

'75-'76

notre dame report

February 13, 1976

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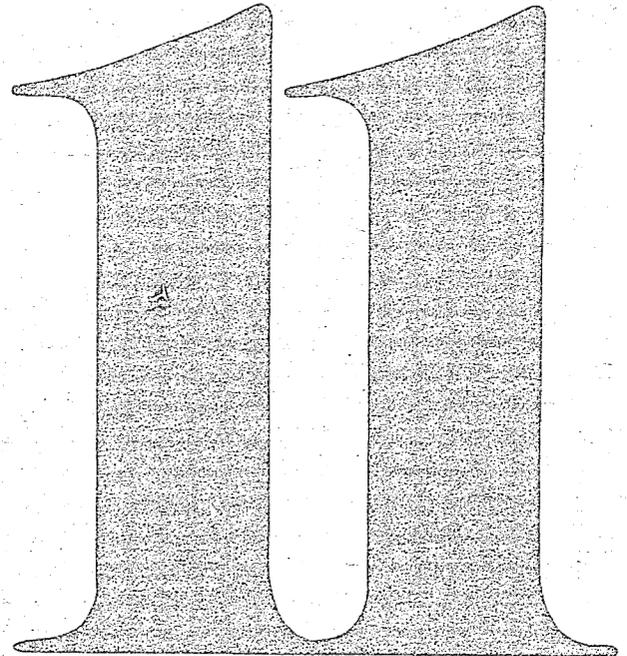
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the university

Radiation Lab Director

Robert H. Schuler, director of the Radiation Research Laboratories at Carnegie-Mellon University in Pittsburgh, has been named director of the Radiation Laboratory at Notre Dame, effective July 1.

Schuler will be joined by Carnegie-Mellon professor Richard W. Fessenden, an expert in electron spin resonance spectroscopy. Schuler succeeds John L. Magee, who has resigned to return to teaching and to his research in theoretical radiation chemistry at Notre Dame. Bernard Waldman, dean of the College of Science, is serving as acting director of the Radiation Laboratory, which is a facility of the U. S. Energy Research and Development Administration.

Engineering Campaign

The University has exceeded the \$1.5 million campaign goal for the expansion and renovation of its 42-year-old Cushing Hall of Engineering. Cash gifts and pledges totalling \$1,505,716 have been received from alumni and friends of the College of Engineering as well as from corporations and foundations. This brings the total fund for the project to more than \$3 million, including \$1.5 million raised for engineering facilities during the University's most recent formal development campaign, "Summa," which ended in 1972.

Joseph C. Hogan, dean of the College, said plans are being developed for an addition immediately south of Cushing Hall.

Sophomore Literary Festival

Robert Penn Warren, the only American to win Pulitzer prizes in both poetry and fiction, and Jorge Luis Borges, blind Argentinian short story writer and poet who has been mentioned as a candidate for the Nobel prize, will join other major writers in classroom discussions and public talks during The Sophomore Literary Festival Feb. 15-21 at Notre Dame.

Borges, a visiting speaker at Michigan State University this semester, will open the festival with readings of his works which include the volumes "Aleph and Other Stories," "Dreamtigers" and "Labyrinths" on Sunday, Feb. 15 in Washington Hall. The 8 p.m. sessions during the week are open to the public without charge. The schedule of talks for the festival is:

- Sunday, Feb. 15 -- Jorge Luis Borges. 8 p.m. Washington Hall.
- Monday, Feb. 16 -- John Gardner, novelist and author of "Sunlight Dialogues," "Wreckage of Agathon" and most recently, "Revenge of Moriarty," 8 p.m. Library Auditorium.
- Tuesday, Feb. 17 -- Robert Penn Warren, author of "All the King's Men," historical essays, short stories studies of race relations and a new volume of poetry, "Or Else." 8 p.m. Washington Hall.
- Wednesday, Feb. 18 -- Louis Simpson, Pulitzer prize winner, official poet for the U. S. Congress and author of "Three on the Tower," a new critical study of the works of T. S. Eliot, Ezra Pound and William Carlos Williams. 8 p.m. Library Auditorium.
- Thursday, Feb. 19 -- May Sarton, whose works include the novels "Journal of Solitude" and "Kinds of Love" and a new book of poems, "A Durable Fire." 8 p.m. Library Auditorium.
- Friday, Feb. 20 -- Robert Hass, winner of the Yale Younger Poet Series Award and author of "Field Guide." 8 p.m. Library Auditorium.
- Saturday, Feb. 21 -- Gallway Kinnell, poet and fictionist, known for his book of poetry "Avenue Bearing the Initial of Christ in the New World." His recent works include "Body Rags" and "Black Light." 8 p.m. Library Auditorium.

Film Festivals

The Notre Dame English Department and the Student Union are jointly sponsoring a Shakespeare film festival which will present ten films during the spring semester. The films were directed by such noted directors as Peter Brook, Laurence Olivier, Roman Polanski and they feature performances by Olivier, Diana Rigg, Paul Scofield and Richard Burton, among others. All films will be shown at 7 and 10 p.m. in the Engineering Auditorium and admission is free. The schedule of presentations for the rest of the semester is as follows:

Feb. 23 -- MacBeth
Mar. 1 -- A Midsummer Night's Dream
Mar. 25 -- Romeo and Juliet
Mar. 29 -- Othello
Apr. 1 -- Hamlet
Apr. 12 -- King Lear
Apr. 26 -- Henry V
May 2 -- Taming of the Shrew

Another film festival, Cinema '76, is being independently sponsored by the Student Union Cultural Arts Commission for the spring semester. Remaining performances in the series are:

Feb. 24-25 -- Jules & Jim
Mar. 23-24 -- The Devil is a Woman
Mar. 30-31 -- The Magnificent Ambersons
Apr. 4 -- City Lights
Apr. 5 -- Dead End
Apr. 6 -- West Side Story
Apr. 7 -- Mickey One
Apr. 9 -- Midnight Cowboy
Apr. 21-22 -- Amarcord

Most films will be shown at 8 and 10 p.m. in the Engineering Auditorium. West Side Story and Amarcord are scheduled to be shown at 7 and 10 p.m. Admission is \$1.

Tuition Assistance

Notre Dame has announced it will apply a gift of \$180,000 from the estate of Leo X. Smith of Indianapolis to its endowment for faculty children educational benefits. Smith, an attorney, died in November, 1973, and left a considerable portion of his estate to the University.

Earlier, the University had memorialized a \$25,000 bequest of Joseph W. Droll of Chicago in a similar fashion. The faculty children's educational benefits fund provides full tuition grants for children attending Notre Dame as well as scholarship aid for faculty children attending other colleges and universities.

Tax Assistance

More than 200 University of Notre Dame students with special knowledge of income tax regulations will resume their annual assistance program for families of low income at eight South Bend area locations on February 7. The free service, now in a fifth year, will be continued through the April 15 filing deadline.

Kenneth W. Milani and James L. Wittenbach, assistant professors of accountancy at Notre Dame, are again serving as faculty advisors for the business administration and law students participating in the program. Several certified public accountants will join them at the neighborhood centers to provide answers for unusual problems confronting students.

All persons with incomes of \$12,000 or less are eligible to receive assistance from the student volunteers. The eligibility figure last year was \$10,000.

The neighborhood centers and the hours of operation for the tax program include:

Northeast Neighborhood Center, 803 Notre Dame Ave., Mondays, 5-8 p.m.
Clay Neighborhood Center, 18254 Warrick St., Tuesdays, 5-8 p.m.
LaSalle Neighborhood Center, 2910 Western, Wednesdays, 5-8 p.m.
Southeast Center, 416 Wenger St., Mondays, 5-8 p.m.
Meadowbrook Center, 52792 Hastings Rd., Wednesdays, 11 a.m.-2 p.m.
Hansel Neighborhood Center, 1045 W. Washington, Tuesdays and Thursdays, 5-9 p.m. (Certified public accountants on duty 6-8 p.m. Thursday.)
LaRaza Center, 404 S. Walnut, Spanish speaking students on duty Saturdays, 10 a.m.-4 p.m.
Certified public accountants, 11 a.m.-4 p.m.
Senior Citizen Center, 604 E. Jefferson, Fridays, 10 a.m.-noon.

faculty notes

Honors

John G. Borkowski, associate professor of psychology, has been invited to serve as consulting editor for the International Review of Research in Mental Retardation.

Raymond M. Brach, associate professor of aerospace and mechanical engineering, is a recipient of a 1976 Ralph R. Teetor Award. The award is presented annually to several engineering faculty members by the Society of Automotive Engineers.

Msgr. John J. Egan, director of the Center for Pastoral and Social Ministry has been appointed to the board of directors of the Mexican American Cultural Center in San Antonio, Texas, and to the board of International Documentation on the Contemporary Church-North America, New York.

The composition, "Of a Cave Near a Pacific Beach," by David Clark Isele, assistant professor of music, from a poem by John Matthias, associate professor of English, was one of two winning songs in the American 1976 Solo Voice Literature Clinic Jan. 16 at the University of Nebraska at Omaha.

Nathan O. Hatch, assistant professor of history, has been awarded a grant-in-aid by the American Council of Learned Societies for summer research in Philadelphia on Religion and Politics in the Middle Colonies.

James Michael Lee, professor of graduate studies in education, has been named a consulting editor of Character Potential: A Record of Research, a journal supported by funds from the Lilly Foundation.

Peggy Roach, executive director of the Catholic Committee on Urban Ministry, has been appointed by the National Conference of Catholic Bishops' Committee for the Bicentennial to the Detroit Planning Group charged with preparing materials for the Bishops' Bicentennial Conference in Detroit, Oct. 20-30.

John A. Weber, associate professor of marketing, has been appointed to the Task Force on Technology Transfer of the U. S. Chamber of Commerce in Washington.

Activities

Harvey A. Bender, professor of biology, participated in a workshop on "Ethics and Human Value Implications of Science and Technology" Jan. 22-23 at Lake Placid, New York.

William Cerny, chairman of the Department of Music, was piano soloist, playing Rhapsody in Blue by George Gershwin, with the LaPorte Symphony in LaPorte, Indiana, Jan. 11.

Richard Cosier, instructor in management, presented a paper on "The effects of Cognitive Conflict and Goal Conflict on Task Performance and Interpersonal Learning" at the 1975 National American Institute for Decision Sciences Conference in Cincinnati, Nov. 7.

Thomas P. Cullinane, assistant professor of aerospace and mechanical engineering, spoke on "Effects of the Industrial Environment on Workers" before the South Bend chapter of the American Institute of Industrial Engineers on Jan. 21.

Robert A. Dreys, assistant professor of marketing, presented a paper on "A Comparison of the Cognitive Structure of Opinion Leaders vs. Non-Opinion Leaders" at the Annual Southern Marketing Association Conference in New Orleans, Nov. 15.

Msgr. John J. Egan, director of the Center for Pastoral and Social Ministry, addressed a conference on "The Prophetic Voice of the Church...The Role of the Priest" Feb. 2-6 in San Antonio, Texas. His topics were: "Social Dimensions of Pastoral Ministry" and "Excitement of Ministry in the Church Today." He also conducted workshops in "Ministry - Vocation of All: Let's Equip the Saints" and "The Pope's Call for Social Change" at the Bicentennial Congress of the Confraternity of Christian Doctrine in San Diego, Feb. 6-8.

Animesh Ghoshal, assistant professor of finance, chaired a session on "Economics Aspects of Transfer of Technology," Nov. 3, in a conference on "Technology Transfer in Furtherance of Distribution Justice" at Notre Dame.

Nathan O. Hatch, assistant professor of history, delivered a lecture Jan. 14 on Religion and the American Revolution at Calvin College in Grand Rapids, Michigan.

W. J. Heisler, assistant professor of management, addressed the World Book Encyclopedia Sales Training Conference held at the Center for Continuing Education, Jan. 16 on "Theories and Techniques for the Management of Human Resources: An Alphabetical Inventory."

David Clark Isele, assistant professor of music presented a program of twentieth century organ music entitled "Organ Odyssey" Feb. 1 in Sacred Heart Church. Members of the Notre Dame Chorale and Glee Club joined in the premiere of Isele's "Cognition Prefix," a major work for organ, soprano and alto soloists, piano, oboe, viola and cello incorporating lyrics from a section of the poem "Bucyrus" by associate professor of English John Matthias.

Edward A. Kline, associate professor of English, conducted a demonstration of computer-assisted instruction courses in English as a Second Language and Remedial English at the College of Arts and Letters Computer Aided Instruction (CAI) Workshop for representatives from Indiana colleges Jan. 17.

John J. Kozak, associate professor of chemistry, spoke on "Electrolyte Theory, the Dialectic Constant and the Passage of Ions through Membranes," on Jan. 29 at Washington University in St. Louis, Missouri.

William J. Kremer, assistant professor of art, was artist-in-residence and lecturer at Anderson College in Anderson, Indiana, Nov. 19-21, representing ceramics and ceramic sculpture. He was artist-in-residence at Morningside College, Sioux City, Iowa, Dec. 3-4, doing demonstrations and building a sculpture using wood as a media. On Jan. 20, Kremer gave a talk on Ceramic Sculpture to the Art Department of Purdue University in Lafayette, Indiana and he has been invited to conduct a workshop showing the use of molds and to be on a panel "away from the wheel," at the National Council for Education of Ceramic Art, at Louisiana State University, Baton Rouge, Louisiana, Feb. 28-Mar. 6.

John W. Lucey, associate professor of aerospace and mechanical engineering, was guest speaker at the Jan. 3 meeting of the American Association of University Women in Indianapolis. His topic was "Nuclear Energy for the 21st Century?"

John R. Malone, associate dean and director of the Graduate Division of the College of Business Administration, delivered a lecture on "The Economic Outlook for 1976" at a meeting of the Michigan Credit Association, in Mishawaka Jan. 20.

Ken Milani, assistant professor of accountancy, served on a panel on "Funds Flow Analysis" at the Nov. 18 Professional Development Meeting of the Michiana Chapter of the National Association of Accountants in South Bend. Milani and James L. Wittenbach, also an assistant professor of accountancy, are directing a course on "The Impact of Federal Income Taxes on Business Decisions" for owners and managers of small to medium-sized businesses, Jan. 27 to Feb. 17 at the Hayes-Healy Center. Wittenbach also gave a talk Dec. 16 in South Bend on "The Tax Reduction Act of 1975" to the Michiana Chapter of the National Association of Accountants.

Robert C. Nelson, associate professor of aerospace and mechanical engineering, presented a paper entitled "Body Vortex Formation on Missiles at High Angles of Attack," at the AIAA 14th Aerospace Sciences Meeting, Jan. 27-28 in Washington, D. C.

Timothy O'Meara, professor of mathematics, held an appointment as Distinguished Visitor in the Department of Mathematics at the University of California at Santa Barbara Jan. 7-21. During his stay O'Meara delivered two series of lectures on his research in algebra. The first consisted of seven lectures entitled "The Theory of Linear Groups;" the second consisted of two lectures on "The Arithmetic Theory of Quadratic Forms"

Irwin Press, associate professor of anthropology, presented a paper entitled "Folk Medicine in the Urban Milieu: A Functional Analysis" at the 74th annual meeting of the American Anthropological Association in San Francisco, Dec. 3.

William P. Sexton, associate professor of management, conducted a seminar Oct. 29 on "Intervention Strategies in a Bureaucratic Setting," at the Interagency Executive Seminar Center in Oak Ridge, Tennessee.

Michael E. Unsworth, staff librarian, delivered a lecture on "Automated Cataloguing Procedures in Academic Libraries" at the Graduate Library School of Indiana University in Bloomington, Indiana on Nov. 21.

John A. Weber, associate professor of marketing, presented a paper on "The External Affairs of Multinational Firms" at the Annual Conference of the Academy of International Business in Dallas, Dec. 28.

Deaths

Ivo H.C. Thomas, 64, director of the Collegiate Seminar program at Notre Dame, died Feb. 2 in Niles, Michigan.

office of advanced studies

Special Notice

Faculty Research Fund

The notice in Notre Dame Report No. 10, January 31, 1976 for the Faculty Research Fund indicates that a brief proposal (one to three pages of text) with a simple budget, describing the proposed work should be submitted by March to Dr. Robert E. Gordon

The due date should have been recorded as March 1, 1976.

Information Circular

National Endowment for the Arts Summer Intern Program

No. FY76-57

The National Endowment for the Arts today announced it will accept applications for Arts Work-Experience Internships for the summer session which begins June 7, 1976. Fifteen intern positions are made available at the Endowment for three-month periods to highly qualified young professionals training for an arts administration career. Applications for the summer openings must be made by an organization on behalf of an individual. A stipend of \$1,950 and travel money are provided for each intern. An applicant is selected on a competitive as well as geographic basis with emphasis placed on a combination of professional experience and academic background. Interns are assigned individually to a variety of Arts Endowment programs and offices in Washington, D.C., to give them a working view of the agency's operations and policies. In addition to their duties as professional staff members, interns attend 45 seminars and participate in field trips, meetings and other programs designed to familiarize them with arts activities and organizations throughout the country.

For further information about the program, interested individuals and organizations should write to: Miss Kathleen Bannon, Intern Program Officer, National Endowment for the Arts, Washington, D.C., 20506.

Current Publications And Other Scholarly Works

The list below includes works completed in Academic Year 1974-75 and not previously reported to the Notre Dame Report.

SCIENCE

Biology

- Craig, Jr. George B.
G.B. Craig, Jr. 1974. Discussion on vector control, of Y.C. Chan, K.L. Chan, and B.C. Ho, ed., Vector Control in Southeast Asia. Pages 73, 113-115, 117, 190-192 in, Proceedings of the 1st SEAMO Workshop, Singapore.
- G.B. Craig, Jr., M. Trpis, and E.J. Gerberg. 1974. Diel periodicity in the biting activity of Aedes woodi in East Africa. Mosquito News 34:443-446.
- G.B. Craig, Jr., W. Hausermann, and H.F. Nijhout. 1975. Permanent loss of male fecundity following sperm depletion in Aedes aegypti (L.). Journal of Medical Entomology 11(6):707-715.
- Crovello, Theodore J.
T.J. Crovello. 1974. A computerized flora of Indiana: Its scope, value and feasibility. Proceedings of the Indiana Academy of Science 83:407-410.
- T.J. Crovello. 1974. Proposed: An ASPT-SSZ register of EDP-IR projects. Association of Systematics Collections Newsletter 2:12-13.
- T.J. Crovello and C. Keller. 1974. Uses of computerized floristic data of Indiana for plant geography. Proceedings of the Indiana Academy of Science 83:399-406.

Fuchs, Morton S.

D.A. Schlaeger, M.S. Fuchs, and S.H. Kang. 1974. Ecdysone-mediated stimulation of dopa decarboxylase activity and its relationship to ovarian development in *Aedes aegypti*. Journal of Cell Biology 61:454-465.

Hausermann, Walter

W. Hausermann and H.F. Nijhout. 1975. Permanent loss of male fecundity following sperm depletion in *Aedes aegypti*. Journal of Medical Entomology 11(6):707-715.

Morgan, David W.

D.W. Morgan. 1975. More about the white whale. Maritimes 19(1):14-15.

Rai, Karamjit S.

K.S. Rai. 1973. Discussion on Biological Control. Pages 103-104, 147-148 in A. Hudson, ed., Proceedings of Biting Fly Control and Environmental Quality Symposium. University of Alberta, Edmonton and Defense Research Board of Canada, Ottawa.

G. Mathew and K.S. Rai. 1975. An electron microscope study of the secretion of egg membranes in *Aedes aegypti*, 17. In, Proceedings of the Midwest Regional Development Biology Conference, Normal, Illinois.

K.S. Rai and W.K. Harberg. 1975. Chapter 13, *Aedes*. Pages 311-345 in R. King, ed., Handbook of Genetics, Vol. III. Plenum, New York.

C.T. Curtis, N. Lorimer, S.G. Sagune, D.K. Uppal, S.J. Kazmi, E. Hallinan, K. Metz, and K.S. Rai. 1975. Simulation of alternate genetic control systems for *Aedes aegypti* in outdoor cages and with a computer. World Health Organization, VBC, 75 516:1-12.

Saz, Howard J.

R.S. Rew and H.J. Saz. 1974. Enzyme localization in the anaerobic mitochondria of *Ascaris lumbricoides*. Journal of Cell Biology 63:125-135.

Trpis, Milan

M. Trpis and E.J. Gerberg. 1974. Diel periodicity in the biting activity of *Aedes woodi* in East Africa. Mosquito News 34(4):443-446.

Tweedell, Kenyon S.

W.Y. Wong and K.S. Tweedell. 1975. Viral carcinogenesis in a pronephric cell line: An ultrastructure study. American Journal of Pathology 80:165-174.

Weinstein, Paul P.

H. Oya and P.P. Weinstein. 1975. Demonstration of cobamide coenzyme in *Ascaris suum*. Comparative Biochemistry and Physiology 50B:435-442.

R.I. Bolla, P.P. Weinstein, and C. Lou. 1974. Acid phosphatase in developing and aging *Nippostrongylus brasiliensis*. Comparative Biochemistry and Physiology 48B:131-145.

R.I. Bolla, P.P. Weinstein, and C. Lou. 1974. In vitro nutritional requirements of *Nippostrongylus brasiliensis*. - II. Effects of heme compounds, porphyrins bile pigments on the free-living stages. Comparative Biochemistry and Physiology 48B:147-157.

Chemistry

Basu, Subhash C.

J. Moskal and S.C. Basu. 1975. The measurement of glutamate decarboxylase activity in brain tissue by a simple micro-radiometric method. Analytical Biochemistry 65:449-457.

S.C. Basu, M. Basu, and J.-L. Chien. 1975. Enzymatic synthesis of blood group H-related glycosphingolipid by an α -fucosyltransferase from bovine spleen. Journal of Biological Chemistry 250(8):2956-2962.

M. Basu, J.R. Moskal, S.C. Basu, and D.A. Gardner. 1975. Biosynthesis in vitro of fucose-containing glycosphingolipids in monkey bone marrow and cultured vero cells. Federation Proceedings 34:645.

J.R. Moskal, J.-L. Chien, M. Basu, and S.C. Basu. 1975. Structure and biosynthesis in vitro of bovine erythrocyte pentaglycosylceramide. Federation Proceedings 34(3):645.

Bottei, Rudolph S.

J.B. Carberry, W.F. Echelberger, Jr. and R.S. Bottei. 1974. Microbial identification by pyrolysis-gas liquid chromatography. Proceedings of the 4th Annual Environmental Engineering and Science Conference 4:795-812.

Bretthauer, Roger K.

R.K. Bretthauer and S. Wu. 1975. Synthesis of the mannosyl-O-serine (threonine) linkage of glycoproteins from polyisoprenylphosphate mannose in yeast (*Hansenula holstii*). Archives of Biochemistry and Biophysics 167:151-160.

Castellino, Francis J.

F.J. Castellino, J.M. Sodetz, and G.E. Siefing, Jr. 1975. Affinity chromatography resolution of plasminogen isozymes. Pages 245-258 in, Isozymes. I. Molecular Structure.

J.M. Sodetz and F.J. Castellino. 1975. The mechanism of activation of rabbit plasminogen by urokinase. Journal of Biological Chemistry 250(8):3041-3049.

Christensen, Kenner A.

E.M. Schulman, K.A. Christensen, D.M. Grant, and C. Walling. 1974. Substituent effects on carbon-13 chemical shifts in 4-substituted biphenyls and benzenes. A substituent effect transmitted through eight covalent bonds. Journal of Organic Chemistry 39(18):2686-2690.

E.L. Eliel, W.F. Bailey, L.D. Kopp, R.L. Willer, D.M. Grant, R. Bertrand, K.A. Christensen, D.K. Dalling, M.W. Duch, E. Wenkert, F.M. Schell, and D.W. Cochran. 1975. Carbon-13 magnetic resonance. Upfield shifts caused by nitrogen, oxygen, and fluorine atoms located at the γ position and antiperiplana to the nucleus observed. Journal of the American Chemical Society 97(2):322-330.

K.A. Christensen, D.M. Grant, E.M. Schulman, and C. Walling. 1974. Optimal determination of relaxation times of Fourier transform nuclear magnetic resonance. Determination of spin-lattice relaxation times in chemically polarized species. Journal of Physical Chemistry 78(19):1971-1977.

- Creary, Xavier
 J.F. Bunnett and X. Creary. 1974. Arylation of arene thiolate ions by the $S_{RN}1$ mechanism. A convenient synthesis of diaryl sulfides. Journal of Organic Chemistry 39:3173.
- J.F. Bunnett and X. Creary. 1974. Nucleophilic replacement of two halogens in dihalobenzenes without the intermediary monosubstitution products. Journal of Organic Chemistry 39:3611.
- J.F. Bunnett and X. Creary. 1974. Photo-stimulated condensation of aryl iodides with potassium dialkylphosphites to form dialkylarylphosphonates. Journal of Organic Chemistry 39:3612.
- Fehlner, Thomas P.
 T.P. Fehlner. 1975. Gas phase reactions of borane. Pages 175-196 in, Boran Hydride Chemistry. Academic Press, Inc., New York.
- T.P. Fehlner. 1975. Photoelectron spectroscopy of closo-carboranes. Observation of exo-polyhedral molecular orbitals. Inorganic Chemistry 14(4):934-938.
- Freeman, Jeremiah P.
 J.P. Freeman. 1975. Review of William J. LeNoble, Highlights of Organic Chemistry. Journal of the American Chemical Society 97(7):1989.
- Funabashi, Koichi
 *K. Funabashi and J.L. Magee. 1975. On the specific rates for electron scavenging in nonpolar solvents. Journal of Chemical Physics 62(11):4428-4435.
- Hamill, William H.
 *T. Huang and W.H. Hamill. 1975. Characteristic energy losses of injected low energy electrons in ionic solids. Journal of Physics and Chemistry of Solids 36:661-666.
- *T. Huang and W.H. Hamill. 1975. Host excitation of luminescence from $KI:Tl^{+}$ and $RbI:Tl^{+}$ by slow electron impact. Journal of Chemical Physics 62(7):2849-2854.
- *T. Huang and W.H. Hamill. 1975. Luminescence of $NaOH$, $KBr:OH^{-}$, and $KBr:Tl^{+}$ under slow electron impact. Journal of Chemical Physics 62(7):2840-2848.
- Hong, Gilbert H.K.
 H.K. Hong. 1974. Review of E.C. Liu, ed. The Excited States. Journal of the American Chemical Society 96:5675.
- H.K. Hong and G.W. Robinson. 1974. Singlet and triplet excited states of pyrazine. Journal of Molecular Spectroscopy 52:1-20.
- Kozak, John J.
 J.J. Kozak. 1975. Spectator-ion effect on the passage of ions through membranes. Proceedings of the National Academy of Sciences of the United States of America 72:683-687.
- R.A. Goldstein and J.J. Kozak. 1974. Phase transitions in D-dimensional Ising lattices. Global Analysis and its Applications, International Atomic Energy Agency, Vienna II:245-261.
- *R. Davidson and J.J. Kozak. 1975. On the relaxation to quantum-statistical equilibrium of the Wigner-Weisskopf atom in a one-dimensional radiation field. VII. Emission in a finite system in the presence of an extra photon. Journal of Mathematical Physics 16(5):1013-1022.
- *M. Grätzel, J.J. Kozak, and J.K. Thomas. 1975. Electron reactions and electron transfer reactions catalyzed by micellar systems. Journal of Chemical Physics 62(5):1632-1640.
- W.W. Lincoln, J.J. Kozak, and K.D. Luks. 1975. Perturbation theory using the Yvon-Born-Green equation for the square-well fluid. Journal of Chemical Physics 62:1116-1121.
- W.W. Lincoln, J.J. Kozak, and K.D. Luks. 1975. Properties of solutions to the Yvon-Born-Green equation for the square-well fluid. Journal of Chemical Physics 62:2171-2182.
- Magee, John L.
 *M. Burton and J.L. Magee, eds. 1974. Advances in Radiation Chemistry. John Wiley & Sons, New York. ix + 410 pp.
- *K. Funabashi and J.L. Magee. 1975. On the specific rates for electron scavenging in nonpolar solvents. Journal of Chemical Physics 62(11):4428-4435.
- *A. Mozumder and J.L. Magee. 1975. The early events of radiation chemistry. International Journal for Radiation Physics and Chemistry 7:83-93.
- *A. Mozumder and J.L. Magee. 1975. Radiation chemistry in condensed phases. Pages 699-755 in, H. Eyring, W. Jost, and D. Henderson, eds., Reactions in Condensed Phases. Academic Press, New York.
- Martinez-Carrion, Marino
 M. Martinez-Carrion. 1975. ^{31}P nuclear-magnetic-resonance studies of pyridoxal and pyridoxamine phosphates. European Journal of Biochemistry 54:39-43.
- A. Relimpio, J.C. Slebe, and M. Martinez-Carrion. 1975. Fluorinated amino acids and phosphopyridoxyl fluoroamino acids as reversible active site directed inhibitors of aspartate transaminase. Biochemical and Biophysical Research Communications 63(3):625-634.
- M. Martinez-Carrion, S. Cheng, M.J. Stan-kewicz, and A. Relimpio. 1975. Spectroscopic probes of enzyme-coenzyme-substrate complexes of aspartate transaminases. Pages 567-581 in, C.L. Markert, ed. Isozymes: Physiological Function. Academic Press, Inc., New York.

Mozumder, Asokendu

- *M. Tachiya and A. Mozumder. 1974. Model of pre-existing traps. I. Journal of Chemical Physics 60:3037-3041.
- *M. Burton and A. Mozumder. 1974. Radiation effects on matter. Pages 399-416, in, W.E. Preece, ed., The Encyclopedia Britannica, 15th edition, Macropaedia.
- *M. Tachiya and A. Mozumder. 1975. On the two state model for electrons in nonpolar liquid hydrocarbons. Journal of Chemical Physics 62(6):2125-2129.
- *A. Mozumder and J.L. Magee. 1975. Radiation chemistry in condensed phases. Pages 699-755 in, H. Eyring, W. Jost, and D. Henderson, eds., Reactions in Condensed Phases. Academic Press, New York.
- *S.B. Srivastava, S. Bhadra, and A. Mozumder. 1974. Radiation-induced luminescence in benzene and cyclohexane. Indian Journal of Pure and Applied Physics 12:783-784.

Nowak, Thomas L.

- T.L. Nowak. 1974. Physical studies of the interactions of methylamines with muscle pyruvate kinase. Federation Proceedings 33:1310.
- H.M. Miziorko, T.L. Nowak, and A. Mildvan. 1974. Spinach leaf phosphoenolpyruvate carboxylase: Purification, properties and kinetic studies. Archives of Biochemistry and Biophysics 163:378-389.

Pasto, Daniel J.

- D.J. Pasto. 1975. Solution reactions of borane and substituted boranes. Pages 197-221 in, E. Meutterties, ed. Boron Hydride Chemistry. Academic Press, Inc., New York.
- D.J. Pasto and P.E. Timony. 1975. A detailed analysis of the complete hydrogen and carbon scrambling and fragmentation of boron-containing cationic species in the mass spectrometer. Organic Mass Spectrometry 10:222-240.

- D.J. Pasto and W.R. Scheidt. 1975. X-ray and dynamic nuclear magnetic resonance structural study of a 1,2-bis exocyclic diene. An example of a severely skewed diene. Journal of Organic Chemistry 40(10):1444-1447.

Ross, Alberta B.

- *M. Anbar, Farhataziz, and A.B. Ross. 1975. Selected specific rates of reactions of transients from water in aqueous solution. II. Hydrogen atom. NSRDS-NBS 51. 56 pp.

Scheidt, Robert

- R. Scheidt. 1975. Porphyrim. Pages 330-332 in, McGraw-Hill Yearbook of Science and Technology. McGraw-Hill, Inc., New York.
- P.L. Piciulo and W.R. Scheidt. 1975. Synthesis of nitrosyl manganese porphyrins: Use of the novel reagent N_2O_2 amine adducts. Inorganic and Nuclear Chemistry Letters 11(5):309-311.

- D.J. Pasto and W.R. Scheidt. 1975. X-ray and dynamic nuclear magnetic resonance structural study of a 1,2-bis exocyclic diene. An example of a severely skewed diene. Journal of Organic Chemistry 40(10):1444-1447.

Tachiya, Masanori

- *M. Tachiya. 1975. Application of a generating function to reaction kinetics in micelles. Kinetics of quenching of luminescent probes in micelles. Chemical Physics Letters 33(2):289-292.

Thomas, J. Kerry

- *L. Patterson, M. Grätzel, and J.K. Thomas. 1974. Trapping of hydrated electrons by cetyl pyridinium chloride micelles. Chemical Physics Letters 29:393-396.

- *L.K. Patterson and M. Grätzel (J.K. Thomas). 1975. Behavior of hydrated electrons in micellar solution. Studies with cetyltrimethylammonium bromide - cetylpyridinium chloride mixed micelles. Journal of Physical Chemistry 79(10) 956-960.

- *M. Grätzel, J.J. Kozak, and J.K. Thomas. 1975. Electron reactions and electron transfer reactions catalyzed by micellar systems. Journal of Chemical Physics 62(5):1632-1640.

- *M. Chen, M. Grätzel, and J.K. Thomas. 1975. Kinetic studies in bile acid micelles. Journal of The American Chemical Society 97(8):2052-2057.

- *S. Cheng, M. Grätzel, J.K. Thomas, and C.F. Kulpa. 1974. Dynamics of pyrene fluorescence in micelles and membrane vesicles. Pages 193-211 in, Proceedings of the 5th L.H. Gray Memorial Conference, Sept. 10-14, University of Sussex, England.

Winicur, Daniel H.

- *D.H. Winicur and J.L. Fraites. 1974. Electronic-energy exchange cross sections for $Ar^*(^3P)$ and $N_2(X^1\Sigma_g^+)$. Journal of Chemical Physics 61:1548-1553.

Earth Sciences

Brehob, Kenneth R.

- N.R. Nunnally, K.R. Brehob, and J.D. Gunter. 1974. Public policy and private enterprise in the development of flood plains: A laboratory exercise in physical geography. Journal of Geography 73(7):12-25.

Gutschick, Raymond C.

- R.C. Gutschick. 1974. Book review of Animal Colonies: Development and function through time, R.S. Boardman et al., 1973, 603 pp. Bulletin of the American Association of Petroleum 58(1):2372-2373.

Rigert, CSC, James A.

- M. Friedman, J. Logan, and J.A. Rigert. 1974. Glass-indurated quartz gouge in sliding-friction experiments on sandstone. Geological Society of America Bulletin 85:937-942.

Winkler, Erhard M.

- E.M. Winkler. 1975. Stone in Man's Environments, Properties, Durability. 2nd Revised Edition, June, 1975. Springer-Verlag. 250 pp.

Mathematics

- Hahn, Alexander J.
A.J. Hahn. 1975. On the isomorphisms of the projective orthogonal groups and their congruence subgroups. Journal für die reine und angewandte Mathematik 273:1-22.
- Huckleberry, Alan T.
A.T. Huckleberry. 1975. Über Funktionenkörper auf komplexen Mannigfaltigkeiten. Schriftenreihe des Mathematischen Instituts der Universität Münster 2(9):1-43.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. Counting on the Number Line. Quick Statement Inc. Printing, South Bend, Indiana. 1-78.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. You Can Use Signed Numbers. Quick Statement Inc. Printing, South Bend, Indiana. 79-167.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. Maps and Multiplication. Quick Statement Inc. Printing, South Bend, Indiana. 168-247.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. Reading for Information. Quick Statement Inc. Printing, South Bend, Indiana. 248-331.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. Sizing Up Fractions. Quick Statement Inc. Printing, South Bend, Indiana. 1-82.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. More on Sizing Up Fractions. Quick Statement Inc. Printing, South Bend, Indiana. 83-154.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1974. Taking Surveys and Making Budgets. Quick Statement Inc. Printing, South Bend, Indiana. 155-223.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Get it Together with Graphs and Numbers. Quick Statement Inc. Printing, South Bend, Indiana. 332-413.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Getting to Know Big Numbers. Quick Statement Inc. Printing, South Bend, Indiana. 414-509.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Measurements and Fast Numbers. Quick Statement Inc. Printing, South Bend, Indiana. 510-594.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Finding Areas. Quick Statement Inc. Printing, South Bend, Indiana. 595-655.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. More About Fractions. Quick Statement Inc. Printing, South Bend, Indiana. 224-286.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Sizing Up Fractions. Quick Statement Inc. Printing, South Bend, Indiana. 287-357.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Subtraction and Comparison of Fractions. Quick Statement Inc. Printing, South Bend, Indiana. 358-426.
- A.T. Huckleberry, J. Cornelius, and J. Watts. 1975. Use What You Know to Save Yourself Dough. Quick Statement Inc. Printing, South Bend, Indiana. 427-512.
- Nagano, Tadashi
T. Nagano and K. Yagi. 1974. The affine structures on the real two-torus (I). Osakaka Journal of Mathematics 11:181-210.
- T. Nagano and B. Smyth. 1975. Sur les surfaces minimales hyperelliptiques dans un tore. Comptes rendus des seances de l'Academie des Sciences 280:1527-1529.
- O'Meara, O. Timothy
O.T. O'Meara. 1973. Introduction to Quadratic Forms. Springer-Verlag, Berlin-Heidelberg - New York. xi + 342 pp.
- O.T. O'Meara and A.J. Hahn. 1973. The isomorphisms of certain subgroups of the isometry groups of reflexive spaces. Journal of Algebra 27(2):205-242.
- O.T. O'Meara and M.H. Dull. 1974. Automorphisms of the two-dimensional linear groups over integral domains. American Journal of Mathematics 96(1):1-40.
- Phan, Kok-Wee
K.W. Phan. 1974. On characterizing finite Chevalley groups of type E_7 and their twisted analogues. Journal of Algebra 32:141-151.
- Stoll, Wilhelm F.
W.F. Stoll. 1974. An average Bezout estimate. Fonctions analytiques de plusieurs variables et analyse complexe. Colloque International du C.N.R.S. 208:242-255.
- W.F. Stoll. 1974. Holomorphic functions of finite order in several complex variables. American Mathematical Society. 21:x + 83 pp.
- A. Andreotti and W.F. Stoll. 1974. Meromorphic functions on complex spaces. Lecture Notes in Mathematics. Fonctions de plusieurs variables complexes. Seminaire Francois Norguet, October 1970 - December 1973. Springer-Verlag, Berlin-Heidelberg-New York. 409:279-309.
- Vuckovic, Vladeta
V. Vuckovic. 1975. Almost recursivity and partial degrees. Zeitschrift für Math Logik und Grundlagen der Math 20:419-426.

Microbiology

- Asano, Tomoaki
J.L. McDonel and T. Asano. 1975. Analysis and unidirectional fluxes of sodium during diarrhea induced by Clostridium perfringens enterotoxin in the rat terminal ileum. Infection and Immunity 11:526-529.

- Burleson, Gary R.
G.R. Burleson, T.M. Murray, and M. Pollard. 1975. Inactivation of viruses and bacteria by ozone, with and without sonication. Applied Microbiology 29:340-344.
- Erickson, Robert J.
R.J. Erickson. 1975. The binding of polynucleotides to the DNA polymerase of avian myeloblastosis virus. Archives of Biochemistry and Biophysics 167:238-246.
- Kulpa, Charles F.
S. Cheng, M. Grätzel, J.K. Thomas, and C.F. Kulpa. 1974. Dynamics of pyrene fluorescence in micelles and membrane vesicles. Pages 193-211 in, 5th L.H. Gray Memorial Conference. J.W. Arrowsmith, Bristol, England.
- Madsen, David C.
D.C. Madsen and B.S. Wostmann. 1975. Conversion of hyodeoxycholate to W-muricholate by the germfree rats: implications of this hepatic potential for control of cholesterol pools. Vth International Symposium on Gnotobiology, Stockholm, June 9-12.
- D.C. Madsen, M. Beaver, and B. Wostmann. 1975. Effect of dietary disaccharides on cholesterol-bile acid metabolism of the adult germfree rat. Vth International Symposium on Gnotobiology, Stockholm, June 9-12.
- B. Wostmann, M. Beaver, and D.C. Madsen. 1975. Effect of diet sterilization on cholesterol values of germfree rats. Vth International Symposium on Gnotobiology, Stockholm, June 9-12.
- Pleasant, Julian R.
*J.R. Pleasants. 1974. Gnotobiotics. Pages 117-174 in, E.C. Melby, Jr. and N.H. Altman, eds. CRC Handbook of Laboratory Animal Science. CRC Press, Cleveland, Ohio.
- *J.R. Pleasants. 1975. Faculty focus. Notre Dame Science Quarterly 13:4-5.
- *J.R. Pleasants. 1975. Meeting a fundamental need to eat. Notre Dame Scholastic 116:17-19, 26.
- Pollard, Morris
*M. Pollard. 1975. Prostate adenocarcinomas in Wistar rats. Rush-Presbyterian St. Luke's Medical Bulletin 14:17-22.
- *M. Pollard, ed. 1975. Antiviral Mechanisms. Perspectives in Virology. Academic Press, New York.
- *M. Pollard and P.H. Luckert. 1975. Transplantable metastasizing prostate adenocarcinomas in rats. Journal of the National Cancer Institute 54(3):643-649.
- Wagner, Morris
*R.A. Celesk, T. Asano, and M. Wagner. 1975. Cecal size and redox potential in gnotobiotic CFW mice associated with a thermophilic (70°C, 10%) microflora. Proceedings of the Annual Meeting of the American Society of Microbiologists 75(B83):75.
- Wostmann, Bernard S.
B.S. Wostmann. 1975. Nutrition and metabolism of the germfree mammal. World Review of Nutrition and Dietetics 22:40-92.
- D.L. Sewell and B.S. Wostmann. 1975. Thyroid function and related hepatic enzymes in the germfree rat. Metabolism 24(6):695-701.
- D.C. Madsen, L. Chang, M. Beaver, and B.S. Wostmann. 1975. Metabolism of hyodeoxycholate and w-muricholate in germfree and conventional rats. Federation Proceedings 34:891.
- D.L. Sewell, B.S. Wostmann, C. Gairola, and M. Aleem. 1975. Oxidative energy metabolism in germfree and conventional rat liver mitochondria. American Journal of Physiology 228:526-529.

*Under the Lobund Laboratory

Physics

- Goss, John D.
P.L. Jolivet, J.D. Goss, G.L. Marolt, A.A. Rollefson, and C.P. Browne. 1975. Accurate Q-value measurements and masses in the iron region. In, Proceedings of AMCO-5, June 2-6, Paris, France.
- W.K. Collins, D.S. Longo, J.F. Mateja, P.R. Chagnon, E.D. Berners, G.F. Neal, C.P. Browne, P.L. Jolivet, A.A. Rollefson, and J.D. Goss. 1975. Levels of ^{38}K : The $^{40}\text{Ca}(d,\alpha)$, $^{40}\text{Ca}(d,\alpha\gamma)$ and $^{36}\text{Ar}(^3\text{He},p\alpha)$ reactions. Physical Review C 11:1925-1936.
- Jolivet, Peter L.
P.L. Jolivet, J.D. Goss, A.A. Rollefson, and C.P. Browne. 1974. Excitation energy of the second excited state of ^{12}C . Physical Review C 10:2629-2630.
- J.D. Goss, P.L. Jolivet, A.A. Rollefson, and C.P. Browne. 1974. Removal of an apparent discrepancy of excitation energies of ^{55}Co . Physical Review C 10:2641-2642.
- J.D. Goss, C.P. Browne, A.A. Rollefson, and P.L. Jolivet. 1975. Determination of the $^{12}\text{C}+p$ resonance energy at 14.2 MeV. Physical Review C 11:710-714.
- P.L. Jolivet, J.D. Goss, G.L. Marolt, A.A. Rollefson, and C.P. Browne. 1974. Charged particle Q values for reactions on C, Cr, Fe, Co, and Ni. Physical Review C 10:2449-2459.

- P.L. Jolivet, J.D. Goss, G.L. Marolt, A.A. Rollefson, and C.P. Browne. 1975. Accurate Q value measurements and masses in the iron region. In, Proceedings of AMCO-5, June 2-6, Paris France.
- W.R. Collins, D.S. Longo, J.F. Mateja, P.R. Chagnon, E.D. Berners, G.F. Neal, C.P. Browne, P.L. Jolivet, A.A. Rollefson, and J.D. Goss. 1975. Levels of ^{38}K : The $^{40}\text{Ca}(d,\alpha)$, $^{40}\text{Ca}(d,\alpha\gamma)$ and $^{36}\text{Ar}(^3\text{He},p,\alpha)$ reactions. Physical Review C 11:1925-1936.
- Kenney, V. Paul
 N.N. Biswas, E.D. Fokitis, J.M. Bishop, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. Inclusive π^0 production in π^-p and π^+p interactions at 18.5 GeV/c. Physical Review D 10:3579-3587.
- S. Lichtman, N.N. Biswas, N.M. Cason, V.P. Kenney, J.T. McGahan, W.D. Shephard, and P.H. Smith. 1974. The reactions $\pi^\pm p \rightarrow p\pi^\pm \pi^\mp$ at 18.5 GeV/c. Nuclear Physics B81: 31-44.
- J.P. Prukop, O.R. Sander, J.A. Poirier, C.A. Rey, A.J. Lennox, B.C. Chen, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. $\pi^+\pi^+ \rightarrow \pi^+\pi^+$ scattering below 0.7 GeV/c from $\pi^+p \rightarrow \pi^+\pi^+n$ at 5 GeV/c. Physical Review D 10:2055-2069.
- Marshalek, Eugene R.
 E.R. Marshalek. 1974. Boson expansions and the cranking model. In, Proceedings of the Conference on Problems of Vibrational Nuclei. September 24-27, Zagreb, Yugoslavia. North Holland Publishing Co.
- E.R. Marshalek. 1975. Boson representation for the quantized rotator. Physical Review C11:1426-1431.
- Mihelich, John W.
 A. Visvanathan, E.G. Funk, and J.W. Mihelich. 1974. Measurements of some K-internal conversion coefficients near threshold. Zeitschrift fur Physik 271:339-343.
- D.C. Sousa, L.L. Riedinger, E.G. Funk, and J.W. Mihelich. 1975. Decay of the three isomers of ^{154}Tb . Nuclear Physics A238: 365-408.
- E.G. Funk, D.R. Zolnowski, M.C. Madden, R.A. Belt, and J.W. Mihelich. 1974. Decay of ^{173}Hf and measurement of the half-life of the 128.3-keV State in ^{173}Lu . Physical Review C10:2015-2033.
- Poirier, John A.
 C.A. Rey, A.J. Lennox, J.A. Poirier, and K.P. Pretzel. 1974. New parameters for Δ^{++} resonances from 2170 to 3490 MeV in π^+p backward elastic scattering. Physical Review Letters 33:250.
- A.J. Lennox, J.A. Poirier, C.A. Rey, O.R. Sander, W.F. Baker, D.P. Eartly, K.P. Pretzel, S.M. Pruss, A.A. Wehman, and P. Koehler. 1975. π^+p backward elastic scattering from 2 to 6 GeV/c. Physical Review D 11(7):1777-1781.
- Rey, Charles A.
 C.A. Rey, A.J. Lennox, J.A. Poirier, and K.P. Pretzel. 1974. New parameters for Δ^{++} resonances from 2170 to 3490 MeV in π^+p backward elastic scattering. Physical Review Letters 33:250.
- A.J. Lennox, W.F. Baker, D.P. Eartly, P. Koehler, J.A. Poirier, K.P. Pretzel, S.M. Pruss, C.A. Rey, O.R. Sander, and A.A. Wehman. 1975. π^+p backward elastic scattering from 2 to 6 GeV/c. Physical Review D 11:1777-1781.
- J.P. Prukop, O.R. Sander, J.A. Poirier, C.A. Rey, A.J. Lennox, B.C. Chen, N.N. Biswas, N.M. Cason, V.P. Kenney, W.D. Shephard, R.D. Klem, and I. Spirn. 1974. $\pi^+\pi^+ \rightarrow \pi^+\pi^+$ scattering below 0.7 GeV from $\pi^+p \rightarrow \pi^+\pi^+n$ at 5 GeV/c. Physical Review D 10:2055-2069.
- Shephard, William D.
 W. Morris et al., Michigan State-Fermilab-Iowa State-Maryland-Notre Dame (W.D. Shephard, J.M. Bishop, N.N. Biswas, N.M. Cason, E.D. Fokitis, and V.P. Kenney) Collaboration. 1975. Study of the energy and charged multiplicity dependence of inclusive π^- production in π^-p interactions up to Fermilab energies. Physics Letters 56B:395-399.
- N.N. Biswas, E.D. Fokitis, J.M. Bishop, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. Inclusive π^0 production in π^-p and π^+p interactions at 18.5 GeV/c. Physical Review D 10:3579-3587.
- S. Lichtman, N.N. Biswas, N.M. Cason, V.P. Kenney, J.T. McGahan, W.D. Shephard, and P.H. Smith. 1974. The reactions $\pi^\pm p \rightarrow p\pi^\pm \pi^\mp$ at 18.5 GeV/c. Nuclear Physics B81:31-44.
- J.P. Prukop, O.R. Sander, J.A. Poirier, C.A. Rey, A.J. Lennox, B.C. Chen, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. $\pi^+\pi^+ \rightarrow \pi^+\pi^+$ scattering below 0.7 GeV/c from $\pi^+p \rightarrow \pi^+\pi^+n$ at 5 GeV/c. Physical Review D 10:2055-2069.
- Bishop, James M.
 N.N. Biswas, E.D. Fokitis, J.M. Bishop, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. Inclusive π^0 production in π^-p and π^+p interactions at 18.5 GeV/c. Physical Review D 10:3579-3587.

- H. Weller, R. Blue, J. Ramirez, S.M. Bernstein, H. Hiddleston, R.M. Prior, S.E. Darden, and M. Divadeenam. 1974. 2p-1h structure of ^{15}N from $^{14}\text{C}(p,p)^{14}\text{C}$ cross section and polarization measurements. Physical Review C 10:575-584.
- Funk, Emerson G.
A.G. Schmidt, J.W. Mihelich, and E.G. Funk. 1974. Multipole mixtures of gamma-ray transitions depopulating the 1318-keV(2^-) and 1518-keV(6^+ or 7^-) states in ^{174}Yb . Physical Review C 9:2346-2357.
- Goss, John D.
S.L. Blatt, G.L. Marolt, and J.D. Goss. 1974. Widths of low-lying states of ^{13}N and the question of reaction dependence. Physical Review C 10:1319-1330.
P.L. Jolivet, J.D. Goss, A.A. Rollefson, and C.P. Browne. 1974. Excitation state of ^{12}C . Physical Review C 10:2629-2630.
J.D. Goss, P.L. Jolivet, A.A. Rollefson, and C.P. Browne. 1974. Removal of an apparent discrepancy of excitation energies at ^{55}Co . Physical Review C 10:2641-2642.
N.A. Detorie, J.D. Goss, A.A. Rollefson, and C.P. Browne. 1974. States in ^{29}p via the $^{32}\text{S}(p,\alpha)^{29}\text{p}$ reaction. Physical Review C 10:991-996.
J.D. Goss, C.P. Browne, A.A. Rollefson, and P.L. Jolivet. 1975. Determination of the $^{12}\text{C}+p$ resonance energy at 14.2 MeV. Physical Review C 11:710-714.
P.L. Jolivet, J.D. Goss, G.L. Marolt, A.A. Rollefson, and C.P. Browne. 1974. Charged particle Q values for reactions on C, Cr, Fe, Co, and Ni. Physical Review C 10:2449-2459.
- Biswas, Nripendra N.
J.P. Prukop, O.R. Sander, J.A. Poirier, C.A. Rey, A.J. Lennox, B.C. Chen, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. $\pi^+\pi^+\pi^+\pi^+$ scattering below 0.7 GeV/c from $\pi^+p \rightarrow \pi^+\pi^+n$ at 5 GeV/c. Physical Review D 10:2055-2069.
- Bose, Samir K.
S.K. Bose. 1975. Generalization of Okubo's formula to four dimensional unitary groups. Physical Review D 15:1320-1324.
S.K. Bose. 1975. Generalization of Okubo's formula to four dimensional unitary groups. Physical Review D 11:2272-2277.
S.K. Bose. 1975. Studies in the Kerr Newman metric. Journal of Mathematical Physics 16:772-775.
- Browne, Cornelius P.
H.R. Hiddleston and C.P. Browne. 1974. Nuclear Data Sheets 13:133-190.
N.A. Detorie, J.D. Goss, A.A. Rollefson, and C.P. Browne. 1974. States in ^{29}p via the $^{32}\text{S}(p,\alpha)^{29}\text{p}$ reaction. Physical Review C 10:991-996.
P.L. Jolivet, J.D. Goss, A.A. Rollefson, and C.P. Browne. 1974. Excitation energy of the second excited state of ^{12}C . Physical Review C 10:2629-2630.
- J.P. Goss, P.L. Jolivet, A.A. Rollefson, and C.P. Browne. 1974. Removal of an apparent discrepancy of excitation energies of ^{55}Co . Physical Review C 10:2641-2642.
J.D. Goss, C.P. Browne, A.A. Rollefson, and P.L. Jolivet. 1975. Determination of the $^{12}\text{C}+p$ resonance energy at 14.2 MeV. Physical Review C 11:710-714.
P.L. Jolivet, J.D. Goss, G.L. Marolt, A.A. Rollefson, and C.P. Browne. 1974. Charged particle Q values for reactions on C, Cr, Fe, Co, and Ni. Physical Review C 10:2449-2459.
W.K. Collins, D.S. Longo, J.F. Mateja, P.R. Chagnon, E.D. Berners, G.F. Neal, C.P. Browne, P.L. Jolivet, A.A. Rollefson, and J.D. Goss. 1975. Levels of ^{38}K : The $^{40}\text{Ca}(d,\alpha)$, $^{40}\text{Ca}(d,\alpha\gamma)$ and $^{36}\text{Ar}(^3\text{He},p\alpha)$ reactions. Physical Review C 11:1925-1936.
- Cason, Neal M.
N.N. Biswas, E.D. Fokitis, J.M. Bishop, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. Inclusive π^0 production in π^-p and π^+p interactions at 18.5 GeV/c. Physical Review D 10:3579-3587.
S. Lichtman, N.N. Biswas, N.M. Cason, V.P. Kenney, J.T. McGahan, W.D. Shephard, and P.H. Smith. 1974. The reactions $\pi^\pm p \rightarrow \pi^\pm \pi^+ \pi^-$ at 18.5 GeV/c. Nuclear Physics B 81:31-44.
J.P. Prukop, O.R. Sander, J.A. Poirier, C.A. Rey, A.J. Lennox, B.C. Chen, N.N. Biswas, N.M. Cason, V.P. Kenney, and W.D. Shephard. 1974. $\pi^+\pi^+\pi^+\pi^+$ scattering below 0.7 GeV/c from $\pi^+p \rightarrow \pi^+\pi^+n$ at 5 GeV/c. Physical Review D 10:2055-2069.
- Chagnon, Paul R.
G.F. Neal and P.R. Chagnon. 1975. Gamma-ray studies at the 2876- and 2879-keV resonances in $^{27}\text{Al}+p$. Physical Review C 11:1461-1463.
- Darden, Sperry E.
H.R. Hiddleston, J.A. Aymar, and S.E. Darden. 1975. Proton polarization in $^{16}\text{O}(p,p\alpha)^{16}\text{O}$ and states in ^{17}F (II). Nuclear Physics A 242:323-344.

Closing Dates for Selected Sponsored Programs

Proposals must be submitted to the Office of Research and Sponsored Programs ten days prior to the deadline dates listed below.

Agency	Programs	Application Closing Dates		
Argonne National Laboratory	Faculty Research Participation at AEC Laboratories	March	31,	1976
Department of Justice	Law Enforcement Education Program	March	31,	1976
Health Resources Administration	Associated Health Professions Special Improvement Grants	March	22,	1976
International Research and Exchanges Board	Ad Hoc Grants to Promote New Exchanges	March	31,	1976
International Research and Exchanges Board	Special USSR Travel Grants in the Contemporary Social Sciences	March	31,	1976
Law Enforcement Assistance Administration	Law Enforcement Education Program	March	31,	1976

documentation

Revised Academic Calendar

The academic calendar for Fall 1976 has been revised by the Academic Council as follows:

Fall Semester 1976

Aug. 28-30	Sat thru Mon	Orientation and Counseling for new students.
Aug. 30	Monday	Registration for all students.
Aug. 31	Tuesday	Classes begin at 8 a.m.
Sept. 5	Sunday	Formal opening of the school year with Concelebrated Mass. (Subject to change.)
Sept. 9	Thursday	Latest date for all class changes.
Sept. 11	Saturday*	Special makeup class day. All <u>Friday</u> classes meet.
Oct. 14	Thursday	Midsemester Report of Deficient Students.
Oct. 16-24	Sat thru Sun	Midsemester Vacation
Nov. 11-18	Th thru Th	Advance Registration for Spring Semester 1977.
Nov. 25-28	Th thru Sun	Thanksgiving Holiday begins at 12:30 p.m. (noon), Wednesday, Nov. 24.
Nov. 29	Monday	Classes resume at 8 a.m.
Dec. 13-14	Mon-Tues	Last Class Days
Dec. 15-21	Wed thru Tues	Final Examinations. (No Sunday exams.)

Class Meetings

MWF	42	TT	28
MW	28	TWT	42
MF	27	TTF	42
MTuW	43	TuF	29
MTT	42	TWF	43
MWTh	41		
MTh	27		
MTuF	43		
MThF	41		

Number of Class Days

	Mon	Tues	Wed	Thurs	Fri	Sat	Total
Aug.	0	1	0	0	0	0	1
Sept.	4	4	5	5	4	1	23
Oct.	3	3	3	3	4	0	16
Nov.	5	5	4	3	3	0	20
Dec.	2	2	2	2	2	0	10
Total	14	15	14	13	13	1	70

* Sat., Sept. 11: All Friday classes will meet on this date.

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