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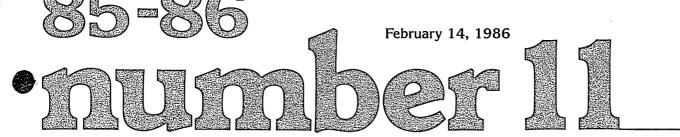
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the university

international student enrollment up

Enrollment of international students at Notre Dame this year totals 436, a substantial increase over last year's 375. They come from 64 countries and the majority are seeking a graduate degree. A total of 301 graduate students are enrolled this year, as well as 135 undergraduates. Students from China account for half of this increase, with their numbers jumping from 23 last year to 55 this year. Countries with large numbers in previous years, Taiwan and Mexico, are now taking second place to China and Malaysia.

The recent announcement that Notre Dame would use a six-million dollar gift from Mrs. Joan Kroc to begin an International Institute for Peace Studies is expected to open the door for additional numbers from foreign countries. Rev. Theodore M. Hesburgh, C.S.C., University president, said he could forsee an exchange of students from Russia, China and other world powers where serious concern exists for nuclear disarmament. Eastern Europe is presently represented by students from Hungary, Poland and Yugoslavia.

1986 photo directory

Studio portraits are being prepared in the office of Bruce Harlan, University photographer, for an updated edition of the Faculty and Professional Administrators' Photo Directory, which is published as a special issue of <u>Notre Dame Report</u>. The directory will be distributed in late spring.

For the convenience of faculty and administrators who were unable to have portraits taken during the last week in January, a second session has been scheduled for February 19, 20 and 21 from 1:30 to 4:30 p.m. The photo studio is located in Room C-48 of the Athletic and Convocation Center, just a few feet to the right inside Gate One. No advance reservations are necessary, and the process takes just a few minutes.

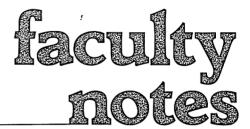
Each faculty member and administrator is urged to have a current portrait taken. The only exception applies to persons who have had a head-andshoulders portrait-type photograph taken by the University photographer within the past year. Those persons should send a note to that effect to Mr. Harlan, including name and rank/title.

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honors

Joan Aldous, William R. Kenan, Jr. professor of sociology, is serving on a committee formed to select the recipient of the American Sociological Association's award for "Career of Distinguished Scholarship."

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Joseph P. Bauer, associate dean of the Law School and professor of law, has been named chair-elect of the Section of Antitrust and Economic Regulation of the Association of American Law Schools at the Association's annual meeting in New Orleans, La., Jan. 7.

<u>Kwan S. Kim</u>, associate professor of economics and a faculty fellow in the Kellogg Institute, was elected to serve on the advisory board of the North American Economic and Finance Association for the academic year 1985/86.

<u>Teresa Godwin Phelps</u>, assistant professor of law, has been appointed to the review panel for the Indiana Committee for the Humanities Summer Fellowship.

<u>Robert P. Schmuhl</u>, assistant professor of American Studies, served as a judge in the national competition for the TIME Magazine College Achievement Awards, sponsored by TIME and the Council for Advancement and Support of Education, Jan. 24.

<u>Dennis J. Stark</u>, director of aquatics and assistant professor of physical education, has been elected a vice president of the board of directors of the Council for the Retarded of St. Joseph County. John H. Yoder, professor of theology, was elected vice president and president-elect of the Society for Christian Ethics at the society's annual meeting in Chicago Jan. 17-19.

activities

<u>Karl Ameriks</u>, professor of philosophy, commented on "Freedom and Intelligible Character in Kant" at the Eastern Division Meeting of the American Philosophical Association in Washington, D.C., Dec. 27-30.

<u>Rev. Dr. Paul F. Bradshaw</u>, associate professor of theology, led a day conference on "Preparing for Lent" for the United Religious Community, South Bend, Jan. 24.

<u>Alan B. Cain</u>, assistant professor of aerospace and mechanical engineering, presented two papers, "Linear and Nonlinear Regimes of 'Universal' Character in a Free Shear Layer" (with M.W. Thompson) and "Linear and Nonlinear Examination of Wall Influence on Free Shear Layer Instability" (with M.W. Thompson and F. Pellegrini), at the 38th annual Division of Fluid Mechanics meeting of the American Physical Society, held at the University of Arizona in Tucson Nov. 25.

<u>Xavier Creary</u>, associate professor of chemistry, presented a lecture titled "Substituent Effects on the Methylenecyclopropane Rearrangement. A Probe for Free Radical Effects" at the NATO Advanced Workshop on Substituent Effects in Radical Chemistry at Louvain-la-Neuve, Belgium, Jan. 21. James T. Cushing, professor of physics, chaired a session on "Macroscopic Quantum Effects: Theory and Experiment" at the International Conference on New Techniques and Ideas in Quantum Measurement Theory in New York City Jan. 21-24.

<u>Anne Carson Daly</u>, assistant professor of English, delivered an invited lecture titled "The American Heroine in Europe in American Novels of the Nineteenth and Twentieth Centuries" to members of the Faculte des Lettres at the Institut Catholique in Paris, France, Jan. 8.

Thomas W. Ebbesen, assistant professional specialist in the Radiation Laboratory, presented a paper, "Dynamics of Photochemical Systems," at the Fifth Science and Technology Forum, Hakone, Japan, Nov. 20-22.

Three works by <u>Moira Marti Geoffrion</u>, associate professor of art, including one drawing and two sculptures, are on display at Pleiades Gallery, New York City, from Jan. 28 to Feb. 16. Title of the show is "New Members Exhibition."

<u>Stephen E. Gersh</u>, professor of medieval studies, has received a National Endowment for the Humanities fellowship for 1986-87.

Teresa Ghilarducci, assistant professor of economics, participated in a seminar on "The Economic Status of Blacks in the United States: 1968-1984" at the Martin Luther King Jr. Celebration, South Bend, Jan. 20.

Denis Goulet, O'Neill professor of education for justice in the department of economics and in the Kellogg Institute, participated in a seminar on "Great People of Peace," part of the Martin Luther King, Jr. National Holiday Celebration, Century Center, South Bend, Jan. 20.

James W. Kamman, assistant professor of aerospace and mechanical engineering, presented an invited seminar titled "Constrained Multibody System Dynamics and Applications" at Michigan State University, East Lansing, Jan. 23.

<u>Rev. Charles Kannengiesser, S.J.</u>, Huisking professor of theology, presented "Current Research on Athanasius, <u>Contra Arianos</u>" at the Swiss Patristic Society Colloquy, Fribourg, Jan. 10.

Jeffrey C. Kantor, assistant professor of chemical engineering, chaired a session on "Model Uncertainty in Process Control" at the Third International Conference on Process Control held at Asilomar, Calif., Jan 13-18. Dr. Kantor was a member of the advisory committee for the conference. He also presented a seminar titled "Global Linearization of Several Chemical and Biochemical Systems" in the Department of Chemical Engineering at the California Institute of Technology, Pasadena, Calif., Jan. 23.

<u>Kwan S. Kim</u>, associate professor of economics and faculty fellow of the Kellogg Institute, presented a paper titled "Industrialization in Mexico: Issues and Strategies" during the Allied Social Science Conference in New York City Dec. 28, and participated the following day in the Maeil Journal-sponsored panel discussion on prospects for US-Korea trade relations.

<u>Rev. John Allyn Melloh, S.M., associate profes-</u> sional specialist in theology and coordinator of the John S. Marten Program in Homiletics and Liturgics, gave a public lecture on "The Continuing Liturgical Agenda" as part of a series during Heritage Week at the University of Dayton, Ohio, Jan. 28.

<u>Robert C. Nelson</u>, associate professor of aerospace and mechanical engineering, presented an invited seminar titled "Experimental Investigation of Vortex Breakdown on Delta Wings" at the Aircraft Division of Northrop Corporation in Hawthorne, Calif., Jan. 13.

T. Terry Ng, assistant professor of aerospace and mechanical engineering, presented a paper titled "Development of a Shear Layer Under Forcing Multi-Frequency" at the 38th annual Division of Fluid Dynamics Meeting of the American Physical Society, held at the University of Arizona, Tucson, Nov. 25.

Rev. Edward D. O'Connor, C.S.C., associate professor of theology, gave a lecture, "The Meaning of Medjugorje," at St. Adalbert Parish Hall, South Bend, Jan. 19, and lectured on "Growth in Prayer" at Corpus Christi Parish Church, South Bend, Jan. 23.

Maria Rosa Olivera-Williams, assistant professor of modern and classical languages, presented a paper titled "Ideologia y respuesta literaria en la poesia guachesca" at the Forum on Gaucho Literature of the Modern Language Association (M.L.A.), Chicago, Dec. 28. She also presented a paper titled "Spain: New Territory for Latin American Exiles" at the Literature and Exile program of the Prose Fiction Division of the M.L.A. Dec. 29.

<u>Irwin Press</u>, professor of anthropology, delivered a paper titled "Patient versus Emergency Room Culture: Prescription for Dissatisfaction" at the annual meeting of the American Anthropological Association, Washington, D.C., Dec. 5. He also chaired a Medical Anthropology Roundtable on "Anthropology and Clinical Administration."

<u>Rev. Niels Krogh Rasmussen, O.P.</u>, associate professor of theology, delivered six lectures on "Les types de la Célébration Eucharistique dans l'histoire" at the Institut Supérieur de Liturgie, Institut Catholique de Paris, Jan. 9 and 10.

J. Keith Rigby, Jr., assistant professor of earth sciences, presented an invited lecture titled "Paleoenvironment of the Last of the Dinosaurs" for the department of Geological Sciences, University of Illinois at Chicago, Jan. 9. He also presented an invited lecture titled "The Last of the Dinosaurs -- the Asteroid Did Not Do It" for the department of geology at Purdue University at Indianapolis Jan. 20.

<u>Paul Roche</u>, visiting professor and poet-inresidence in the Program of Liberal Studies, will be the host of a new weekly radio program on poetry titled "Words, Words, Words" to be broadcast Tuesdays at 2 p.m. EST and repeated Fridays at the

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same time by WSND FM, the University's student operated radio station. The half-hour program, whose first broadcast will be heard Tuesday, Feb. 4, will open with a reading of a short poem and each will briefly treat a particular poet.

Michael K. Sain, Freimann professor of electrical engineering, gave the following seminars for the Bendix Energy Controls Division of Allied Signal Corp. in South Bend: "Feedback Control: A Transfer Function Perspective," Nov. 21; "Open Loop Equivalents for Feedback Controls," Dec. 5; and "Three Viewpoints on Feedback Controllers: Conceptual, Hardware, and Software," Jan. 9.

Roger A. Schmitz, McCloskey dean of engineering and professor of chemical engineering, gave an invited lecture, "Thermal Images of Reactions on Catalytic Surfaces," for the Neal R. Amundson 70th Birthday Lectures at the University of Houston, Tex., Jan. 10, and for the Department of Applied Physical Chemistry of the Politecnico di Milano, Milan, Italy, Jan. 17.

James P. Sterba, professor of philosophy, presented a paper titled "AMINTAPHIL and the U.S. Constitution" at a meeting of the Conference on Philosophical Societies held conjointly with the Eastern Division American Philosophical Association meeting in Washington, D.C. Dec. 27-30. He also chaired a session on Racism and Rationality at the Eastern Division A.P.A. meeting.

<u>Eugene C. Ulrich</u>, associate professor of theology, participated in the work of revising the Revised Standard Version of the Bible, at Princeton University Jan. 6-10. <u>J. Robert Wegs</u>, associate professor of history, organized a session on "Industrialization and the Working Class: The Viennese Example" at the 100th annual meeting of the American Historical Association in New York City Dec. 27-30. He also delivered a paper at that session titled "Was it So Bad? Urbanization and the Working Class Family in Vienna, 1890-1930."

Rev. Oliver F. Williams, C.S.C., assistant professor of management, gave a presentation, "The Ethics of U.S. Investments in South Africa," at a meeting of the Society of Christian Ethics, Chicago, Ill., Jan. 17. He also was an invited participant at a seminar on South Africa sponsored by the Carnegie Leadership Program on Ethics, Foreign Policy and Economic Development in New York City Jan. 27.

John H. Yoder, professor of theology, gave guest lectures for the Duke University Divinity School and for the North Carolina Council of Churches in Durham, N.C., Feb. 18-20.

deaths

<u>Stephen Kertesz</u>, 81, professor emeritus of government and international studies, Jan. 26.

George J. Wack, 91, professor emeritus of modern and classical languages, Dec. 18.

administrators' notes

honors

<u>Walton R. Collins</u>, editor of Notre Dame Magazine, has been appointed to the Indiana University Alumni Association Publications Advisory Board. Late last semester, he served on the faculty of a Writing Institute in New York City sponsored by the Council for Advancement and Support of Education (CASE).

activities

Martha M. Conley, coordinator of student programs for the National Consortium for Graduate Degrees for Minorities in Engineering, Inc., conducted a workshop on "Programming for Different Age Groups" as part of the Virginia Cooperative Extension Service annual in-service program at Virginia Polytechnic Institute and State University, Blacksburg, Va., Dec. 3.

Edwin B. Harris, associate director of financial aid, delivered a research paper titled "The Treatment of Outside Gift Aid in Institutional Packaging Decisions" at the Indiana Student Financial Aid Association (ISFAA) Conference held in Indianapolis Dec. 4-6. The paper discussed the results of a recent survey research project conducted by the ISFAA Research Committee, on which Dr. Harris serves as chairman.

documentation

summary annual report for tiaa group total disability benefits plan

This is a summary of the annual report of the University of Notre Dame's TIAA Group Total Disability Benefit Plan for faculty and administrative staff, employer #35-0868188, for September 1, 1984 through August 31, 1985. The annual report has been filed with the Internal Revenue Service as required under the Employee Retirement Security Act of 1974 (ERISA).

INSURANCE INFORMATION

The plan has a contract with the Teachers Insurance and Annuity Association (TIAA) to pay all claims incurred under the terms of the plan. The total premiums paid for the plan year ending August 31, 1985 were \$202,273.32.

YOUR RIGHTS TO ADDITIONAL INFORMATION

You have the right to receive a copy of the full annual report, or any part thereof, including insurance information, on request. Simply make your request to the office of Roger V. Mullins, Director of Personnel, University of Notre Dame, Notre Dame, IN 46556.

salaries, tenure and fringe benefits of full-time instructional faculty, 1985-86

The Office of the Dean of Administration has prepared and filed Higher Education General Information Survey (HEGIS XX), SALARIES, TENURE AND FRINGE BENEFITS OF FULL-TIME INSTRUCTIONAL FACULTY, 1985-86, with the U.S. Department of Education, Washington, D.C.

The 1985-86 A.A.U.P. average salary and average compensation figures by rank for the University of Notre Dame, together with the respective percents of annual increase, are

shown below with the comparable figures for the years 1979-80 through 1984-85. TABLE ONE

	UNIVERSITY OF NOTRE DAME AVERAGE SALARIES PER A.A.U.P. REPORTS 1979-80 THRU 1985-86						
	1985-86	1984-85	1983-84	1982-83	1981-82	1980-81	1979-80
Professor	\$51,954	\$47,996	\$44,230	\$40,719	\$36,204	\$32,662	\$30,058
% Increase	8.3	8.5	8.6	12.5	10.8	8.7	7.3
Assoc. Professor	38,416	36,444	34,023	31,305	27,991	24,977	23,331
% Increase	5.4	7.1	8.7	11.8	12.1	7.1	8.0
Asst. Professor	31,304	29,525	27,740	25,090	22,107	19,700	18,070
% Increase	6.0	6.4	10.6	13.5	12.2	9.0	5.9
Instructor	36,000	26,010	26,780	25,147	21,355	17,394	15,973
% Increase	38.4	(2.9)	6.5	17.8	22.8	8.9	6.9
All Ranks	\$41,503	\$38,780	\$35,848	\$32,763	\$29,360	\$26,060	\$23,921
% Increase	7.0	8.2	9.4	11.6	12.7	8.9	6.9

TABLE TWO

	UNIVERSITY OF NOTRE DAME AVERAGE COMPENSATION PER A.A.U.P. REPORTS 1979-80 thru 1985-86						
	1985-86	1984-85	1983-84	1982-83	1981-82	1980-81	1979-80
Professor	\$64,252	\$59,423	\$54,666	\$50,145	\$44,730	\$40,085	\$36,427
% Increase	8.1	8.7	9.0	12.1	11.6	10.0	9.4
Assoc. Professor	47,229	44,796	41,576	37,944	33,683	29,921	27,831
% Increase	5.4	7.7	9.6	12.7	12.6	7.5	10.2
Asst. Professor	37,415	35,234	33,031	29,352	26,027	22,981	20,970
% Increase	6.2	6.7	12.5	12.8	13.3	9.6	6.2
Instructor	42,504	29,455	31,336	28,264	24,045	19,364	17,941
% Increase	44.3	(6.0)	10.9	17.5	24.2	7.9	5.7
All Ranks	\$50,829	\$47,485	\$43,740	\$39,621	\$35,562	\$31,344	\$28,529
% Increase	7.0	8.6	10.4	11.4	13.5	9.9	7.6

The Average Salary for Continuing Teaching and Research Members on Faculty in 1985-86 and 1984-85 follows:

TABLE THREE

AVERAGE SALARY FOR CONTINUING TEACHING AND RESEARCH MEMBERS ON FACULTY IN 1985-86 AND 1984-85

	Number	1985-86	1984-85	Increase	<u>% Increase</u>
Professor	191	\$52,860	\$48,159	\$ 4,701	9.8
Associate Professor	153	38,857	36,075	2,782	7.7
Assistant Professor	142	31,881	29,077	2,804	9.6
Instructor	-	-	-	-	-
All Ranks	486	\$42,322	\$38,779	\$3,543	9.1



current publications and other scholarly works

Current publications should be mailed to the Division of Research and Sponsored Programs, Room 314, Administration Building.

COLLEGE OF ARTS AND LETTERS

American Studies

Schlereth, Thomas J.
T.J. Schlereth. 1985. Material Culture,
A Research Guide. University Press of
Kansas, Lawrence, Kansas. 224 pp.
Schmuhl, Robert P.
R.P. Schmuhl. 1985. They're Everywhere.
Notre Dame Magazine 14(3):72.
R.P. Schmuhl. 1985. Larger Questions About
the Small Screen. The Review of Politics
47(3):448-451.

Economics

- Betson, David M. D.M. Betson. 1985. Future Directions for Microanalytic Simulation Modeling of the Labor Market. Pages 275-294 in, G. Orcutt, J. Merz and H. Quinke, eds., Microanalytic Simulation Models to Support Social and Financial Policy. North-Holland, New York.
- D.M. Betson. 1985. A Microsimulation Model for the German Federal Training Assistance Act - Principles, Problems and Experiences: A Comment. Pages 184-186 in, G. Orcutt, J. Merz and H. Quinke, eds., Microanalytic Simulation Models to Support Social and Financial Policy. North-Holland, New York. Leahy, William H.
- W.H. Leahy, A. Dobbelaere and J. Reardon. 1985. The Effect of Past Practice on the Arbitration of Labor Disputes. <u>The</u> Arbitration Journal 40(4):27-42.

Worland, Stephen T.

- S.T. Worland. 1985. Review of A. Fanfani's, Catholicism, Protestantism, and Capitalism in America. America 153(18):428-429.
 S.T. Worland. 1985. Industrial Policy
 and "Participation": The Perspective of
- the Bishops' Pastoral Letter. Forum for Social Economics 8:1-21.

English

- Matthias, John E. J.E. Matthias. 1985. Ley Lines. Sagetrieb 4(2 & 3):9-14. J.E. Matthias. 1985. Six Poems.
 - Gradina 7/8:90-94.
 - J.E. Matthias. 1985. Three Poems.
 - Letopis Matice Srpske 436(4):360-365. J.E. Matthias. 1985. Not for Sale in USA. #3. Another Chicago Magazine 14:115-131.

History

Biddick, Kathleen A. K.A. Biddick. 1985. Medieval English Peasants and Market Involvement. Journal of Economic History 45:823-831.

Boulton, D'Arcy J.

D.J. Boulton. 1985. The Middle French Statutes of the Monarchical Order of the Ship (Naples 1381): A Critical Edition, with Introduction and Notes. Mediaeval Studies 47:168-272.

Philosophy

Morris, Thomas V.

- T.V. Morris. 1985. The Necessity of God's Goodness. The New Scholasticism 59(4): 418-448.
- T.V. Morris. 1985. Agnosticism. Analysis 45(4):219-224.

Program of Liberal Studies

Crowe, Michael J.

M.J. Crowe. 1985. A History of Vector Analysis: The Evolution of the Idea of a Vectorial System. Dover Publications, Inc., New York, New York. xv + 270 pp.

Sociology

- Hallinan, Maureen T. M.T. Hallinan and A.B. Sorensen. 1985. Student Characteristics and Assignment to Ability Groups: Two Conceptual Formulations. <u>The Sociological Quarter-</u>
 - ly 27(1):1-13. M.T. Hallinan and A.B. Sorensen. 1985. Ability Grouping and Student Friendships. American Educational Research Journal 22(4):485-499.
- Sullivan, CSC, Patrick J. P.J. Sullivan, CSC. 1985. U.S. Catholic Institutions and Labor Unions: 1960 -1980. University Press of America, Lanhan, Maryland. 545 pp.

Theology

- Coll, CSJ, Regina A.
- R.A. Coll, CSJ. 1985. Education for Peace: A Feminist Issue. Pages 66-80 in, F. Giltner, ed., Women's Issues in Religious Education. Religious Education Press, Birmingham, Alabama. Melloh, SM, John A. J.A. Melloh, SM. 1985. Proclaiming the

Word of God. Paulist Press Video Cassette Tape. Paulist Press, Ramsey, New Jersey. 45 minutes.

COLLEGE OF SCIENCE

Biological Sciences

- Fuchs, Morton S.
- M.S. Fuchs, D. Borovsky, L.R. Whisenton and B.R. Thomas. 1986. Biosynthesis and Distribution of Ecdysone and 20-OH-Ecdysone in Aedes aegypti. Archives of Insect Biochemistry and Physiology 3:19-30.

Chemistry

Eigenbrot, Jr., Charles W. See under Miller, Marvin J. 1985. Journal of the Chemical Society, Chemical Communications 1985:1265-1266. Johnson, James F. J.F. Johnson, K.L. Widerquist, J. Birdsell and A.E. Miller. 1985. Storyboarding For Interactive Videodisc Courseware.

- Educational Technology 25(12):29-35. Miller, Marvin J.
- G. Rájendra and M.J. Miller. 1985. Oxidative Cyclization of β,γ-Unsaturated O-Acyl Hydroxamates to B-Lactams. Tetrahedron Letters 26:5385-5388.
- S.R. Woulfe and M.J. Miller. 1985. Synthesis and Biological Activity of Substituted [[³(S)-(Acylamino)-2-oxo-1azetidinyl]oxy] acetic Acids. A New Class of Heteroatom-Activated β-Lactam Antibiotics. Journal of Medicinal

Chemistry 28(10):1447-1453. M.A. Krook, M.J. Miller and C.W. Eigenbrot, Jr. 1985. A Novel Rearrangement of 3-Phenylacetamido-1-hydroxyazetidin-2-one. Journal of the Chemical Society, Chemical Communications 1985:1265-1266.

Mozumder, Asokendu A. Mozumder. 1985. Early Production of Radicals from Charged Particle Tracks in Water. Radiation Research 104:S-33-S-39.

Pasto, Daniel, J.

- D.J. Pasto and N.Z. Huang. 1985. Electro-cyclization and Cyclooligomerization of 2,7-Dimethy1-2,3,5,6-octatetraene with Ni(O) and Ni(II) Complexes. Journal of Organic Chemistry 50(23):4465-4467. Schuler, Robert H.
- *See under RADIATION LABORATORY; Tripathi, G.N.R. 1985. Zeitschrift für Naturfor-schung 40a:1026.

Thomas, J. Kerry

- K. Chandrasekaran and J.K. Thomas. 1985. Photophysical and Photochemical Properties of Pyrene-Doped TiO $_2$ Particle Suspensions in Water. Journal of Colloid and Inter-
- face Science 106(2):532-537.
 S. Hashimoto and J.K. Thomas. 1985. Fluore-scence Study of Pyrene and Naphthalene in Cyclodextrin-Amphiphile Complex Systems. Journal of the American Chemical Society 107(16):4655-4662.
- T. Nakamura and J.K Thomas. 1985. Photo-chemistry of Materials Adsorbed on Clay Systems. Effect of the Nature of the Adsorption on the Kinetic Description of the Reactions. Langmuir 1(5):568-573. G. Beck and J.K. Thomas. 1985. Picosecond
- Studies of Excited-State Formation in Liquid Diethylaniline. Journal of Physical Chemistry 89(19):4062-4065.

*Under the Radiation Laboratory -

Mathematics

Dwyer, William G. W.G. Dwyer and E.M. Friedlander. 1985. Algebraic and Etale K-Theory. Transactions of the American Mathematical Society. American Mathematical Society 292(1):247-279.

Physics

Dow, John D.

- See under Newman, Kathie E. 1985. Solid State Communications 56:553-556.
- Livingston, A. Eugene A.J. Mazure, A.E. Livingston, E.J. Galvez and S.J. Hinterlong. 1985. Fine Structure of Perturbed Rydberg States in Beryllium-like S¹²⁺. <u>Physical Review A</u> 32:3775-3777.

Newman, Kathie E.

K.E. Newman, J.D. Dow, A. Kobayashi and R. Beserman. 1985. Explanation of the Anomalous Raman Spectra of $(GaSb)_{1-x}Ge_{2x}$. Solid State Communications 56:553-556.

COLLEGE OF ENGINEERING

Chemical Engineering

Varma, Arvind

B. Subramaniam and A. Varma. 1985. Reaction Kinetics on a Commercial Three-Way Catalyst: The CO-NO-O2-H2O System. I&EC Product Research & Development 24: 512-516.

Electrical Engineering

Sain, Michael K.

M.K. Sain and J.L. Peczkowski. 1985. Nonlinear Control by Coordinated Feedback Synthesis, with Gas Turbine Applications. Pages 1121-1128 in, Proceedings of the American Control Conference. Boston, Massachusetts.

- J.L. Peczkowski and M.K. Sain. 1985. Synthesis of System Responses: A Nonlinear Multivariable Control Design Approach. Pages 1322-1329 in, Proceedings of the American ControT Conference. Boston, Massachusetts.
- J.A. O'Sullivan and M.K. Sain. 1985. Non-linear Optimal Control with Tensors: Some Computational Issues. Pages 1600-1605 in, Proceedings of the American Control Conference. Boston, Massachusetts.
- S. Yurkovich, D. Bugajski and M.K. Sain. 1985. Polynomic Nonlinear Dynamical Systems: A Residual Sensitivity Method for Model Reduction. Pages 933-939 in, Proceedings of the American Control Con-
- ference. Boston, Massachusetts. S.A. Al-Baiyat and M.K. Sain. 1985. A History of Inverse Properties in System Models. Pages 495-499 in, Proceedings of the Sixteenth Annual Pittsburgh Conference on Modeling and Simulation Part 2: Control, Robotics and Automa-tion. Pittsburgh, Pennsylvania. L.H. Williams and M.K. Sain. 1985. Extend-
- ing Nonlinear Models with Tensor Parameters. Pages 489-493 in, Proceedings of the Sixteenth Annual Pittsburgh Conference on Modeling and Simulation, Part 2: Control Robotics and Automation. Pittsburgh, Pennsylvania.

Metallurgical Engineering and Materials Science

Miller, Albert E. See under CHEMISTRY; Johnson, James F 1985. Educational Technology 25(12):29-35.

UNIVERSITY LIBRARIES

Pec, Jean A. J.A. Pec. 1985. Catholic Newspapers Since 1825: Notre Dame Newspaper Collection is Outstanding. Focus on Indiana Libraries 39(12):8.

RADIATION LABORATORY

Ross, Alberta B. B.H.J. Bielski, D.E. Cabelli, R.L. Arudi and A.B. Ross. 1985. Reactivity of $HO_2/O_{\overline{2}}$ Radicals in Aqueous Solution. Journal of Physical and Chemical Reference Data 14:1041. Tripathi, G.N.R. L. Qin, G.N.R. Tripathi and R.H. Schuler. 1985. Radiation Chemical Studies of the

Oxidation of Aniline in Aqueous Solution. Zeitschrift für Naturforschung 40a:1026.

MEDIEVAL INSTITUTE

McInerny, Ralph M. R.M. McInerny. 1985. Why the Burden of Proof is on the Atheist. Truth 1:25-28.