Calif., he addressed the newly-elected Liturgical Commission of the West Coast Province of Dominican Sisters on Communal Worship." On Sept. 24 he spoke on "Liturgy and Personal Prayer" at St. Mary Magdalen Parish in Berkeley, Calif. before the Bay Area Charismatic Renewal members. On Sept. 25 he addressed the cloistered Dominican nuns of Menlo Park, Calif. on "The Sung Office." On Sept. 26, he addressed the Dominican Liturgy Committee of San Rafael, Calif. on "A Balanced Liturgical Program for the 1970's."

Dr. A. Peter Walshe, associate professor of government and international studies, on sabbatical leave during the 1972-73 academic year, lectured at the Universities of Oxford, York, London, Cape Town Swaziland and Rodesia. His topics focused on African nationalism and current tensions in Southern Africa.

# office of advanced studies

### Information Circulars

National Science Foundation NATO Postdoctoral Fellowships in Science

NO. FY74-24

**Objectives** 

Purpose: To promote the progress of science and to assist in obtaining a closer collaboration among the scientists of various nations. Approximately 30 awards will be offered on February 25, 1974.

Types of Projects

The fellowships -- normally awarded for tenures of either 9 or 12 months -- are intended for persons planning to enter upon or continue postdoctoral study in the sciences. Fields covered are: mathematical, physical, medical, biological, engineering, and the social sciences, and the history and/or philosophy of science. Also included are interdisciplinary fields which are comprised of overlapping areas among two or more sciences -- such as oceanography, operations research, meteorology, and biophysics.

Eligibility

Each applicant must submit an outline of his proposed program of study as well as complete copies of transcripts of his college and university records. An Oath or Affirmation attesting to allegiance to the U.S. is a required part of the application.

The program is designed primarily for applicants who have received their doctorates within the past 5 years, but an applicant who meets the eligibility requirements is not disqualified because he has held his doctorate for a longer period.

Stipend

The stipend is \$9,000 for 12 months, and \$6,750 for 9 months. Normally a Fellow is provided with dependency allowances according to his status, prorated for a 9-month

tenure, \$720 per annum per dependent spouse and \$720 per annum for each of not more than two dependent children.

An allowance normally is available to aid in defraying the costs of travel to begin tenure, and upon completion of tenure, to return to the Fellow's residence or the place from which the application was filed. The allowance is computed at the rate of 8 cents per mile. In addition, an allowance of \$200 to aid in defraying costs of research, tuition and fees and special travel such as short visits to other laboratories or scientific meetings is allowed.

Location

Recipients are expected to study in countries that are members of NATO, other than the United States. The awards are not restricted to study in a NATO country, and consideration will be given to those planning to study in other countries cooperating with NATO.

Application

Application materials may be obtained from the Division of Higher Education in Science, National Science Foundation, 1800 G Street N.W., Washington, D.C. 20550. The deadline for submitting applications is October 29, 1973. Applications submitted by mail must be postmarked no later than this date.

Selection of Fellows will be made by the National Science Foundation. All applicants will be notified by letter on February 24, 1974, of the disposition of their applications.

National Science Foundation Grants for Solar Energy Use

NO. FY74-25

**Objectives** 

Broadening its program for research aimed at stimulating the widespread use of solar energy, the National Science Foundation announced a \$2.5 million effort focused on advanced systems and subsystems to apply the sun's energy to heating, cooling, and hot

water service in buildings. While the technical feasibility of using solar energy for such purposes has been demonstrated, innovative research is needed to advance the technologies to the point of economic and market readiness.

#### Types of Projects

Awards not to exceed the equivalent of five professional man-years of effort each will be made to support research in any of 10 specified categories: Solar Energy Collectors; Solar Energy Space Cooling Subsystems; Solar Energy Assisted Heat Pumps; Advanced Solar Energy Collector Heating and Cooling Systems; Alternative Approaches to Solar Energy Systems; Evaluation Studies of Completed Buildings with Solar Energy Systems; Systems Analysis and Simulation Studies; Scale Economies of Solar Energy Heating and Cooling of Buildings; Consumer Demand Analysis; Solar Energy Storage Subsystems.

#### Deadline

Deadline for receiving proposals is November 28, 1973. Details are carried in National Science Foundation's Program Solicitation 73-22, "Research on Subsystems and Systems for the Application of Solar Energy to the Heating and Cooling of Buildings." A copy is available in the Office of Advanced Studies, Division of Research and Sponsored Programs, Extension 7378.

### **Graduate School**

Kent Fellowships for College Teaching Careers 1974-75

#### NO. FY74-GS8

#### Purpose

To encourage and support highly qualified graduate students interested in relating their educational plans to their basic values in college teaching careers.

#### Eligibility

- 1. Any Ph.D. aspirant in any field common to the undergraduate liberal arts curriculum in the U.S.
- 2. A minimum of one year of full-time graduate study toward the Ph.D. in major field as of September 1973
- 3. Professional school (law, medicine, theology, etc.) students may apply the year immediately preceding the beginning of Ph.D. studies provided their professional degree will rate one year's advanced standing in a Ph.D. program.
- 4. Applicant must be less than 35 years of age at the time of filing application.

- 5. Previous applicants may reapply after a two year interval.
- 6. Persons working for a second Ph.D. and Postdoctorals are ineligible.
- 7. Foreign nationals who have completed one year of full-time graduate study in the U.S. and are residents here are eligible.

None of these eligibility requirements may be waived.

#### Duration and Stipend

One year renewable until completion of degree if not more than three years. Though based on individual need, stipends may not exceed: For the academic year Single Married \$2025 \$2200

plus dependency allowances for children, tuition and fees.

#### Stipulations

Graduate Record Aptitude and Advanced Test (if offered in applicant's major field). This requirement cannot be waived.

Though other fellowships may be held concurrently with a Kent, only one fellowship, administered by the Danforth Foundation, can be held in a given year.

Applicant must be endorsed by a member of the graduate department in which he is studying. Available endorsement forms are mailed by the Danforth Foundation directly to the applicant. Only on receipt of the completed endorsement form will a candidate be invited to complete the application.

#### Deadlines

December 1, 1973...Receipt of nominations or direct application requests.

December 15, 1973...Receipt of completed endorsement forms and last day application forms are sent out.

December 31, 1973...Receipt of completed applications.

Write to: Kent Fellowship Program
Danforth Foundation
222 South Central Ave.
St. Louis, Missouri 63105

Interested graduate students should contact Rev. David B. Burrell, C.S.C., Department of Theology, O'Shaughnessy Hall or Professor Maben Herring, Department of English, O'Shaughnessy Hall.

Latin American and Caribbean Learning Fellowships on Social Change

#### NO. FY74-GS9

Purpose: To promote study of Latin American social change programs, the INTER-AMERICAN FOUNDATION is making available a small number of pre- and postdoctoral research fellowships.

Eligibility: Pre- and postdoctoral scholars in the social sciences and professions. They must have a multidisciplinary academic and experiential background with specialization in at least one academic discipline or problem area.

Applications obtainable from:

Learning Fellowship on Social Change Inter-American Foundation
1515 Wilson Boulevard
Resslyn, Virginia 22209
Applications must be post-marked on or before December 1, 1973. Awards will be announced by April 1, 1974.

The Business and Professional Women's Foundation Announces: 1974-75 Graduate Fellowships

#### NO. FY74-GS10

#### Eliqibility:

- 1. Citizen of the United States of America
- 2. Doctoral candidate whose proposal for research has been approved by academic authorities in an accredited graduate institution

OR -

Person able to demonstrate that the proposed research will be conducted under standards of scholarship recognized at the doctoral level

#### Requirements:

- 1. Proposed research must pertain to educational, economic, political, social or psychological factors affecting the business and professional woman
- 2. Quarterly progress reports
- 3. One copy of the unpublished research findings and two copies at date of issuance, if published

- 4. Authorization for reproduction of excerpts from research findings for public information
- 5. Credit line in any published or unpublished report of research findings

#### Stipend:

Fellowships range from \$500 to \$3,000 for one year.

#### Application:

To Business and Professional Women's Foundation 2012 Massachusetts Avenue, N.W. Washington, D.C. 20036

#### Deadline:

Not later than January 1, 1974 Candidates notified by April 1, 1974

# **Current Publications** And Other Scholarly Works

ARTS AND LETTERS HUMANISTIC AND SOCIAL STUDIES

#### Economics

Kim, Kwan S.

K.S. Kim. 1973. Economics of cropshare, once again: Comment. American Journal of Agricultural Economics 54(4):686-688.

#### Education

Meany, John O.
J.O. Meany. 1973. Toward a psychology of
"personal theology" and prayer. <u>Lumen</u> Vitae 28(2):340-350.

#### English

Kline, Edward A.

E.A. Kline. 1973. Computers and teaching literary stylistics. Pages 370-373 in, Proceedings of a Fourth Conference on Computers in the Undergraduate Curricula. Claremont, California.

#### General Program of Liberal Studies

Moore, Harold F. H.F. Moore and R.C. Neville. 1972. The contours of responsibility: A new model. Man and World 5(4):392-422.

#### Government and International Studies

Francis, Michael J. 1973. Chile: La Capacidad M.J. Francis. para un Cambio Ordenado. Problems Internacionales 20:63-66.

#### History

Kerby, Robert L, Rev. R.L. Kerby. 1973. Review of <u>John Quincy</u> Adams: A personal history of an indepen-

dent man by Marie B. Hecht. The Review of Politics 35(July):434-437.

R.L. Kerby. 1973. Why the Confederacy lost. The Review of Politics 35(July): 326-345.

#### Philosophy

Evans, Joseph W. J.W. Evans. 1973. Jacques Maritain - philosopher was Pope's "teacher." <u>National</u> Catholic Reporter. May 11:5.

#### Psychology

Borkowski, John G.

C.R. Zubrzycki and J.G. Borkowski. Effects of anxiety on storage and retrieval processes in short-term memory. Psychological Reports 33:315-320.

Dawson, Willian E.

W.E. Dawson and M.A. Mirando. 1973. Sensory-modality scale for pronounceability of trigrams and its relation to free-re-call learning. <u>Perceptual and Motor</u> Skills 36:1219-1224.

Walter, Donald A.
D.A. Walter. 1973. The effect of sentence context on the stability of phonemic and semantic memory dimensions. Journal of Verbal Learning and Verbal Behavior 12:

#### Sociology and Anthropology

Liu, William T.

W.T. Liu, I.W. Hutchison, and L.K. Hong. 1973. Conjugal power and decision making: A methodological note on crosscultural study of the family. The American Journal of Sociology 79(1):84-98.

Weigert, Andrew J. A.J. Weigert. 1973. Review of the Loyola psychological study of the ministry and life of the American priest. Sociologi-

cal Analysis 34(Summer):152-154. A.J. Weigert and D. Thomas. 1973. Sociological theory and the family: The prob-lem of fit between form and content. Social Science Information 12(April): 139-155.

A.J. Weigert, D.L. Thomas, and V. Gecas. 1973. Social identities in Anglo and Latin adolescents. Social Forces 51(June):477-484.

#### Theology

O'Connor, Edward D., CSC E.D. O'Connor, CSC. 1973. Un movimento pentecostale Cattolico. <u>Vivere in 2:11-</u>

E.D. O'Connor. 1973. Pentecoste e Cattolicesimo. Vivere in (3):18-20.

#### BUSINESS ADMINISTRATION

#### Accountancy

Williamson, Robert W. R.W. Williamson. 1973. Uncertainty in present value. Management Advisor 16(1):

#### Finance and Business Economics

Goulet, Waldemar M.

W.M. Goulet. 1973. Managerial expectations and the common stock listing decision. Proceedings of the Southwestern Finance Association March: 22-24.

Lanser, Howard P., H.P. Lanser and W.G. Lewellen. 1973. Executive pay preferences. <u>Harvard Business</u> Review Sept.:115-122.

Trubac, Edward R.

E.R. Trubac. 1973. Financial aspects of a retirement plan for religious communities. Hospital Progress 54(7):38-41.

#### Management

Houck, John W.
J.W. Houck. 1973. Can you imagine. Notre Dame Magazine 2(1):12-14.

Sexton, William P

W.P. Sexton. 1973. Personnel placement: A human system. Sisters Today 45(1):13-20.

#### Marketing Management

Furuhashi, Yusaku

Y. Furuhashi. 1973. Advanced cases in multinational business by S.P. Sethi -A book review. Journal of Marketing 37(1):117.

Malone, John R.

J.R. Malone. 1973. Purchasing: Principles and applications by S.F. Heinritz and P.V. Farrel - A book review. <u>Journal of Marketing</u> 37(1):112.

Mayo, Edward J.

E.J. Mayo. 1972. Leisure as disposable time. The Cornell Hotel and Restaurant Administration Quarterly 12(4):50-53.
E.J. Mayo. 1973. Regional travel char-

acteristics of the United States. 3M National Advertising Company, Bedford Park, Illinois. 36 pp.

#### ENGINEERING

### Aerospace and Mechanical Engineering

Ariman, Teoman

K.S. Rao, T. Ariman, and K.-T. Yang. 1973.

Proceedings of 2nd Annual Environmental

Engineering and Science Conference, April,
1972, Louisville. March:555-571.

T. Ariman, R.J. Young, and K.-T. Yang.

1973. On particle collection by liquid scrubbing. Proceedings of 2nd Annual Environmental Engineering and Science Conference, April, 1972, Louisville. March: 615-632.

T. Ariman, M.A., Turk, and N.D. Sylvester. 1973. Microcontinuum fluid mechanics-a review. <u>International Journal of Engi-</u>

neering Science 11:905-930.

T. Ariman, M.A. Turk, and N.D. Sylvester. 1973. A microcontinuum model of blood. Proceedings of the Fourth Canadian Congress of Applied Mechanics, Montreal. May 28-June 1:837-838.

Biles, William E.

W.E. Biles. 1973. An accelerated sequential simplex search technique. AIEE  $\underline{\text{Transactions}}$  5(2):127-134.

Huang, Nai-Chien

N.C. Huang. 1973. Theories of elastic slender curved rods. <u>Journal of Applied</u>
<u>Mathematics and Physics (ZAMP)</u> 24:1-19.
N.C. Huang. 1973. A variational principle

for finite deformations of quasi-shallow shells. International Journal of Mechanics and Science 15:457-464.

N.C. Huang. 1973. Inelastic buckling of eccentrically loaded columns. Proceedings of the Fourth Canadian Congress of Applied Mechanics, Montreal. May 28-June 1:267-268

Ingram, Charles W.

J.M. Martin and C.W. Ingram. 1973. Experimental correlation between the flow and magnus characteristics of a spinning ogive-nose cylinder. AIAA Journal 11(7): 901-902.

Lee, Lawrence H.N.

C.M. Ni and L.H.N. Lee. 1973. Dynamic behavior of inelastic cylindrical shells at finite deformation. Proceedings of the Fourth Canadian Congress of Applied Mechanics, Montreal. May 28-June 1:369-370.

Mueller, Thomas J.

T.J. Mueller, J.R. Lloyd, J.L. Lower, W.T. Struble, and F.N. Underwood. 1973. On the separated flow produced by a fully open disc-type prosthetic heart valve. Pages 97-98 in, Y.C. Fund and J.A. Brighton, editors, 1973 Biomechanics Symposium, Properties of Biological Fluids and Solids; Mechanics of Tissues and Organs, Georgia Institute of Technology, June 20-22, 1973. ASME, New York.

Nee, Victor W. V.W. Nee, C. Dietrick, R. Betchov, and A.A. Szewczyk. 1973. The simulation of the atmospheric surface layer with volumetric flow control. Pages 483-487 in, 1973 Proceedings of the Institute of Environ-mental Sciences, April 2, 1973. Anaheim,

California. Schilmoeller, Neil H.

C.A. Erdman and N.H. Schilmoeller. 1973. Dynamic technique for measuring thermal conductivity in cylindrical geometry. Journal of Applied Physics 44(7):3127-3129.

#### Chemical Engineering

Banchero, Julius T. T.G. Smith and J.T. Banchero. 1973. The numerical simulation and design of a homogeneous, nonisothermal, multi-pass

shell-and-tube reactor. Journal of Heat Transfer, Transactions ASME, Series C 95:206-210.

Carberry, James J.

J.J. Carberry and G.C. Kuczynski. 1973. Why radiation increases EO catalyst selectivity. Chemtech. April:237-241.

#### Electrical Engineering

\*Gabriel, Garabet J.

G.J. Gabriel. 1973. Microscopic theory of Rayleigh scattering. Physical Review A 8(2):963-990.

Myers, Basil R.
B.R. Myers. 1973. Generating function for spanning trees. <u>Electronic Letters</u> 9(16):360-361.

\*Under the Radiation Laboratory

#### Metallurgical Engineering

Fiore, Nicholas F.

H. Akita, D.S. Sampar, and N.F. Fiore. 1973. Substructure control by solidifica-<u> Metallurgi-</u> tion control in Cu crystals. cal Transactions 4:1593-1597.

Kuczynski, George C.

P. Forzatti, A. Klimasara, G.C. Kuczynski, and J.J. Carberry. 1973. γ-irradiation enhanced yield in the Ag catalyzed oxidation of ethylene. <u>Journal of Catalysis</u> 29(1):169-172.

Peretti, Ettore A. E.A. Peretti and S. Hutchison. 1973. The ternary subsystem Sn4As3-Pb-SnAs. Journal of the Less Common Metals 31:321-327.

#### SCIENCE

#### Biology 5 and 5 an

Fuchs, Morton S.

S.H. Kang and M.S. Fuchs. 1973. An improvement in the Hummel chymotrypsin assay. Analytical Biochemistry 54:262-265. Fuchs, Morton S

S.H. Kang and M.S. Fuchs. 1973. The identification of two protease inhibitors in <u>Drosophila melanogaster</u>, <u>Comparative Biochemistry and Physiology</u> 46B:367-374.

\*Rai, Karamjit S.

K.S. Rai. 1973. Genetic control of biting flies: Progress and prospects. Pages 79-88 in, Proceedings of a Symposium. University of Alberta, Edmonton.

K.S. Rai, K.K. Grover, and S.G. Suqura. 1973. Genetic manipulation of Aedes aegypti: incorporation and maintenance of a genetic marker and a chromosonal translocation in natural populations. Bulletin of the World Health Organization 48:49-56.

Saz, Howard J.

V.C. Tsang and H.J. Saz. 1973. Demonstration and function of 2-methylbutyrate

racemase in Ascaris lumbricoides. Comparative Biochemistry and Physilogy 45B: 617-623.

\*Under the Radiation Laboratory

#### Chemistry

\*Bottei, Rudolph S.

R.S. Bottei and R.G. Schneggenburger. 1973. A spectrophotometric study of group IVA metal complexes of napthazarin formed by the oxidation of  $\beta$ -hydronaphthazarin. Journal of Inorganic and Nuclear Chemistry 35:2596-2600.

Bretthauer, Roger K.

F.J. Castellino, G.E. Siefring, Jr., J.M. Sodetz, and R.K. Bretthauer. 1973. Amino terminal amino acid sequences and carbohydrate of the two major forms of rabbit plasminogen. Biochemical and Biophysical Research Communications 53:845-851.

Castellino, Francis J.
F.J. Castellino, W.J. Brockway, J.K.
Thomas, H-T. Liao, and A.B. Rawitch. 1973. Rotational diffusion analysis of the conformational alterations produced in plasminogen by certain antifibrinolytic amino acids. Biochemistry 12:2787-2791.

F.J. Castellino, G.E. Siefring, Jr., J.M. Sodetz, and R.K. Bretthauer. Amino terminal amino acid sequences and carbohydrate of the two major forms of rabbit plasminogen. Biochemical and Biophysical Research Communications 53:845-851.

\*Columba, C., CSC
D.V. Naik, J.C. May, and C. Curran. 1973.
Mössbauer studies of tin(IV) complexes with anionic chelating ligands having oxygen donors. <u>Journal of Coordination</u> Chemistry 2:309-315.

Fehlner, Thomas P.

L.C. Ardini and T.P. Fehlner. 1973. Identification of an unstable nonaborane (BgH<sub>13</sub>) in the gas phase. <u>Inorganic</u> <u>Chemistry</u> 12:798-803.

Freeman, Jeremiah P.

J.P. Freeman. 1973. Less familiar re-actions of oximes. <u>Chemical Reviews</u> 73:283-292.

\*Hamill, William H.

K. Hiraoka and W.H. Hamill. 1973. Excitation of luminescence from KC1:T1+, KBr: Tl<sup>+</sup>, and KI; Tl<sup>+</sup> by slow electron impact. The Journal of Chemical Physics 58(a):3686-3691.

K. Hiraoka and W.H. Hamill. 1973. Luminescence emission and excitation spectra of benizene and alkene thin films under slow electron impact at 77°K. The Journal of Chemical Physics 77(13):1616-1620.

Hayes, Robert G.

A.J. Signorelli and R.G. Hayes. 1973. ray photoelectron spectroscopy of various core levels of lanthanide ions: The roles of monopole excitation and electrostatic coupling. Physical Review B 8:81-86.

M.V. Zeller and R.G. Hayes. 1973. X-ray photoelectron spectorscopic studies on the electronic structures of porphyrin

and phthalocyanine compounds. Journal of the American Chemical Society 95:3855-3860.

\*Infelta, P.P.

P.P. Infelta and S.J. Rzad. 1973. Effect of charge scavengers on the scavenging of charges of opposite sign. The consequences on the steady state and pulse radiolysis of liquid hydrocarbons. The Journal of Chemical Physics 58(9):3775-3784.

Pasto, Daniel J.

D.J. Pasto and J.K. Borchardt. 1973. tial resolution and correlation of the absolute configuration of (-)-(R)-2phenylisobutenyl-idenecyclopropane. <u>Tetrahedron Letters</u> 2517-2520.

\*Scheidt, W. Robert

W.R. Scheidt. 1973. Crystallographic study of the structural trans effect. Molecular structure of oxoisopropoxobis (8-hydroxyquinolinato) vanadium (V). Inorganic Chemistry 12:1758-1761.

\*Thomas, J. Kerry

T. Gangwer and J.K. Thomas. 1973. Formation of excited states in the radiolysis of p-xylene. Radiation Research 54(2): 192-206.

F.J. Castellino, W.J. Brockway, J.K. Thomas, H-T. Liao, and A.B. Rawitch. 1973. Rotational diffusion analysis of the conformational alterations produced in plasminogen by certain antifibrinolytic amino acids. Biochemistry 12:2787-2791.

Traynelis, Vincent J.

V.J. Traynelis and J.C. Sih. 1973. Seven-membered heterocycles. VI. 4-Alkylidene-1-benzothiepin-5(2H)-ones and the reaction of halogenated 3,4-dihydro-l-benzo-thiepin-5(2H)-ones with base. Journal of Organic Chemistry 38:2629-2637. V.J. Traynelis, J.C. Sih, and Y. Toshikawa.

1973. Seven-membered heterocycles. V. Synthesis and structure of halogenated 3,4-dihydro-1-benzothiepin-5(2H)-ones. Journal of Organic Chemistry 38:2623-2629.

\*Under the Radiation Laboratory

#### Mathematics

Goldstein, Ronald A.

R.A. Goldstein and R. Saeks. 1973. Trace class, widths and the finite approximation property in Banach space. Bulletin of the American Mathematical Society 79: 57-60.

Pollak, Barth

K. Martin. 1973. Orthogonal groups over  $R((\pi))$ . American Journal of Mathematics  $95(1):59-\overline{79}$ .

Randall, Duane

D. Randall. 1972. Note on the generalized vector field problem. Boletin de la Sociedad Matematica Mexicana 17:40-41.

#### Microbiology

\*Pleasants, Julian R. B.S. Reddy, J.R. Pleasants, and B.S. Wostmann. 1973. Metabolic enzymes in liver and kidney of the germfree rat. Bid chimica et Biophysica Acta 320:1-8.

\*Pollard, Morris

M. Pollard. 1972. Spontaneous and induced neoplasms in germ-free rats. Pages 394-406 in Environment and Cancer. The Williams and Wilkins Company, Baltimore.

M. Pollard. 1972. Carcinogenesis in germfree animals. Progress in Immunobiological Standardization 5:226-230.

\*Under the Lobund Laboratory

#### Physics •

Biswas, Nripendra N.

N.N. Biswas, N.M. Cason, V.P. Kenney, J.T. Powers, and W.D. Shephard. 1973: Inclusive reactions: A new parametrization. Nuclear Chemistry B59:273.

Bose, Samir K. S.K. Bose and M.Y. Wang. 1973. Geodesic motions in the Tomimatsu-Sato metric. Physical Review D8:361.

Browne, Cornelius P.

J.D. Goss, C.P. Browne, and A.A. Rollefson. 1973. Mass discrepancy in the iron re-

gion. Physics Review Letters 30:1255. A.F. Hrejsa and C.P. Browne. 1973. Large isospin selection-rule violation in the  $^{20}$ Ne(d, $\alpha$ ) $^{18}$ F reaction. Physical Review

Cushing, James T.

C-J. Chen and J.T. Cushing. 1973. Coulomb correlations to  $\pi\pi$  scattering. Physical Review D8:542.

Darden, Sperry E.
J.A. Aymar, H.R. Hiddleston, S.E. Darden, and A.A. Rollefson. 1973. Spin assignments in  $^{59}$ Ni from the  $^{58}$ Ni(d,p) $^{59}$ Ni reaction. Nuclear Physics A207:596.

Marshalek, Eugene R.

J. Krumlinde and E.R. Marshalek. 1973. A solvable model for describing quasi-rotational bands in transitional nuclei. Nuovo Cimento Letters 7:679.

E.R. Marshalek and J. da Providencia. Sum rules, random-phase-approximation, and constrained self-consistent fields. Phys-

ical Review C7:2281.

Rollefson, Andre A. J.D. Goss, A.A. Rollefson, C.P. Browne, R.A. Blue, and H.R. Weller. 1973. <sup>15</sup>C states via the  $^{14}C(d,p)^{15}C$  reactions. Physical Review C8:514.

Miss Marie Lawrence Memorial Library Social Sciences Notre Dame. Ind. 46556

# notre dame report

An official publication published fortnightly by the University of Notre Dame, Department of Information Services. Individual copies are available in the Notre Dame Hammes Bookstore at 50 cents. Mail subscriptions are \$9 an academic year. Back copies are 50 cents each. Vol. 3, No. 3

October 12, 1973

Mary Catherine Stevens, Editor Publications Office, 209 Administration Building Notre Dame, Indiana 46556 219:283-1234