

'77-'78

# notre dame report

## contents

March 17, 1978

### the university

- 299 Laetare Medal Awarded
- 299 Provost Candidates Made Public
- 300 'Campaign for ND' Gifts
- 300 Faculty Research Fellowship
- 300 Art Exhibits
- 300 Daily Crypt Mass

### faculty notes

- 301 Appointments
- 301 Honors
- 301 Activities

### office of advanced studies

#### Notes for Principal Investigators

- 303 National Institutes of Health Notation on Research and Training Grant Applications

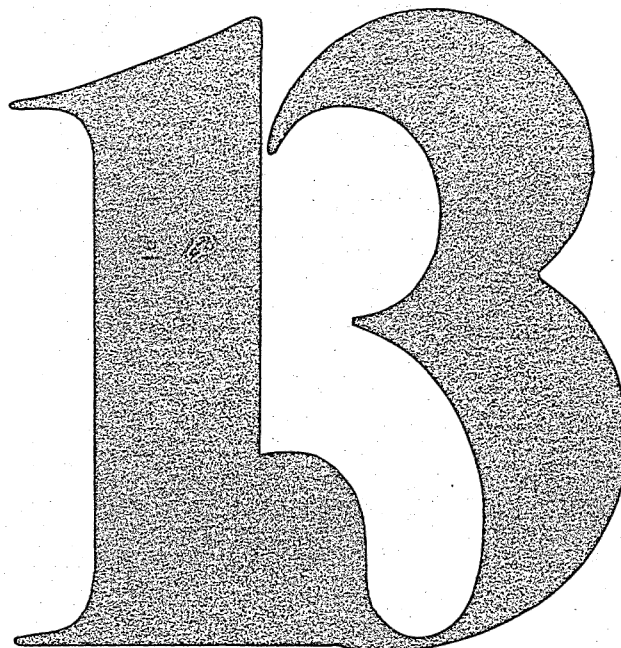
#### Information Circulars

- 303 American Council on Education Cooperative Personnel Exchange (No. FY78-143)
- 303 National Endowment for the Humanities Institutes and Workshops (No. FY78-144)

- 303 The Ford Foundation and The Rockefeller Foundation A Research Program on Population and Development Policy (No. FY78-145)
- 304 Office of Naval Research Carl E. Menneken Fellowship for Scientific Research (No. FY78-146)
- 304 Current Publications And Other Scholarly Works
- 309 Closing Dates for Selected Sponsored Programs

### documentation

- 310 Faculty Senate Journal January 19, 1978
- 314 Minutes of the 179th Meeting of the Graduate Council January 16, 1978
- 315 Report D Review of the Graduate Program of the Department of Chemistry



---

# the university

---

## Laetare Medal Awarded

Msgr. John Tracy Ellis, considered one of the most influential scholarly commentators on the American Church since World War II, has been named the 1978 recipient of Notre Dame's Laetare Medal. Currently teaching on a post-retirement appointment at the Catholic University of America in Washington, D.C., the historian is only the second clergyman to receive the award since it was opened to clergy and religious in 1968.

A native of Seneca, Ill., Msgr. Ellis received his A.B. degree from St. Viator College in 1927, his M.A. from Catholic University in 1928 and his Ph.D. from the same university in 1930. The 72-year-old church historian began teaching in 1930 at St. Viator, joined the faculty of Catholic University in 1934, was ordained in 1938, and taught at the University of San Francisco in 1964 until his recent retirement.

His landmark 1955 essay, "American Catholics and the Intellectual Life" is credited with spurring Catholic colleges and seminaries across the country to higher educational standards. Msgr. Ellis has also served as editor of the Catholic Historical Review and as president of both the American Catholic Historical Association and the American Society of Church History. He is recognized for his research scholarship, and his major works include "The Life of James Cardinal Gibbons, Archbishop of Baltimore," 1952; his Walgreen Lectures at the University of Chicago, "American Catholicism," 1956; "The Formative Years of the Catholic University of America," 1946, and "A Guide to American Catholic History," 1959.

The oldest and most prestigious award of its kind, the Laetare Medal is announced each year on the Fourth Sunday of Lent, from which it derives its name. Founders of the award patterned it after a papal honor dating from the 11th century, and Notre Dame first awarded it to Historian John Gilmary Shea in 1883.

## Provost Candidates Made Public

The Search Committee to advise Notre Dame's president on candidates for the position of provost at the University has announced that its interviewing procedures for candidates will include their meeting with all members of the Academic Council, the major academic policy-making body on campus.

In a letter to council members, Committee Chairman O. Timothy O'Meara, Kenna professor of mathematics, noted that this meeting would make more meaningful the consultation which Father Hesburgh will have with all the elected members of the council regarding all serious candidates for provost. O'Meara said the names of candidates would be made public as they are interviewed, but that evaluations of their qualifications subsequent to the Search Committee would be held in strictest confidence.

Thus far, the committee has announced that the following persons have been interviewed for the position:

Thomas B. Day, acting vice chancellor for academic affairs, University of Maryland. A physicist, Day received his doctorate from Cornell University in 1957.

Janet L. Travis, provost, Northern Kentucky University. A philosopher, Travis received her doctorate from Boston University in 1969.

The committee plans to submit its recommendations to Father Hesburgh in March.



## 'Campaign for ND' Gifts

--A \$300,000 Prinster Scholarship Fund from members of the Prinster family will enable Notre Dame to help gifted but needy students. Eventually providing financial assistance to students in each of the four undergraduate years, the gift comes from Mr. and Mrs. Joseph C. Prinster, Mr. and Mrs. Leo T. Prinster, Ms. Martha Prinster, Mr. and Mrs. Frank Prinster and Mrs. Josephine Prinster DeOnier. The Prinsters, who have had two sons and a daughter of the family graduate from Notre Dame, operate the City Market Stores, a grocery chain headquartered in Grand Junction, Colo.

The Campaign for Notre Dame is seeking \$12 million to meet the cost of student financial aid. To date, Notre Dame has reached 64 per cent or \$83.1 million of its \$130 million development program goal in a little less than a year, its campaign co-chairmen John T. Ryan and Ernestine Carmichael Raclin have reported. Some 33,231 gifts or pledges have been received from individuals, foundations, corporations and estates.

## Faculty Research Fellowship

One of the nation's leading accounting firms, Coopers and Lybrand, announced support Feb. 22 of a \$100,000 faculty research fellowship in the College of Business Administration at Notre Dame. The gift will support a faculty member for concentrated research on a specific project to be approved in advance by competition within the faculty and recommended by a faculty committee.

Preliminary planning for the Coopers and Lybrand fellowship provides for released time and research funds for the faculty member selected to conduct the project. It is expected the project would be completed during a semester and a summer or two semesters of part-time teaching and a full summer session.

At the same time, the accounting firm has designated Notre Dame as one of ten target universities in the country for accelerated recruiting and support. Representatives of the firm have made periodic visits to the campus in an effort to recruit senior accountancy students in the past. Monetary gifts of graduates employed by the firm are matched by Coopers and Lybrand.

## Art Exhibits

--The American Indian Collection of Notre Dame's Art Gallery is on display in the O'Shaughnessy Hall studios. Some of the items are believed to have been collected by Rev. Edward F. Sorin, C.S.C., the University's founder who took possession of territory once occupied by Potawatomi and Miami tribes in 1842. Included is a rare Blackfoot war shirt decorated with porcupine quillwork, beaded moccasins, pottery, baskets, paintings, blankets, masks and ritual objects. Tribes represented are the Huron and Mohawk from eastern woodlands; Sioux, Cheyenne and Blackfoot from the central and northern plains; Pueblo and Apache from the southwest and northwest coast tribes, and Eskimo. Many of the items were contributed to the University by a 19th century missionary in Montana, Fr. E.W.J. Lindesmith.

Photographic essays on migrant workers, Welsh miners, Pittsburgh, Albert Schweitzer and Japan are included in an exhibition of W. Eugene Smith in the Art Gallery during March. The traveling exhibition was organized by the International Museum of Photography at George Eastman House and includes 24 original photographs made between 1944 and 1962.

Other exhibits during March include Recent Acquisitions and Masterworks in the Permanent Collection. The Notre Dame Gallery in O'Shaughnessy Hall is open weekdays from 10 to 5 and weekends from 1 to 5. The gallery is also open Thursday evenings from 7 to 9 p.m. for special programs and viewings.

--Notre Dame's collection of author Eric Gill's sculpture, literary and art works is on display in the University's Memorial Library Concourse. A broad spectrum of books, hundreds of engravings, more than one hundred original photographs of Gill's sculpture and numerous woodblock metal photograph plates are included in the collection contributed by John Bennett Shaw, a Notre Dame alumnus, or purchased from worldwide dealers.

## Daily Crypt Mass

Mass is held in the crypt on Monday through Friday at 12:10 p.m. for all staff, students and faculty. Rev. Edward O'Connor, C.S.C., will celebrate the Mass on Mondays, Wednesdays and Fridays and Rev. Jerry Knoll, C.S.C., staff chaplain, will celebrate the Mass on Tuesdays and Thursdays.

# faculty notes

## Appointments

Edmund T. Price has been appointed Summer Housing Coordinator, succeeding Rev. Gregory Green, C.S.C., effective immediately.

## Honors

Thomas P. Bergin, dean of the Center for Continuing Education, has been named to the National Advisory Committee on the Arts and Aesthetic Education to formulate policy for overall quality programming in maintaining national and international interest in the arts and aesthetic education.

Joseph Blenkinsopp, professor of theology, has received a National Religious Book Award for his book, Prophecy and Canon: A Contribution to the Study of Jewish Origins, published in 1977 by the University of Notre Dame Press.

Alan Dowty, associate professor of government and international studies, has been appointed to the editorial board of the Middle East Review and to the Faculty Advisory Cabinet of the United Jewish Appeal.

Robert H. Schuler, director of the Radiation Laboratory and professor of chemistry, has been elected a Fellow of the American Association for the Advancement of Science.

James I. Taylor, chairman and professor of Civil Engineering, has been elected president of the Educational Division of the American Road & Transportation Builders Association.

K.T. Yang, chairman and professor of aerospace and mechanical engineering, has been appointed to the Subcommittee on Engineering Chemistry and Energetics Section of the Advisory Committee on Engineering of the National Science Foundation. He also has been appointed by the American Society of Mechanical Engineers to the Max Jakob Awards Committee for a three year term, 1978-81, the joint American Society of Mechanical Engineers (ASME)-American Institute of Chemical Engineers (AIChE) committee responsible for the world-wide selection for the highest honor in the field of heat transfer, the Max Jakob Memorial Award.

## Activities

"Growth With Equity", a conference which presented new alternatives for development in Third and Fourth World countries, was held at Notre Dame Feb. 24-26. Charles K. Wilber, chairman and professor of economics, chaired the conference. Participants included Rev. Theodore M. Hesburgh, C.S.C., University president; John H. Yoder, professor of theology and Kenneth P. Jameson, associate professor of economics. Respondents included Rev. David Burrell, C.S.C., chairman of theology, professor of philosophy; Rev. Don McNeill, C.S.C., director of the Center for Experiential Learning, Basil O'Leary, adjunct assistant professor of theology; Animesh Ghoshal, assistant professor of finance; Michael Francis, professor of government and international studies; Susan Carter, part-time instructor of economics; Richard Newfarmer, assistant professor of economics; Sr. Jane Pitz, C.S.J., campus ministry, and Lee Tavis, professor of finance.

On Feb. 23, "Aspects of African Culture: Tradition and Change" symposium was held at Notre Dame's Art Gallery. Speaking were Moirra Geoffrion, assistant professor of art: "The Decorative Aspect of African Art: Function and Technique"; James Bellis, associate professor of sociology and anthropology: "Archeological Finds in Ghanaian Gold Dredges"; James Stewart, visiting professor of English: "New Poetry from Africa: Malawi."

Joan Aldous, Kenan professor of sociology, was a discussant on "Living Male: In View of the Family," at a Plenary Session of the annual meeting of the Indiana Council on Family Relations, Feb. 21 in Indianapolis.

Rev. David Burrell, C.S.C., chairman of theology professor of philosophy, spoke on "Knowing God in the Catholic Tradition: John of the Cross and Ignatius of Loyola" at Depauw University, Greencastle, Ind. on Feb. 22.

William Cerny, chairman and professor of music, presented an "All Schumann" piano recital Feb. 22 in the Memorial Library Auditorium.

Walter R. Davis, professor of English, gave two lectures: "Allegory and Role-Playing: Jonson's Masques and The New Inn" at the Modern Language Association meeting, Chicago, Dec. 27; and "Boccaccio: The Implications of Binary Form" at the University of Pennsylvania, Feb. 16.

Alan Dowty, associate professor of government and international studies, was a participant in the Faculty Advisory Seminar in Israel, Jan. 27-Feb. 5. He was also interviewed on recent developments in the Middle East on "Campus View", WNDU-TV, on Nov. 27, and was an invited participant of the Scholar-Diplomat Seminar on the Near East, at the Department of State, Washington, D.C., Jan. 16-20.

Edward M. Gaffney, associate director of the Center for Constitutional Studies, spoke on "Law and Gospel Reconsidered: The Impact of Recent Federal Legislation on Seminaries" at the Luthern Seminary Presidents and Deans Conference in Chicago, Feb. 8.

Moirra Geoffrion, assistant professor of art, had work accepted in juried exhibition at the Museum of Arts and Sciences, Evansville, Ind., during February and held a two-person exhibition at the Art Gallery, College of Fine Arts, University of Nebraska, Omaha, in February.

R.J. Havlik, assistant director for technical services for the Memorial Library, delivered a talk entitled "Cast Iron Banks in American History and Technology" at the South Bend Chapter Pilot Club International on Feb. 22 in South Bend.

During the next few months selections performed by the Notre Dame Chorale, under the direction of David Clark Isele, will be heard on over 278 radio stations throughout the nation on JOY, a mass media ministry of the International Luthern Laymen's League, and is hosted by Rev. Alvin Rueter.

A. Murty Kanury, associate professor of aerospace and mechanical engineering, lectured at the School of Mechanical Engineering, Purdue University, Feb. 23, on "Fire and Combustion Studies at Notre Dame."

Douglas Kinsey, associate professor of art, had a major show of 50 paintings, etchings and drawings at Northern Kentucky State University, Fort Thomas, Ken., from Feb. 6 to March 4. He has also acted as visiting artist for five days.

Madonna C. Kolbenschlager, H.M., assistant professor of American studies, spoke on "Barriers to Women's Self-realization" at a Women's Forum sponsored by the Atlanta Conference of Sisters in Atlanta Feb. 25.

John R. Lloyd, associate professor of aerospace and mechanical engineering, presented a seminar to the Department of Mechanical Engineering at Louisiana State University, Baton Rouge, La., on Feb. 15 entitled "Fire and Smoke Spread in Corridors."

G.D. Loescher, assistant dean of the College of Arts and Letters and concurrent assistant professor of government and international studies, delivered a paper on "Human Rights in the Socialist Republic of Vietnam" at a panel entitled "Revolutionary Societies and Human Rights in Asia" at the International Studies Association Annual Meeting held in Washington, D.C., Feb. 22-26.

Philip R. Moots, director of the Center for Constitutional Studies, spoke on "Public Funding Implications for Campus Governance and Publications Policy" at the annual meeting of the National Catholic Educational Association in Washington, D.C., Feb. 6.

Robert E. Pitts, assistant professor of marketing, presented a paper entitled "Factors Influencing Marketing and Other Major Fields" at the Southeastern Meetings of the American Institute for Decision Sciences held in Jacksonville, Fla., Feb. 15-18.

Morris Pollard, chairman and professor of microbiology, spoke on "Current Trends in Antiviral Therapy" at the "Antibiotic Therapy Symposium II", directed by Robert Devetski, adjunct associate professor of microbiology, held at Notre Dame on Feb. 22.

Thomas J. Schlereth, associate professor of American studies, gave a presentation, "The City as Artifact," at the Indianapolis Museum of Art, Indianapolis, March 3.

Anthony M. Trozzolo, Huisking professor of chemistry, presented a plenary review lecture on "Bimolecular Photochemical Processes" at the 13th Informal Conference on Photochemistry, Clearwater Beach, Fla., Jan. 4-7.

Robert W. Williamson, chairman and associate professor of accountancy, was coordinator of a workshop on Management by Objectives sponsored by the American Accounting Association in Denver, Colo., Feb. 9-11.

---

# office of advanced studies

---

## Notes for Principal Investigators

### National Institutes of Health Notation on Research and Training Grant Applications

Application forms are under revision to include a check block indicating whether or not recombinant DNA research is involved. Until such time as these forms are available, applicants should specify in capital letters at the bottom of the first page of the application "THIS APPLICATION DOES/DOES NOT INVOLVE RECOMBINANT DNA." Labeling the face page of the application will assist in expediting the processing of the application.

## Information Circulars

Additional information on all circulars listed below may be obtained by calling Ext. 7378, 7432 or 7433.

### American Council on Education Cooperative Personnel Exchange

No. FY78-143

The Office of Leadership Development in Higher Education, American Council on Education, provides assistance to professional development programs for faculty members and administrators and for education association executives. The Council's Exchange Program will broker one-or-two year exchanges of faculty and administrators between ACE member institutions and organizations and the federal government, corporations, higher education associations and other colleges and universities.

#### Exchange Programs Include:

- National Visiting Faculty and Administrators
- Higher Education Association Interns

#### Deadline:

May 1, 1978.

## National Endowment for the Humanities Institutes and Workshops

No. FY78-144

In order to encourage improved teaching of subjects in the humanities the National Endowment for the Humanities is sponsoring a variety of summer institutes and workshops. Faculty members at colleges, universities and community colleges are eligible to attend. Although these programs vary in scope, approach and in criteria for selection of participants, they have in common the principal goal of improved curriculum and teaching at the institutions to which participants return after the institute or workshop.

Detailed information about the programs may be obtained from the project directors. Faculty members who are interested in attending an institute should contact its director immediately, since the deadlines for application to some of these programs are in the near future.

A complete listing of the institutes and workshops is available in the Office of Research and Sponsored Programs, Extension 7432.

## The Ford Foundation and The Rockefeller Foundation A Research Program on Population and Development Policy

No. FY78-145

The Ford Foundation and the Rockefeller Foundation have announced a worldwide program of awards in support of research relevant to the formulation, implementation and evaluation of population policy as it relates to social and economic development. Of particular interest are proposals that may help in closing the gap between research and policy planning.

#### Illustrative Research Areas:

- Interrelation of population policies and other development policies, particularly with respect to food, energy and employment
- Translation of knowledge regarding population and development interrelations into concrete policy models
- Formulation of comprehensive strategies to achieve reductions in population growth rates

- Impact of government programs in such areas as rural development, health, education, housing, social security and transportation on rural to urban migration and/or fertility
- Assessment of demand for employment, housing, education, health, energy and/or food in urban and rural areas under current and alternative rates of natural increase and migration
- Organizational determinants of effectiveness in the implementation and administration of population policies
- Consequences of alternative population growth rates on short- and long-term requirements for agricultural products, especially the basic food crops and animal species
- Interrelations among infant and child mortality, nutrition, age at marriage, socioeconomic factors and fertility
- Simulation of the economic, social and/or demographic consequences of alternative population and development policies at various levels of assumed effectiveness
- Cost-benefit analysis of alternative family planning programs
- Policy implications of internal and international migration trends
- Patterns of support for and resistance to population policy among elites, interest groups and the public

#### Duration and Budget:

The research should begin in 1979, on or after January 1, and be fully completed within two years. In no case will an award exceed \$25,000, and a grant approaching this magnitude will be rare. Indirect costs are not allowed.

#### Deadline:

July 1, 1978. Awards will be announced in December 1978.

### Office of Naval Research Carl E. Menneken Fellowship for Scientific Research

No. FY78-146

The Carl E. Menneken award was established to honor the memory of a man whose entire professional career was devoted to science and engineering and to the United States Navy. He served as the Dean of Research Administration and as Professor of Electronics at the Naval Postgraduate School; he was a naval officer during World War Two and served as a member and chairman of many Navy-wide scientific advisory committees in addition to tours with the Office of Naval Research.

The dual objective of the \$1,000 Menneken Fellowship is:

- To further the progress of engineering and science in areas of importance to the Navy.
- To provide aid to a worthy doctoral student who is involved in a research program the fruits of which are expected to benefit the Navy.

Candidates should submit the topic and a brief description of their thesis with a supporting statement from the candidate's thesis advisor to the Office of Naval Research (733), 800 North Quincy Street, Arlington, Virginia 22217, postmarked no later than April 1, 1978.

Selection of the winner of the Carl E. Menneken fellowship will be announced by the Naval Postgraduate Foundation, Inc., during April 1978 for the 78-79 academic year.

## Current Publications And Other Scholarly Works

The list below includes works completed in Calendar Year 1976 and not previously reported in Notre Dame Report.

### ENGINEERING

#### Aerospace and Mechanical Engineering

Ariman, Teoman

T. Ariman. 1976. Pretest analysis S1SF in-reactor experiment P1. In, D.H. Thompson, ed. ANL/RAS 75-41, Argonne National Laboratory.

T. Ariman and R.F. Hegarty. 1976. On analysis of cracked pressure vessels under seismic loads. Pages 222-224 in, Proceedings of 4th National Meeting of Universities Council for Earthquake Engineering Research, USEER.

T. Ariman and D.J. Helfritch. 1976. On the effect of humidity on the pressure drop in a baghouse simulator. Pages 1-16 in, AICHE-82nd National Meeting, Paper No. 53e.

T. Ariman, R.D. Pierce, C.A. Youngdahl and B.E. Laparack. 1976. Mechanical response of FFTF reference and P1 cladding tubes under transient heating. Pages 77-81 in, Reactor Development Progress Report, May-June, ANL-RDP-51, Argonne National Laboratory.

Atassi, Hafiz

H. Atassi and M.E. Goldstein. 1976. Unsteady aerodynamic forces acting on loaded two-dimensional blades in nonuniform incompressible flows. Revue Francaise de Mecanique, October 1976:47-56.

Kanury, A. Murty

A.M. Kanury, N.J. Alvares and S.B. Martin. 1976. Flammability Testing of Polymers. Manufacturing Chemists Association, Washington, D.C. x + 169 pp.

Lloyd, John R.

A.C. Ku, M.L. Doria and J.R. Lloyd. 1976. Numerical modeling of unsteady buoyant flows generated by fire in a corridor. In, Sixteenth Symposium (International) on Combustion. The Combustion Institute, Pittsburgh, Pennsylvania.

Morris, Edward E.

E.E. Morris. 1976. Comparison of multigroup and point-energy transport calculations in sodium. Transactions of the American Nuclear Society 24: 407-408.

Nelson, Robert C.

R.C. Nelson. 1976. Dynamic behavior of an aircraft encountering aircraft wake turbulence. Journal of Aircraft 13:704-708.

W.C. Clark and R.C. Nelson. 1976. Body vortex formation on missiles at high angles of attack. AIAA Paper No. 76-65, 7 pp.



Roberts, William B.

W.B. Roberts. 1976. The relativistic dynamics of sub-light speed interstellar ramjet probe. Journal of the British Interplanetary Society 29(12): 795-812.

Szewczyk, Albin A.

A.A. Szewczyk and C. Fiscina. 1976. Low turbulence shear flows past a finite rectangular cylinder. Bulletin of the American Physical Society 21(11): 1225.

R. Betchov and A.A. Szewczyk. 1976. Numerical studies of Taylor Green vortices. Bulletin of the American Physical Society 21(11):1223.

W.T. Sha, A.A. Szewczyk and E.I.H. Lin. 1976. Transformed governing equation for triangular grid structure used in thermal hydraulic subchannel analysis. Technical Memorandum, Argonne National Laboratory, ANL-CT-76-51.

#### Architecture

Bellalta, Esmee C.

E.C. Bellalta. 1976. Ecology and architecture. International Publication in Architecture, Library University Catolica de Chile 4:265.

#### Chemical Engineering

Carberry, James J.

J.J. Carberry. 1976. Dynamics of tube-wall reactor. Chemical Engineering Science 31:1071.

J.J. Carberry. 1976. Experimental techniques for parameter estimation for chemical reactors. Chemical Reaction Engineering Proceedings DECHEMA, Frankfurt, Germany 2:443.

J.J. Carberry. 1976. Chemical and Catalytic Reaction Engineering. McGraw-Hill.

Kohn, James P.

H. Yang, K.D. Luks and J.P. Kohn. 1976. Phase equilibria behavior of the system carbon dioxide-n-butylbenzene-2-methylnaphthalene. Journal of Chemical Engineering Data 21:330-335.

J.P. Kohn, K.D. Luks and P.H. Liu. 1976. Three phase solid-liquid-vapor equilibria of binary-n-alkane systems (ethane-n-octane, ethane-n-decane, ethane-n-dodecane). Journal of Chemical Engineering Data 21:360-362.

Varma, Arvind

A. Varma, C. Georgakis, N.R. Amundson and R. Aris. 1976. Computational methods for the tubular chemical reactor. Computer Methods in Applied Mechanics and Engineering 8:319-330.

Wolf, Eduardo E.

E.E. Wolf and T. Vermeulen. 1976. A multiple layer cross-flow configuration of preparative chromatography of multicomponent mixtures. Industrial and Engineering Chemistry, Process Design and Development 15(4):485-490.

#### Civil Engineering

Irvine, Robert L.

B.P.J. Higgins, S.C. Mohleji and R.L. Irvine. 1976. Lake treatment with fly ash, lime and gypsum. Journal of the Water Pollution Control Federation 48(9):2153-2164.

Long, Gary D.

C.H. Buttke, D. Cherepacha, J.A. Fehr, C.R. Fleet, L. Gassman, L.V. Hammel, H.A.J. Kuhn, C.L. Lefler, G.D. Long and J.B. Saag. 1976. Trip generation. Traffic Engineering 46(10):42-47.

C.H. Buttke, D. Cherepacha, J.A. Fehr, C.R. Fleet, L. Gassman, L.V. Hammel, H.A.J. Kuhn, C.L. Lefler, G.D. Long and J.B. Saag. 1976. Trip Generation. Institute of Transportation Engineers, Arlington, Va. iii + 363 pp.

Taylor, James I.

J.I. Taylor and H.T. Thompson. 1976. Traffic Control and Operations, Part 1. Intext, Inc., Scranton, Pennsylvania. iii + 62 pp.

J.I. Taylor and H.T. Thompson. 1976. Traffic Control and Operations, Part 2. Intext, Inc., Scranton, Pennsylvania. iii + 56 pp.

S.G. Bali, H.W. McGee and J.I. Taylor. 1976. State of the Art on Roadway Delineation Systems. Department of Transportation Report No. FHWA-RD-76-73. vi + 95 pp.

Theis, Thomas L.

T.L. Theis and J.V. DePinto. 1976. Studies on the Reclamation of Stone Lake, Michigan. Environmental Protection Agency, Ecological Research Series Report, EPA-600/3-76-106. 94 pp.

#### Electrical Engineering

Gabriel, Garbaret J.

G.J. Gabriel. 1976. Fourier transform in EM scattering. Proceedings of National Conference on Electromagnetic Scattering 1:161-163.

Gajda, Jr., Walter J.

W.J. Gajda, Jr. 1976. A three-week, resident introduction to engineering course for high school women. Pages 139-144 in, Proceedings of the Frontiers in Education Conference.

Liu, Ruey-wen

L. Jenkins and R. Liu. 1976. Stability of flows of a dynamic flow network. IEEE Transactions on Circuits and Systems CAS-28(12):826-829.

R. Liu and L.C. Suen. 1976. An MDR model of the United States economy. Pages 690-694 in, Proceedings on the International Conference on Cybernetics and Society.

Massey, James L.

J.L. Massey. 1976. Methods of alleviation of ionospheric scintillation effects on digital communications. Pages 279-287, in, W.G. Schmidt and G.E. LaVean, eds. Communication Satellite Developments: Technology; Progress in Astronautics and Aeronautics Series, Vol. 42. MIT Press, Cambridge, Massachusetts.



- J.L. Massey. 1976. The statistical significance of error probability as determined from decoding simulations for long codes. Pages 63-64, in, Proceedings of 7th Annual Pittsburgh Conference on Modeling and Simulation.
- Melsa, James L.
- J.L. Melsa and J.D. Tomcik. 1976. Linear predictive coding with additive noise for application to speech digitization. In, Proceedings of the 1976 Allerton Conference on Circuits and Systems, Allerton, Illinois. Sept. 29 - Oct. 1, 1976.
- Sain, Michael K.
- P. Hoppner and M.K. Sain. 1976. Data display improvement for a social system simulator. Pages 376-381 in, Proceedings of the Seventh Pittsburgh Conference on Modeling and Simulation, W.G. Vogt and M.H. Mickle, eds. Instrument Society of America, Pittsburgh, Pennsylvania.
- Uhran, Jr., John J.
- F.J. Bonello, W.I. Davisson and J.J. Uhran, Jr. 1976. Modeling production: Alternative procedures. Pages 125-129, in, International Conference on Systems, Man and Cybernetics.

#### Metallurgical Engineering

- Allen, Charles W.
- C.W. Allen and P.R. Okamoto. 1976. An imaging technique in transmission electron microscopy utilizing diffraction fine structure. Phys. Stat. Sol. (a) 36:107-116.
- C.W. Allen, K.C. Liao and A.E. Miller. 1976. Fault structures in rare-earth-cobalt intermetallics. Proceedings of the 12th Rare-Earth Research Conference I:274-283.
- Atrens, Andrejs
- A. Atrens and I.G. Ritchie. 1976. Comment on analysis of the amplitude dependent damping data in terms of the Granato-Lücke model. Scripta Metallurgica 10:211-214.
- I.G. Ritchie, H.E. Rosinger and A. Atrens. 1976. An elastic relaxation and the diffusion of oxygen in alpha-zirconium. Journal of Nuclear Materials 62:1-8.
- I.G. Ritchie, A. Atrens and C.H. Woo. 1976. Estimation of the number of pinning points per network length from an analysis of an amplitude dependent damping peak. Scripta Metallurgica 10.
- H.E. Rosinger, D. Faulkner, A. Atrens and I.G. Ritchie. 1976. Effect of Praseodymium on the internal friction in a zirconium-oxygen single crystal. Journal of Nuclear Materials 62:121-122.
- Fiore, Nicholas F.
- J. Hofweber, N.F. Fiore and W.T. Ebihara. 1976. Effects of solidification substructure on the properties of a nickel base superalloy. Journal of Materials Science and Engineering 27:157-162.
- D.S. Kupperman, N.F. Fiore and K.J. Reimann. 1976. Ultrasonic investigation of welds in cast stainless steel. In, Proceedings of the Eighth World Conference on NDT, Vol. 1, Cannes.
- Kuczynski, George C.
- G.C. Kuczynski. 1976. Statistical theory of sintering. Zeitschrift für Metallkunde 67:606-610.
- A. Klimasara, N.F. Fiore, G.C. Kuczynski and D.W. Schutt. 1976. Automated resonance bar damping measurement system: Review of Scientific Instruments 47(9):1163-1166.

- Miller, Albert E.
- A.E. Miller and T. D'Silva. 1976. Magnetization and magnetocrystalline anisotropy in some  $R_2Co_{17}$  compounds. Proceedings of the 12th Rare-Earth Research Conference I:85-90.
- C.W. Allen, K.C. Liao and A.E. Miller. 1976. Fault structures in rare earth-cobalt intermetallics. Proceedings of the 12th Rare-Earth Research Conference I:276-280.
- A.E. Miller, T. D'Silva and H. Rodrigues. 1976. Magnetization, magnetocrystalline anisotropy and magnetostriction of  $Tb_2Co_{17}$ ,  $Ho_2Co_{17}$  and  $Er_2Co_{17}$  single crystals. IEEE Transactions on Magnetics, Vol. MAG-12 6:1006-1009.

#### BUSINESS ADMINISTRATION

##### Accountancy

- Milani, Ken
- J.L. Wittenbach and K. Milani. 1976. Programmed Learning Aid for Federal Income Tax. Learning Systems Company, Homewood, Illinois.
- Pattillo, James W.
- J.W. Pattillo. 1976. Audit Planning and Economics. Crowe Chizek and Co. 38 pp.
- J.W. Pattillo. 1976. Financial Statement Disclosures. Crowe Chizek and Co. 241 pp.
- Williamson, Robert E.
- R.M. Lynch and R.W. Williamson. 1976. Review of Financial Statements and Introduction to Funds Statements. McGraw-Hill Book Co. 49 pp.
- Wittenbach, James L.
- J.L. Wittenbach and K. Milani. 1976. Programmed Learning Aid for Federal Income Tax. Learning Systems Co., Homewood, Illinois.

##### Finance and Business Economics

- Halloran, John A.
- J.A. Halloran. 1976. The Effect of Mortgage Form on Borrower and Lender Risk. Center for the Study of American Business, Washington University Working Paper No. 14. 41 pp.
- Kilbride, Bernard J.
- B.J. Kilbride. 1976. Index funds: Fad or new era in investing? SSI Reports on Financial Management 1(2):1-4.

##### Management

- Chang, Yu-Chi
- Y.C. Chang and K.S. Kim. 1976. Segmented regression analysis in dealing with cross-section quantitative data - In application to consumer attitudes toward gasoline conservation measures. Pages 242-244 in, Proceedings of Social Statistics (1976).
- R. Liu, Y.C. Chang, K.S. Kim and L.C. Suen. 1976. An application of MDR method to modeling of gasoline consumption of United States. Pages 114-125 in, Large-Scale Dynamical Systems.
- Y.C. Chang, K.S. Kim and W. Liu. 1976. The socio-economic determinants of gasoline conservation measures. Pages 423-426 in, Proceedings, 1976 Midwest AIDS Conference Decision Science and the Future of America.

Richard, Sandra

- S. Richard. 1976. Management training - International style via AIESEC. Notre Dame Business Review 10(2):16-17.

Ruhe, John A.

- W.R. Allen and J.A. Ruhe. 1976. Verbal behavior by black and white leaders of biracial group in two different environments. Journal of Applied Psychology 61:441-445.

Ryan, CSV, Leo V.

- L.V. Ryan, CSV. 1976. Economic concerns. Pages 100-101 in, D. Burrell, CSC, and F. Kane, CSC, eds. Evangelization in the American Context, Notre Dame Press, Notre Dame, Indiana.

#### Marketing Management

Furuhashi, Yusaku

- Y. Furuhashi. 1976. Generalized system of Preferences. AMA Marketing News X(1):7.

Stock, James R.

- J.R. Stock. 1976. Transportation. Pages 81-100 in, B.J. Lalonde and P.H. Zinser, eds. Customer Service: Meaning and Measurement. NCPDM, Chicago.

#### LAW

Chroust, Anton-Hermann

- A-H. Chroust. 1976. A tentative outline for a possible reconstruction of Aristotle's lost dialogue On Philosophy. L'Antiquite Classique (Belgium) XLVII (2):553-569.

- A-H. Chroust. 1976. Die Möglichkeit einer Rekonstruktion der Verlorenen Schrift des Aristoteles Über die Philosophie. Acta Philologica Aenipontana (Austria) III(1):17-18.

- A-H. Chroust. 1976. Lucretius, De Rerum Natura II, 1024-1942: A possible fragment of Aristotle's On Philosophy. Symbolae Osloenses (Norway) LI(1):95-103.

- A-H. Chroust. 1976. Lucretius, De Rerum Natura V. 110 ff.: A possible reference to Aristotle's On Philosophy. Acta Classica (South Africa) XVIII (2):141-143.

- A-H. Chroust. 1976. Some comments on Cicero, De Natura Deorum II.15.42-16.44: A fragment of Aristotle's On Philosophy. Classical Folia XXX(2):103-113.

Rice, Charles E.

- C.E. Rice. 1976. Religious neutrality in the Constitution. Faith and Reason 1:4-27.

Rodes, Jr., Robert E.

- R.E. Rodes, Jr. 1976. Law, social change and the ambivalence of history. American Catholic Philosophical Association Proceedings 1975:169-170.

- R.E. Rodes, Jr. 1976. Natural law and the marriages of Christians. The Jurist 35:409-430.

- R.E. Rodes, Jr. 1976. The Legal Enterprise. Kenikat Press, Port Washington, New York. x + 181 pp.

Shaffer, Thomas L.

- T.L. Shaffer. 1976. Learning to face a face. Juris Doctor 6:14-15.

- T.L. Shaffer. 1976. The vices in our great American virtue. Learning and the Law 3:18-19, 61-63.

- T.L. Shaffer. 1976. Advocacy. In, H. Seidel, ed. Proceedings of the Conference on Legal Change for Child Health, American Academy of Pediatrics.

- T.L. Shaffer. 1976. Advocacy as moral discourse. In, Roswell Gallagher Lecture, Society for Adolescent Medicine, Dec. 1976.

- T.L. Shaffer. 1976. Death, property and ideals. In, H. Halbach, ed. American Assembly on the Future of Wealth Transmission, Prentice Hall.

- R. Redmount and T.L. Shaffer. 1976. Learning the law - thoughts toward a human perspective. The Notre Dame Lawyer 51:956-973.

- R. Redmount and T.L. Shaffer. 1976. Lessons law school don't teach. Change 8:50-51.

- R. Hennessey, R. Landies and T.L. Shaffer. 1976. Looking at your law firm as an organization. Law Office Economics and Management 17:160-177.

- H. Bender, S. Hauerwas and T.L. Shaffer. 1976. Law, Ethics and Science (a multigraphed course book).

Wernz, Ann Hart

- A.H. Wernz. 1976. Estate planning for the mentally retarded. In, Annual Notre Dame Estate Planning Institute, 1976 Proceedings.

#### RADIATION LABORATORY

Bentley, Jr., John J.

- J.J. Bentley, Jr. and R.F. Stewart. 1976. Pseudo-atoms in diatomic molecules: Restricted radial functions. Acta Crystallographica A32(5):910-914.

- D.H. Winicur, J.L. Fraites and J.J. Bentley, Jr. 1976. Electronic energy exchange cross sections for  $\text{Ar}^*(^3\text{P})$  and  $\text{Kr}(^1\text{S})$ . Journal of Chemical Physics 64(4):1724-1732.

- D.H. Winicur, J.L. Fraites and J.J. Bentley, Jr. 1976. Low-energy differential elastic scattering of  $\text{Ne}(^3\text{P})$  by  $\text{Kr}(^1\text{S})$ . Journal of Chemical Physics 64(4):1757-1761.

- J.J. Bentley, Jr., J.L. Fraites and D.H. Winicur. 1976. Low-energy elastic and electronic-energy exchange scattering of  $\text{He}^*$  by  $\text{Kr}$ . Journal of Chemical Physics 65(2):653-757.

Chipman, Daniel M.

- D.M. Chipman. 1976. Comment on symmetry - adapted perturbation theories. Chemical Physics Letters 40:147-149.

- D.M. Chipman, B. Kirtman and W.E. Palke. 1976. The perfect-pairing valence bond model for the water molecule. Journal of Chemical Physics 65:2556-2561.

Evans, Richard F.

- R.F. Evans, C.A. Ghiron, W.A. Volkert and R.R. Kuntz. 1976. Flash photolysis of N-acetyl-L-tryptophanamide: Acid-base equilibrium of the radical transients. Chemical Physics Letters 42:43-45.

- R.F. Evans, W.A. Volkert, R.R. Kuntz and C.A. Ghiron. 1976. Flash photolysis of N-acetyl-L-tryptophanamide: Analysis of transients employing vidicon tube detection. Photochemistry and Photobiology 24:3-7.

- R.F. Evans, C.A. Ghiron, R.R. Kuntz and W.A. Volkert. 1976. Flash photolysis of N-acetyl-L-tryptophanamide proton quenching of radical and electron production. Chemical Physics Letters 42:415-418.

- R.F. Evans, C.A. Ghiron, W.A. Volkert, R.R. Kuntz, R. Santus and M. Bazin. 1976. Flash photolysis of N-acetyl-L-tryptophanamide: Evidence for radical production without hydrated electron formation. Chemical Physics Letters 42:39-42.

Ferraudi, Guillermo J.

- J.F. Endicott and G.F. Ferraudi. 1976. Substitutional photochemistry of some monoazido, thiocyanato complexes of Cobalt (III) and Rhodium (III). Some quandries and alternatives for models of excited state reactivity. Journal of Physical Chemistry 80:949.
- I. Inoue, J.F. Endicott and G.F. Ferraudi. 1976. Photoredox energetics of transition metal complexes. A critical probing of the proposed radical acid nitrene pathways in azidoheptaamminerhodium (III). Inorganic Chemistry 15:3098.
- Fessenden, Richard W.
- D. Meisel and R.W. Fessenden. 1976. Electron exchange and electron transfer of semiquinones in aqueous solution. Journal of the American Chemical Society 98:7505-7510.
- R.W. Fessenden and N.C. Verma. 1976. Time resolved ESR spectroscopy III: Electron spin resonance emission from the hydrated electron. Possible evidence for reaction to the triplet state. Journal of the American Chemical Society 98:243-244.
- Hong, Gilbert H-K.
- H-K. Hong. 1976. Reply to Comment on Green's functions in the theories of radiationless transitions, complex molecular cross-sections. Chemical Physics 15:152.
- H-K. Hong and C.W. Jacobsen. 1976. From Raman to fluorescence: A study of resonant Raman effect of the 3300A band of pyrazene with tunable dye lasers. Journal of Chemical Physics 65:2470.
- Hug, Gordon L.
- G.L. Hug and R.S. Becker. 1976. Solvent and temperature effects on natural radiative lifetimes of some substituted polyenes. Journal of Chemical Physics 65(1):55-63.
- T. Takemura, P.K. Das, G.L. Hug and R.S. Becker. 1976. Emission spectroscopy and state ordering of retinals. Journal of the American Chemical Society 98(22):7099-7101.
- R.S. Becker, G.L. Hug, P.K. Das, A.M. Schaffer, T. Takemura, N. Yamamoto and W. Waddell. 1976. Visual pigments. 4. Comprehensive consideration of the spectroscopy and photochemistry of model visual pigments. Journal of Physical Chemistry 80(20):2265-2273.
- Jacobsen, Clayton W.
- H.K. Hong and C.W. Jacobsen. 1976. From Raman to fluorescence: A study of resonant Raman effects of the 3300 A band of crystalline pyrazine with tunable UV lasers. Journal of Chemical Physics 65:2470-2471.
- Levanon, Haim
- A. Friedenbergs and H. Levanon. 1976. Polarized photoelectrons and monomer radicals of alkali metals in THF in the presence of dicyclohexyl 18-crown-6. Chemical Physics Letters 41:84-86.
- Y. Harel, J. Manassan and H. Levanon. 1976. Photo-reduction of porphyrins to chlorins by tertiary amines in the visible spectral range optical and ESR studies. Journal of Photochemistry and Photobiology 23:337-341.
- Maruthamuthu, P.
- P. Maruthamuthu and M. Santappa. 1976. Kinetics of oxidation of hexacyanoferrate (II) by Peroxodiphosphate. Inorg. Chim. Acta 16:35-38.
- P. Maruthamuthu and M. Santappa. 1976. Kinetics of self-decomposition of peroxodiphosphate in aqueous acid medium. Indiana Journal of Chemistry 14A:35-38.
- Mikami, Naohiko
- N. Mikami and M. Ito. 1976. Vibronic coupling involving the ground states of benzene and naphthalene. Journal of Chemical Physics 64:3077-3078.
- Neta, Pedatsur
- P. Neta. 1976. Application of radiation techniques to the study of organic radicals. Advances in Physical Organic Chemistry 12:224-297.
- P. Neta. 1976. Intermediates in the reduction of oximes in aqueous solutions. Radiation Research 68:422-432.
- P. Neta and D. Meisel. 1976. Substituent effects on nitroaromatic radical anions in aqueous solution. Journal of Physical Chemistry 80:519-524.
- P. Neta, M.G. Simic and M.Z. Hoffman. 1976. Pulse radiolysis and electron spin resonance studies of nitroaromatic radical anions. Optical absorption spectra, kinetics and one-electron redox potentials. Journal of Physical Chemistry 80:2018-2023.
- C.L. Greenstock, C.W. Ruddock and P. Neta. 1976. Pulse radiolysis and ESR studies of the electron-affinic properties of nitroheterocyclic radiosensitizers. Radiation Research 66:472-484.
- R.H. Schuler, P. Neta, H. Zemel and R.W. Fessenden. 1976. Conversion of hydroxyphenyl to phenoxyl radicals: A radiolytic study of the reduction of bromophenols in aqueous solution. Journal of the American Chemical Society 98:3825-3831.
- Patterson, Larry K.
- J.L. Redpath and L.K. Patterson. 1976. Radiosensitization of *secreta marcescens* by cetyl pyridinium chloride evidence for membrane related events. Radiology 118:725-726.
- M. Coleman, L.R. Simpson, L.K. Patterson and L. Cohn. 1976. Thyroid cancer associated with radiation exposure. Biological and Environmental Effects of Low Level Radiation, International Atomic Energy Agency, Vienna II:285-289.
- Paul, H.
- H. Paul. 1976. Second order rate constants and CIDEP enhancements of transient radicals in solution by modulation ESR spectroscopy. Chemical Physics 15:115-129.

- Scaiano, Juan C.  
J.C. Scaiano and K.U. Ingold. 1976. Carbon-13 hyperfine splittings in the electron paramagnetic resonance spectra of  $\beta$ -substituted ethyl radicals. Journal of Physical Chemistry 80:275-278.
- J.C. Scaiano and K.U. Ingold. 1976. Electron paramagnetic resonance spectra of radical adducts to di-tert-butylselenoketone. Journal of Physical Chemistry 80:1901-1908.
- J.C. Scaiano and K.U. Ingold. 1976. Kinetic applications of electron paramagnetic resonance spectroscopy. XXV. Radicals formed by spin trapping with di-tert-butylselenoketone. Journal of the American Chemical Society 98:4727-4732.
- J.C. Scaiano and K.U. Ingold. 1976. Radical additions to di-tert-butylselenoketone. Journal of the Chemical Society Chemical Communications 205-206.
- J.C. Scaiano, J.P.-A. Tremblay and K.U. Ingold. 1976. A kinetic study of the reaction of adamantane with 2-adamantanethiol. Canadian Journal of Chemistry 54:3407-3411.
- J.C. Scaiano, P. Schmid and K.U. Ingold. 1976. Bimolecular homolytic substitution of dialkylselenides and tellurides by tri-n-butyltin radicals. Journal of Organometallic Chemistry 121:C4-C6.
- V. Avila, S. Braslavsky and J.C. Scaiano. 1976. Quenching of the Norrish type II reaction of butyrophenone by thiophenic compounds. Journal of Photochemistry 5:194-195.
- Sheng, Shan-Jen  
D.H. Parker, S.J. Sheng and M.A. El-Sayed. 1976. Multiphoton ionization spectrum of trans-hexatriene in the 6.2eV region. Journal of Chemical Physics 65:5534-5535.
- Y. Udagawa, S.J. Sheng and D.M. Hanson. 1976. Stark effects on luminescence spectra of molecular crystals. Journal of Luminescence 12(13):795-797.
- Shimamori, Hiroshi  
H. Shimamori and Y. Hatano. 1976. Mechanism of thermal electron attachment in  $O_2$ - $N_2$  mixtures. Chemical Physics Letters 38(2):242-247.
- H. Shimamori and Y. Hatano. 1976. Thermal electron attachment to  $O_2$  in  $H_2$  and  $D_2$ . Chemical Physics Letters 38(2):242-247.
- Small, Jr., Richard D.  
B. Stevens and R.D. Small, Jr. 1976. The photo-oxidation of unsaturated organic molecules - XV.  $O_2$   $\Delta g$  quenching by bilirubin and biliverdin. Photochemistry and Photobiology 23:33-36.
- Taniguchi, Hitoshi  
H. Taniguchi and Y. Kirino. 1976. An ESR study of the acid dissociation of NH protons in peptide radicals. Radiation Research 67(3):515.
- Y. Kirino and H. Taniguchi. 1976. An ESR study of the acid dissociation of NH proton. 1. Linear peptide radicals and related radicals. Journal of the American Chemical Society 98(17):5089-5096.
- Wong, Maureen  
M. Wong, J.K. Thomas and M. Gratzel. 1976. Fluorescence probing of inverted micelles. The state of solubilized water clusters in alkane/aerosol OT solution. Journal of the American Chemical Society 98:2391-2397.
- M. Wong, C.F. Kulpa and J.K. Thomas. 1976. Kinetic processes in escherichia coli membranes and cells. A laser photolysis study using derivatives of pyrene. Biochim. Biophys. Acta 426:711-722.

#### CENTER FOR CONTINUING EDUCATION

- Bergin, Dr. Thomas P.  
T.P. Bergin. 1976. Hearings before the Subcommittee on Select Education on behalf of the National Foundation on the Arts and Humanities. Pages 80-89 in The Congressional Record, Ninety-Fourth Congress, First Session.
- T.P. Bergin. 1976. The arts as an ideal context. Emphasis, Western States Arts Foundation Newsletter Nov./Dec.

## Closing Dates for Selected Sponsored Programs

Proposals must be submitted to the Office of Research and Sponsored Programs seven (7) calendar days prior to the deadline dates listed below.

Agency	Program	Application Closing Date
National Science Foundation	Oceanography Project Support Proposals	April 30, 1978

---

# documentation

---

## Faculty Senate Journal January 19, 1978

At 7:35 p.m. the chairman, Prof. Paul Conway, called the meeting to order in Room 202 of the Center for Continuing Education and asked Prof. Edward Cronin to offer the prayer. In his prayer Cronin made special reference to Profs. Christopher Fagan and Marshal Smelser, recently deceased. The leadership of the latter was instrumental in founding the Faculty Senate. The Journal for Dec. 6, 1977 was approved unanimously with no revisions. Conway then declared a recess of the meeting so that Thomas Carney, chairman of the Academic and Faculty Affairs Committee of the Board of Trustees, could address the senate and respond to questions. After several brief remarks expressing his interest in and concern for faculty problems, Carney invited questions from the floor. Following past practice, Conway asked each of the chairmen of the standing committees to lead off in turn with a summary of his/her committee's current agenda and related questions.

Prof. James Dougherty began by citing his committee's work on (1) the provost role-description recently approved by the senate and (2) the provost-level faculty review committee (for appointments and promotions). He asked Carney to comment on each of these topics. Carney began by endorsing and complimenting the role-description. He said that the main issue in the appointment discussion for the office of provost was the "successor to the president" question. Under present bylaws, the president must be a member of the Congregation of Holy Cross, so that if the provost were thought of as next in line, he too would have to be a member of the Congregation. Carney said that in his view, the successor assumption should not be made one way or the other. Asked whether the trustees would themselves be involved in the search for provost candidates, Carney said no--that they would approve or disapprove from whatever set of candidates was presented by the Search Committee.

Prof. John Lyon asked whether, by contrast to the previous provost's appointment (and departure), the candidate(s) might be expected to meet with the faculty in advance for discussion and reaction. Carney said that he did not know.

With respect to the provost level faculty review committee, Carney declined comment, observing that the faculty had to educate the trustees here--not the other way around. Lyon then asked whether what many perceived to be a recent toughening of promotion/tenure criteria toward the end of a higher quality university was approved by the trustees as an active concern of their own. Carney replied that although the trustees did see themselves as more active lately in terms of knowledge and interest, they did not see their role as directing administrative decisions on such matters. The trustees, he said, must elect the officers of the University and must concern themselves with the policies of the University. He added that talk of making Notre Dame a "Harvard of the Midwest" is not an aspiration of the trustees--if anything, the hope is to make the University unique.

Prof. Paul Kenney asked whether, when Rev. Theodore Hesburgh, C.S.C., eventually stepped down, there would be a problem "if no qualified C.S.C.'s were available to replace him." Carney, expressing doubt about whether finding a replacement would be impossible, replied that the Fellows would have to change the bylaws in such a circumstance.

Prof. Donald Barrett then asked about the trustees' attitude toward Father Hesburgh's recent pledge to put the Notre Dame faculty in the "number one" category of the American Association of University Professors (AAUP) compensation ratings. Carney responded by saying that the trustees were as enthusiastic as Father Hesburgh on this point and that he thought the endowed chairs would be the most direct route to this goal.

Katharina Blackstead followed up by asking whether there was any time frame attached to the achievement of this goal, to which Carney replied that there was not--and shouldn't be--since it was a matter of first importance to be accomplished as soon as possible.

Blackstead then spoke for the Faculty Affairs Committee and summarized their concerns about (1) changes in University retirement policy; (2) the status of the special professional faculty; and (3) the total compensation package. She asked Carney to give his views about extending the retirement age upward from 65.

Carney said that, in his view, retirement should be compulsory at age 65 since the University "needs a turnover." If we reject 65, he insisted, then it seems that no other age will be satisfactory either and this would be intolerable for the tenure situation. Exceptions would continue to be made for special cases, he noted, but the rule should be retirement at 65.

Prof. Richard Lamanna returned to the salary issue by asking about "the other side" of the question: teaching loads or faculty productivity. Can we have a first rate university and press for larger teaching responsibilities on the part of the faculty? Carney replied by affirming the trustees' interest in excellence by whatever measure, but suggested that the teaching load question was mainly a collegiate issue. Lamanna disagreed, saying that he thought there was a policy issue here higher up than the collegiate level--and Carney said that although he doubted this, he would inquire and get back to Lamanna soon.

Prof. Irwin Press then presented recent figures compiled by Prof. Sarah Daugherty and "peer" institutions by comparison to Notre Dame:

	<u>Median Faculty Salary</u>		
	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>
Big 10	\$17,700 (+\$1400)	\$19,000 (+\$1600)	\$20,000 (+\$1400)
"Peer"	\$16,900 (\$600)	\$18,200 (+\$800)	\$19,400 (\$800)
ND	\$16,300	\$17,400	\$18,600

He then pointed out that at this rate of increase, Notre Dame would never attain similar median salaries.

Carney asked how many persons were involved in the Notre Dame figures, to which Press answered about 500. Carney then observed that this meant \$700,000--a figure well within the value of the projected 40 endowed chairs (at \$28,700 each). Press added that this would be true only if the endowed chairs were, as a matter of policy, given to persons already on the faculty in each department.

Carney then said that it was not, in his view, the place of the trustees to dictate such policies to the administration or to the departments.

Kenney suggested that it might be appropriate for the trustees to raise such questions to the administration if the latter were putting forward the endowed chairs as a solution to the parity problem. Lyon added that if a department lost a position when it got an endowed chair, the question of "inside is outside appointment" to the chair was not clearly relevant. He then went on to ask whether there was an administrative policy to hire a larger percentage of part-time faculty as some recent figures seem to indicate. Carney promised to inquire on this point, adding that he thought it was proper for trustees to get information for faculty on issues which the faculty consider problematic.

Lamanna expressed doubt that there was such a policy on part-time faculty, suggesting that probably the recent increases in faculty fell mostly into the category of "special professional faculty." Sr. Margaret Suerth confirmed this, pointing out that it was related to an increase in those areas where they had previously occupied positions as well as to their introduction into new areas and particularly to the setting up of new research centers during recent years.

Prof. Claude Pomerleau then spoke for the Student Affairs Committee, summarizing its concern to promote more faculty-student interaction outside the classroom as well as a clearer relationship between his committee and the Office of Student Affairs. He asked whether Carney thought that the former point deserved attention, to which Carney replied enthusiastically in the affirmative. He said further that he hoped to facilitate a dialogue among faculty, students, alumni and administration on the implications of the Committee on University Priorities (COUP) report as a step in this direction.

Prof. Joan Aldous then asked Carney to comment on the issues of human rights in the hiring of women and minorities and the recent report on co-education at Notre Dame which suggested that more women be admitted as students. To the first issue, Carney remarked that the trustees continued to consider it very important (though he didn't think women were a minority). With respect to the second issue, he said that the proportion of women students eventually should be allowed to rise, through open applications, to its natural level (about 50-50).

Lyon concluded the questioning by asking Carney for his views on faculty unionization. In his response, Carney affirmed his respect for the unionization movement in the United States generally and locally on the groundskeeper issue. But he disapproved strongly of faculty unionization, insisting that besides involving an unprofessional "categorization" of independent intellectuals, it would seriously hurt relations between administration and faculty.

At this point, Conway thanked Carney on behalf of the senate and expressed the hope that such dialogues might take place regularly.

After a ten minute break, the meeting was reconvened and Conway, in his chairman's report, announced correspondence: (1) from Rev. Ferdinand Brown, C.S.C., on the matter of retirees' completion of elected terms on University committees (no agreement but referral of the senate's motion to Rev. Thomas Blantz, C.S.C., for Academic Council consideration); (2) from Father Brown again on the proposals for Academic Manual revision submitted by the senate last March on the subject of appeals procedures for faculty (suggesting that certain clarifications be worked out with Father Blantz); (3) from Father Hesburgh complimenting the senate's statement on the role of the provost; and (4) from Prof. O. Timothy O'Meara of the Provost Search Committee, also complimenting the statement. Conway also mentioned that he had transmitted the 12 nominees for the Judicial Review Board (all of whom had agreed to serve) to Bro. Just Paczesny.

Blackstead then reported, for the FAC, that at the February meeting her committee would suggest manual revisions having to do with the status and contracts of the special professional faculty.

Press then presented a motion to clarify the senate's proposals (of last March) to the Academic Council. After several friendly amendments, the vote was unanimous in favor of the following:

Change proposed amendment (4) of the March 24, 1977 list of proposed amendments to read as follows:

Amendment (4) in Article III, section 4, subsection (A)

The following replaces the existing fourth paragraph:

If, upon receiving a negative decision, the faculty member believes that (a) inadequate procedures were applied; (b) inadequate criteria were used; or (c) his academic freedom was violated in the decision process for reappointment, tenure, or promotion, he may petition for a hearing by an Ad Hoc Review Committee of his College. Upon receipt of a written request from the faculty member, the College Council shall elect a Review Committee of five tenured members of the College teaching and research faculty to consider the appeal. No member of the petitioner's Department may serve, nor may any person who participated on the original decision. The petition shall set forth in detail the nature of the grievance, and shall contain any factual or other data which the petitioner deems pertinent to his case.



If the Review Committee decides that the Petitioner's case is insufficiently supported, it shall proceed no further, and so notify the petitioner, his Departmental Chairman and Committee on Appointments and Promotions, along with the Dean and Provost, and provide an explanation for its decision. If the Review Committee judges the strength of the Petitioner's case to be such as to warrant further investigation, it shall proceed to collect any information deemed necessary, including evidence in support of their action from those who made the decision under dispute. The Committee then delivers an opinion and rationale to the petitioner, his Chairman and Departmental Committee on Appointments and Promotions, the Dean, Provost and President. The President shall make a determination of the case and deliver his decision in writing to all of the aforementioned individuals and bodies.

And add a new proposed amendment to read as follows:

In Article III, section 4, subsection (a)

the following paragraph is to be inserted between the present first and second paragraphs:

The procedure for reappointment is the same as for appointment.

The meeting adjourned at 9:50 p.m.

Budget report ending Dec. 31, 1977:

Monthly expenditures:

Duplicating and copying	\$41.62
Entertainment	13.45
Postage	6.76
Telephone	24.00
Total	<u>\$85.83</u>

Uncommitted balance = \$1641 (or 86.4 per cent).

Those absent but not excused: Francis Castellino, chemistry; Brian Crumlish, architecture; A. Murty Kanury, aerospace and mechanical engineering; Thomas M. Patrick, finance; Robert E. Rodes, law; Lee A. Tavis, finance and business economics, Kerry J. Thomas, chemistry; James L. Wittenbach, accountancy.

Respectfully submitted,

Kenneth E. Goodpaster  
Secretary

# Minutes of the 179th Meeting of the Graduate Council January 16, 1978

The 179th meeting of the Graduate Council was called to order at 3:30 p.m., Monday, Jan. 16, 1978, in Room 121, Hayes-Healy Center. All members were present except Leo V. Ryan, C.S.V., Rev. Robert J. Austgen, C.S.C., Thomas A. Werge, Kenneth M. Sayre, William C. Grant and Philip A. Rising (excused). Dean Joseph C. Hogan was represented by Edward W. Jerger. Also attending the meeting at the invitation of the council were Jeremiah P. Freeman, Gerald L. Jones, Rev. David Burrell, C.S.C., and Rev. Edward A. Malloy, C.S.C.

## I. MINUTES OF THE PREVIOUS MEETING

The minutes of the 178th meeting were unanimously approved as distributed.

At this point, Chairman Robert Gordon called for a change in the order of the agenda. The council proceeded next to Item IV instead of Item II on the agenda.

## IV. CHANGE IN THE TITLE ON THE PROFESSIONAL MASTER'S PROGRAM IN THE THEOLOGY DEPARTMENT

Father Burrell introduced Father Malloy to the council and talked briefly of the historical reasons for the M.Th. title. In the period of some ten years since its adoption, however, there has been much change both internally and in the professional field. The program, as it now stands, has the characteristics of the Master of Divinity program in other institutions around the country, hence the need for change in nomenclature. Father Malloy, who addressed the council after Father Burrell, added that the degree of Master of Divinity is now the accepted professional theological degree and the new title would give our graduates, in particular the laymen among them, greater access to positions. He noted that the Seminary Faculty with whom the department collaborates fully endorses the change. A motion for the change in the title was presented and carried without dissent. Father Burrell and Father Malloy, then, left the meeting and the council reverted to Item II in the agenda.

## II. GRADUATE CHEMISTRY REVIEW FINAL REPORT

The chairman called on Morton S. Fuchs to present the University Review Committee's Final Report (Report D). Fuchs quickly went over the major points of Report D (attached). He was followed by Gerald L. Jones who linked the reviewers' comments on the library to library allocations for science departments. He alerted the council to the extent of library budget cuts and the "crippling" effect of these cuts on the science collections, in particular on the holdings in scientific periodicals. Jones' second comment was a warning that the external reviewers' reports should be read in light of their personalities.

Jeremiah P. Freeman was next invited to comment on the overall review. He wondered whether we can continue to compete with the Big Ten schools (which are the local competition) in this field in which "impact, reputation and image" are so highly regarded. The University of Illinois alone produces about 60 Ph.D.'s annually. Every school is actively recruiting students. Freeman added that he had not responded to all the comments of the external reviewers because some of them were inconsistent or represented unsupported personal viewpoints.

The review was then opened for general discussion. There was a general consensus that despite the somewhat provocative style of some of the outside reviewers, the general thrust of their comments was on target. Dean Bernard Waldman noted that changes in the site visit schedule and the provost's absence due to illness might have contributed to the external reviewers' impression that the University did not take the review seriously. The visitors' view of the role of the dean vis-a-vis the University administration was also commented on at some length.

David Sparks expressed concern over the present book allocation scheme and recommended that the Graduate Council make its views known to the University. In response to a suggestion, the chairman asked Dean Isabel Charles, Edward W. Jerger and Sparks to serve on an ad hoc committee with the charge of examining the question of library funding at Notre Dame for appropriate recommendations to the Graduate Council.

The discussion continued on the questions of the chemistry faculty's research productivity, scientific leadership in the department, and overhead costs in research grants. Much time was spent on the topic of adequacy of graduate stipends particularly in a highly competitive market. Several council members raised the question of the overall attitude of the University toward graduate education at Notre Dame. Charles proposed that a special meeting should be scheduled to discuss the topic of graduate studies and research in the University.

Since there was no further discussion, the chairman called successively for the motions to receive the University Review Committee's Final Report and the Departmental Response to the external reviewers' reports. Both the Final Report and the Response were accepted unanimously. Freeman and Jones left at this point.

### III. ADMISSION OF NEW GRADUATE FACULTY

The chairman presented the list of faculty members to be recommended for admission to the graduate faculty. The Office of Advanced Studies had considered the credentials of these members and wished to recommend their admission. The motion for admission was called and unanimously carried.

### V. THE CHAIRMAN'S REMARKS

The chairman informed the council that the 180th meeting of the Graduate Council was originally scheduled for Feb. 13. Owing to the fact that the date had been preempted by another University meeting, it was necessary to set a new date. He proposed that the Graduate Council meeting be held on Feb. 20.

Robert Kerby informed the council that in spite of repeated efforts from the Graduate Office, one of the external reviewers of the art program had not yet submitted his site visit report. He proposed that discussion of the final review report on the Art Department be postponed until the 181st Graduate Council meeting. Kerby's recommendation was accepted. The new schedule of the remaining Graduate Council meetings for the spring semester will be as follows:

180th meeting (February 20):	Graduate Studies and Research in the University
181st meeting (March 13):	Art Review
182nd meeting (April 24):	Metallurgy Review
183rd meeting (May):	Microbiology Review

The suggestion that the council hold special meetings for graduate program reviews will be considered for next academic year's meetings.

The meeting was adjourned at 5:20 p.m.

Chau T.M. Le  
Secretary

## Report D Review of the Graduate Program of the Department of Chemistry

(Completed Dec. 29, 1977)

The three members of the external review committee were Orville Chapman (an organic chemist from UCLA), Robert Barker (a biochemist from Michigan State University) and William Flygare (a physical chemist from the University of Illinois, Urbana). On April 13-14, 1977 they visited Notre Dame. During this period they met with several groups of faculty members from the Chemistry Department, with about a dozen graduate students and with several members of the academic administration. They examined the facilities of the department and the Radiation Laboratory and were available one evening to any individual faculty members who wished to talk with them.

Their separate reports were received by mid-May and the departmental response was made in late September 1977.

The reports, individually filed by each of the external reviewers, although quite different in format, were remarkably similar with regard to their tone, criticisms and recommendations. The departmental response, with minor exceptions, does not refer to specific reviewers, and thus confirms this observation.

The reviewers felt that the documentation provided by both the Department of Chemistry and the administration failed to include a specific formulation or statement of goals. In apparent agreement with this, the departmental response was framed in terms of their current goals subdivided into the following categories: Faculty, Graduate Students, Research Support, Library and Facilities. For convenience and clarity we will first summarize the reviewers' reports and the corresponding departmental response within each of the categories referred to above. Our general comments concerning the review process itself will then follow.

#### I. GRADUATE STUDENTS

##### A. Number of Students

All three reviewers emphatically stated that the most serious problem facing the Department's graduate program is the small number of graduate students. Moreover they felt that the problem is exacerbated by the uneven distribution of the students among the departments' four divisions (biochemistry, inorganic chemistry, organic chemistry and physical chemistry). There was agreement that the overall effect of such a small graduate population (33 at the time of the review; 18 of them in biochemistry) endangers the intellectual viability of the entire chemistry graduate program. All three reviewers recommended that to maintain adequate standards of graduate education, or as two of them put it "a critical mass," the graduate population should be at least doubled. This recommendation was conveyed with a sense of urgency.

The departmental response concurs with the above evaluation by stating that, "a major deficiency of our graduate program is the quantity and quality of graduate students." Their stated goal is to achieve a minimum of 75 Ph.D. students, by recruiting an incoming group of 20-25 students each year. A Graduate Recruitment Committee was established in 1976 in order to coordinate a series of activities designed to attract new students. The department feels that this campaign is already starting to "bear fruit," although its full impact will not be felt for another three to five years.

##### B. Reasons for Inadequate Student Numbers

There was unanimous agreement among the reviewers that the major reason for the inability of the department to attract an adequate number of qualified graduate students stems from insufficient financial support. Their collective judgement was that the teaching assistant stipends were just too low to effectively compete with peer institutions. One concrete recommendation (by Flygare) was that stipends should be increased to an 11-month take home pay of at least \$6,500. The departmental response agrees that their stipends are presently non-competitive, but feels that appointments made at the level of \$4,000 for nine months can improve their position. They urge more University help in this area.

The reviewers point out that another source of graduate student funding is from faculty research grants. We will discuss this in more detail under the Research Support section.

Two of the reviewers suggest that the lack of a vigorous and innovative graduate student recruitment program by individual faculty members seems to be a factor which contributes to the low student population. The Chemistry Department admits to some complacency in this area, but as stated previously is taking steps to correct it.

A serious detriment to effective graduate recruitment according to Chapman and Flygare is the departmental requirement that all students must continue to "teach" throughout their entire graduate careers. The departmental response did not comment on this point.

### C. Quality of Current Students

The entire review committee had one formal interview session with about a dozen graduate students. Some comments in reference to the students were : "alert and interested; "impressive, articulate, knowledgeable and anxious to improve the department; and stated that the students were better in person than on paper (in reference to their entering grade point averages and graduate record examination scores). He considers this to be a tribute to the efforts of the chemistry faculty. The departmental response did not refer to these favorable statements.

## II. FACULTY

All of the site-visitors were impressed with the quality of the faculty. Chapman refers to the junior faculty as outstanding; Flygare states that "the professional staff in the Chemistry Department is quite good; some people are truly leaders in their field..." and Barker speaks of the generally high quality of the chemistry faculty. However, in spite of this praise, the reviewers perceived several areas of concern and a lack of unity of purpose between the various divisions of the department. Chapman writes that there "is the lack of a sense of community at Notre Dame." Flygare says "the department does not speak with one voice," and Barker detects an insularity between groups. Furthermore the reviewers sensed a divisiveness not only within the department at all levels, but also a "serious antagonism" between the higher administration and the faculty. With regard to the graduate program they point out that the lack of intra-departmental unity negates the advantages of a smaller department, namely the potential for close personal interaction, and results in limited scientific contact between students of different sub-disciplines. One reviewer, in apparent reference to this problem, felt that the graduate program should provide students with a broader base in chemistry than they are not getting.

Two reviewers made particular reference to recent faculty changes. On the positive side, the ability of Notre Dame to attract young talented scientists was noted and the additions of Profs. Richard Fessenden, Robert Schuler and Anthony Trozzolo were viewed most favorably. However, the departure of Profs. Gerhard Binsch, Angelo Lamola and Ernest Eliel were considered to be important losses. The loss of Eliel was viewed most seriously because his reputation as a scientists was of such magnitude that Chapman and Barker felt that the University lost considerable stature when he left. Moreover, Chapman specifically stated that: "It is also a strongly held view that Notre Dame made no serious attempt to keep Professor Eliel."

The goal with regard to the faculty section of the departmental response is: "To obtain the best performance from all." A formal annual review of the performance of the younger faculty members will be initiated as suggested by Chapman. The department chose not to respond to the other issues raised by the reviewers.

## III. RESEARCH SUPPORT

The reviewers strongly indicated that outside grant support (with the exceptions of the biochemistry and inorganic chemistry groups) was insufficient and felt that such support is essential for the maintenance of a quality graduate program. Reasons that outside support is generally low are, according to them, excessive reliance on funding provided by the Radiation Laboratory, reluctance of some faculty members to submit grant proposals, and certain administrative policies. The departmental response was direct and to the point. Their stated goal is to obtain a "minimum of one research proposal a year from each faculty member."

The reviewers urged the faculty toward more individual initiative in this area, but pointed out that administrative actions or non-action tended to thwart such initiatives. At the intra-departmental level a lack of "a reward system for successful grantsmanship" dulls incentive. The department agrees with this assessment and has indicated in their response that they reaffirm their policy "of weighing proposal activity in consideration of promotion." Furthermore, the departmental chairman "will consider grant activity in assigning salary raises and teaching loads."

Another negative factor which hinders faculty grant success is the Office of Advanced Studies policy which requires an investigator to request outside agencies to pay both a graduate student stipend and tuition, including overhead charges on both. Because of this Barker feels that "support of graduate studies is prohibitively expensive given that tuition costs are high and that overhead is charged on both." Chapman goes further by stating that "paying overhead on student tuition as well as student salaries is discouraging, particularly with the restriction that each student must acquire 72 credit hours for the Ph.D. degree. This seems to me to be bleeding research grants to death." Flygare's position was that although the overhead-tuition issue is an irritation to the department, he learned from Robert Gordon that financial adjustments could be made in this area. Flygare further states that "this point was either missed or rejected by the Chemistry Department." The response of the department with reference to especially Barker's and Chapman's comments is that "these charges (i.e., the University policy of charging tuition) also reduce our competitive positions in obtaining research grants."

Finally one other point made by the reviewers which bears on both graduate student recruitment and obtaining outside grant research support was in reference to the departmental requirement that all graduate students "teach" throughout their graduate career, including those on research assistantships. The reviewers felt that such a policy hinders recruitment, prevents the students from devoting at least a portion of their time to full-time research activities, and in Chapman's words, is "a very sad and damning thing to a graduate program."

#### IV. LIBRARY

Two of the three reviewers commented on the library holdings in chemistry. Both viewed the present holdings as inadequate and deteriorating. The department strongly concurs in its response and in addition points out that recent and projected budget cuts for the science libraries will make it impossible to maintain even these inadequate holdings. Both the reviewers and the department agree that the not so long term effect of this will be to cripple the department's ability to do effective and competitive research. In Chapman's words "the journals are an absolute necessity to science education and research."

#### V. FACILITIES

The reviewers felt that the facilities and instrumentations available in the Radiation Laboratory are outstanding and that the level of instrumentation in the department is fairly good although not enough money is available to maintain the instruments. On the other hand, they agree that the physical facilities of the department are very poor and should be improved. The departmental response strongly concurs and urges the immediate planning of a new research wing. The department also appears to feel the level of instrumentation requires substantial improvement.

#### VI. COMMENTS ABOUT THE REVIEW PROCESS

##### A. Mechanics

Several logistical difficulties were encountered. Flygare did not attend the pre-review dinner and in fact missed the first formal meeting with the biochemistry group, held the following morning. Two of the reviewers had travel plans requiring them to leave earlier than called for by the official schedule. This caused some confusion and created some unnecessary tension.

The reviewers were particularly irritated that Rev. James BurtchaeII, C.S.C., could not meet with them (because of illness) and that Gordon was not on campus. They felt the administrators they did meet with could not make policy changes and therefore they were left with the impression that their recommendations would not be taken seriously. However their acrimony seemed to be somewhat ameliorated by the unexpected appearance of Gordon at a luncheon with staff members and graduate students held the second day.

## B. The Interviews

Starting with the first interview and continuing throughout, the reviewers exhibited an aggressive posture. The reason for this appears to stem from their view that no clear statement of goals by either the department or the administration was presented to them in prior written form. The situation was further compounded by their failure to speak with Father Burtchaeil and the initial absence of Gordon, suggesting to them that the administration's attitude toward the review was "patiently tolerant" or one of "benign neglect." In Chapman's view the interviews themselves both with administration officials and faculty never did answer the question of "why the review was initiated." Flygare states that during his interview sessions with faculty, but only after "some prodding" on his part, was he able to ascertain departmental goals. However, he also wrote that his interview with members of the administration did not result in a definition of administrative goals with reference to the Department of Chemistry.

## C. The Reviews

In our opinion there were several shortcomings in the written reviews submitted by the site visitors. Barker was the only reviewer to make any attempt to assess the overall quality of the graduate program, and even his comments were minimum. There was no reference to the formal course work that is required, with regard to quality, content or quantity. The process by which students are admitted to candidacy was also not evaluated.

One way of judging the quality of a graduate program is by trying to determine the professional success of its graduates. Barker makes a passing comment on this subject with specific reference to the biochemistry group, whereas Chapman and Flygare ignore it completely.

The most important criticism made by the reviewers deals with the small graduate student population. However their reports seem to concentrate on the current population and do not reflect their concern (expressed verbally, numerous times) with the more important question of the downward trend over a number of years in student numbers exhibited by all the chemistry divisions, with the exception of biochemistry. In response to faculty questions, they said that this downturn, although not unique at Notre Dame, was far more severe here than the national picture indicates. The written reviews leave this point out and the implication that the situation at Notre Dame is worse than at other similar institutions is not documented.

## D. The Departmental Response

According to the reviewers the two major problems facing the Chemistry Department are an adequate number of graduate students and lack of outside research support. The departmental response indicates agreement with this assessment and faces these issues squarely by proposing specific remedial actions. However, there were several issues in the reviewers reports which were not responded to.

The charge by the reviewers that there is internal "divisiveness" within the department was not addressed in the response. It seems to us that there may be good reasons for this omission. The very nature of a review process tends to exaggerate such impressions obtained by outsiders. Furthermore the question of how this alleged divisiveness affects the graduate program was nebulous in the reviewers reports. Moreover Chapman calls for more "creative tension" in the department--it is not at all clear to us (and apparently the department) when "creative tension" turns to divisiveness.

However, it also seems to us that the departmental response failed to come to grips with other comments made by the reviewers which do have a direct bearing on the graduate program. For brevity we will simply list them:

1. The reviewers concern that the superior material resources of the Radiation Laboratory tends to dominate certain aspects of the Chemistry Department, much to the detriment of the latter.
2. The lack of a dialogue between the department and the administration, specifically with regard to the cost of supporting graduate students with grant money and the possible use of "overhead" money for departmental functions.
3. The very negative impression created among the reviewers by the requirement that graduate students teach throughout their entire stay at Notre Dame.
4. Chapman's chagrin over the loss of Eliel including his perception of the reason for Eliel's departure and its possible effect on Notre Dame. In addition, the general problem of other recent important faculty losses (including Marino Martinez-Carrion, whose imminent departure was discussed during the review) was also not addressed.



## VII. SUMMARY AND FINAL COMMENTS

The written reviews convey a somewhat negative impression of the Department of Chemistry's graduate program, however we feel this impression is mitigated by the following considerations. All three reviewers come from large state institutions and it seems to us that their expectations and perspectives were highly influenced by this fact. What is good for UCLA, the University of Illinois and Michigan State University may not be good for Notre Dame. Of the three reviewers, only Barker seemed to somewhat understand this point. We suggest, if possible, that in future reviews at least one of the site visitors come from a smaller private institution of similar quality to ours.

We feel that the process tends to generate reports which emphasize the negative parts of a program, while glossing over the positive aspects. The reviewers feel, properly, that it is more useful to identify present and potential dangers for the department than to offer praise for accomplishments. For this reason we should like to reiterate that the site visitors were favorably impressed with the faculty and one specifically stated that he was "amazed by the productivity of the faculty in terms of research papers." Moreover, they all had good things to say about the current crop of chemistry graduate students.

The reviewers however did express some very grave concerns about the future prospects of graduate chemistry education at Notre Dame. The response of the Chemistry Department to this alert was one of concurrence and a stated resolve to correct some of the major deficiencies. A similar resolve by the administration to help in this endeavor would be the most positive proof that the major goal of this review process was accomplished.

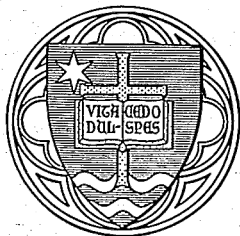
Morton S. Fuchs  
Chairman

Gerald L. Jones  
Divisional Representative

Dean Joseph C. Hogan  
College of Engineering  
Notre Dame, IN 46556

---

## notre dame report



An official publication of the University of Notre Dame, Department of Information Services. Individual copies are available in the Notre Dame Hammes Bookstore at 30 cents each. Mail subscriptions are \$6 per year. Back copies are available through the mail at 50 cents each.

Valerie Zurbilis, Editor  
Printing and Publications Office, 415 Administration Building  
Notre Dame, Indiana 46556  
219:283-1234

---