

CURRICULUM VITAE

MICHAEL A. WARTELL
Chancellor Emeritus

Indiana University-Purdue University Fort Wayne
2101 East Coliseum Boulevard
Fort Wayne, Indiana 46805
(260) 481-0700

EDUCATION

B.S. 1967 University of New Mexico Chemistry
M.S. 1968 Yale University Physical Chemistry
Ph.D. 1971 Yale University Physical Chemistry

Dissertation: "Semiclassical Theory as Applied to Vibrationally Inelastic Scattering in Three Dimensions"
R.J. Cross, Jr. Research Advisor

POSITIONS: (description of positions and responsibilities begins on page 14)

2012-Present Chancellor Emeritus and Professor of Chemistry
Indiana University-Purdue University Fort Wayne

1994-2012 Chancellor and Professor of Chemistry,
Indiana University-Purdue University Fort Wayne

1993-94 Vice Chancellor for Academic Affairs and Professor of
Chemistry,
Indiana University-Purdue University Fort Wayne

1989-93 Department Manager, Sandia National Laboratories

1984-89 Provost and Vice President for Academic Affairs and
Professor of Chemistry, Humboldt State University

1979-84 Dean, College of Letters and Sciences and Professor of
Chemistry, James Madison University

1978-79 Dean, School of Natural Sciences and Mathematics and
Professor of Chemistry, Slippery Rock State College

1975-78 Department Chair, Associate Professor of Chemistry,
Metropolitan State College

1971-75 Assistant Professor of Chemistry, Department of
Chemistry, Metropolitan State College

FEDERAL BOARD SERVICE

National Research Council

Board on Army Science and Technology CB Defense Study 1999
Naval Studies Board CBW Study 2001-2002
Principal Investigator, National Academy of Science of
Chemical/Biological Protection and
Decontamination, 1997-1999

United States Army Education Advisory Committee, Chair, 2011-
present

United States Army Science Board, 1981-1987; 1997- 2002; 2003-
2011

Chemical Warfare Summer Study, 1982

Decontamination Ad Hoc Study Group, 1983

Smoke and Obscurants Ad Hoc Study Group, 1983

Leading/Manning the Army Summer Study, Vice Chair, 1984

Chemical Warfare Intelligence Ad Hoc Study Group, Chair,
1984-1987

Manpower and Logistics Summer Study, 1985

Key Operational Capabilities Summer Study, 1986

Biodefense Ad Hoc Study Group, 1987

Red Team, Chair, 1998-2011 (Summer Study, 1998-2011)

Directed Energy Weapons Study, Chair, 2004

Improving Army Intelligence Study, Chair, 2005

Defense Intelligence Agency Science and Technology Advisory
Board,

Member, 1987-2005; Chair, 1997-2005

Intelligence Support to Drug Interdiction Study Panel,
Chair, 1989-91

Technologies and Applications Study Panel, 1991-92

HUMINT Support of Scientific and Technical Intelligence
Production Study,

Chair, 1988-89

Committee on Advanced Technology for Arms Control Monitoring,
Vice Chair, 1989-91

MASINT Panel, 1991-93

Special Technology Panel, 1991-93

Policy Support Panel, 1993-95

Internal Communications Panel, 2004-05

Manpower Support Steering Group, 1999-2005

Defense Science Board, 1997-2005
Intelligence Needs for Homeland Defense Panel, 2001-02
Intelligence Ends vs. Means Panel, 2002-2003
Transforming Military Manpower Panel, 2002-2003

Department of Defense Technical Assessment and Review Activity
(CBW) - 2001, 2002
Board of Visitors, Defense Systems Management College, Ft.
Belvoir, VA,
1984 - 1988; Chair, 1985-1988

OTHER RELATED POSITIONS AND CONSULTANCIES

Consultant: Defense Intelligence Agency, United States Army, IRT
Corporation, Sandia National Laboratories, SRI International,
JAYCOR, HERO, Boeing Electronics, Battelle, National Science
Foundation

Consulting Reviewer (John Wiley, Harper and Row, Willard Grant,
Freeman, National Academy of Sciences and others).

Boards of Directors: Chamber of Commerce,

1994-Present
Corporate Council, 1994-1999, 2003-2010
Regional Chamber 2010-Present
Fort Wayne Philharmonic, 1993-Present
Leadership Fort Wayne, 1994-Present
Junior Achievement of Fort Wayne, 1995-Present
Boy Scouts of America, 1995-Present
Science Central Leadership Cabinet, 1995-Present
Fort Wayne Urban League, 1997-2003
Science Central Board of Directors, 2001-2008
United Way Campaign Cabinet, 2002-2008
FourthWave, 2003-2008
Fort Wayne/Allen County Economic Development
Alliance,
2003-Present

Fort Wayne Area Public Safety Foundation, 2005-
2010

Keynote speaker for organizations - Indiana School
Superintendents Association
National Reconnaissance

Office
Journal Gazette Newspapers

and numerous Rotary, Kiwanis, Lions,
and other service clubs, and K-12
institutions

Administrative Evaluation Task Force, American Association of
University Administrators, 1978-79

Standards and Review Committee, American Association of
University Administrators, 1983-1984

Expert Witness and Evidence Analyst, 1974-present

Corporate Chair - Northeast Indiana Heart Walk, 2002

PUBLICATIONS

- "Sudden Approximation as Applied to Vibrationally Inelastic Scattering," M.A. Wartell and R.J. Cross, Chem. Phys. Lett. 5, 477 (1970)
- "Interpretation of High Energy Cross Sections for Molecular Scattering in Three Dimensions," M.A. Wartell and R.J. Cross, JCP 54, 4519 (1971)
- "Semiclassical Theory of Vibrationally Inelastic Scattering in Three Dimensions," M.A. Wartell and R.J. Cross, JCP 55, 983 (1971)
- "A Fortran IV Program for Grading Quantitative Analysis Unknowns," J.A. Hurlbut and M.A. Wartell, J. Chem. Ed. 49, 508 (1972)
- "A New General Chemistry Laboratory Scheme: Observation, Deduction, Reportage," M.A. Wartell, J. Chem. Ed. 50, 361 (1973)
- "Sudden Approximation Applied to Vibrationally Inelastic Scattering: He-HD," M.A. Wartell, JCP 58, 4700 (1973)
- "A Mini-Computer Generated Freshman Kinetics Experiment," Jack D. Cummins and M.A. Wartell, J. Chem. Ed. 50, 544 (1973)
- "Issues in Higher Education in Colorado," M.A. Wartell ("Issues" pamphlet edited by Timothy Wirth, 1973)
- "The Rutherford Scattering Experiment: CAI in the Laboratory," John R. Garbarino and M.A. Wartell, J. Chem. Ed. 50, 792 (1973)
- "Social Effectiveness, A Nine Month Undergraduate Internship in Youth Service Work," T.K. Saville and M.A. Wartell, The Colorado Psychologist 8, 21 (1973)

- "Chemistry and the Educationally Disadvantaged Student," M.A. Wartell, J. Chem. Ed. 51, 116 (1974)
- "The Photoelectric Effect: CAI in the Laboratory," J.R. Garbarino and M.A. Wartell, J. Chem. Ed. 51, 484 (1974)
- "Collision Induced Dissociation in the He-H₂ Collision System," J.R. Garbarino, M.A. Wartell, and C.J. Malerich, JCP 64, 1253 (1974)
- "Morse Oscillator Wave Functions in High Energy Scattering Calculations," J.R. Garbarino and M.A. Wartell, JCP 61, 743 (1974)
- "A Computer Generated Titration Exercise," C.V. Bishop and M.A. Wartell, J. Chem. Ed. 51, 187 (1975)
- "Review of A Study Guide to Chemical Principles," Wilbert Hutton (Benjamin, 1974), M.A. Wartell, J. Chem. Ed. 52, A198 (1975)
- "Course Examinations and Survey Evaluations Using the HP9830A," M.A. Wartell, C. Bishop, and J.R. Garbarino. Keyboard 1, 12 (1975)
- "Review of Physical Chemistry, An Advanced Treatise." Vol. XIA, Douglas Henderson (Academic Press, 1975), M.A. Wartell, JACS 97, 7203 (1975)
- "Vibrational Relaxation in He-H₂ in the High Energy Regime," P. Novak and M.A. Wartell, JCP 63, 4089 (1975)
- "Introduction to Criminalistics," F.C. Sauls and M.A. Wartell, J. Chem. Ed. 53, 185 (1976)
- "Single Concept Interactive Minicomputer Programs for Use in General Chemistry," Harvey Faram and M.A. Wartell, J. Chem. Ed. 54, 150 (1977)
- "Review of Basic Chemistry," William Seese and Guido Daub, (Prentice-Hall, 1977), M.A. Wartell, J. Chem. Ed. 55, A291 (1978)
- "Inelastic Scattering at Moderate Collision Energies," David P. Olson and M.A. Wartell, JCP 68, 5294 (1978)
- "Modeling of Molecular Velocity Distributions," D. Hinds, D. Parrish, and M.A. Wartell, J. Chem. Ed. 55, 670 (1978)
- "Fundamental Skills for General Chemistry, Twelve Programs with Instructors Guide," J. Beck, P. Cauchon, E. Mottell, M.A. Wartell, Programs for Learning, Inc. (New Milford, Ct., 1979)
- "Review of Basic College Chemistry," Don Roach and Edmund Leddy, Jr., (McGraw Hill, 1979) M.A. Wartell, J. Chem. Ed. 57, A102 (1980)

- "Freshman Science and Math Dormitory Program--Effects on Retention," F.M. Hoffman and M.A. Wartell, J. of College Student Personnel, 21 472 (1980)
- "Taming the Savage Beasts that Threaten Academe," M.A. Wartell. The Chronicle of Higher Education XXIII, Number 9, 64 (1981)
- "Army Science Board 1982 Summer Study, Chemical Warfare and Biological Defense: Research, Development, Testing and Evaluation Program," coauthored, Defense Technical Information Center System ADC 030778 (1983)
- Army Science Board Study of the Smoke and Obscurance Program," coauthored, Defense Technical Information Center System ADB 084465L (1983)
- "Computer Simulated Speed Distributions in One, Two, and Three Dimensions," Susan Gier and M.A. Wartell, J. Chem. Ed. 61, 166 (1984)
- "Science and the Liberal Arts," M.A. Wartell, Liberal Education, 70 (1), 21 (1984)
- "Army Science Board Study of the Decontamination Program," coauthored, Defense Technical Information Center System ADB 082583L
- "Army Science Board 1984 Summer Study, Leading and Manning Army 21," coauthored, Defense Technical Information Center System ADA 150444 (1985)
- "Army Science Board 1985 Summer Study, Manning Implications of Logistic Support for Airland Battle," coauthored, Defense Technical Information Center System (A163385)
- "Army Science Board 1986 Summer Study, Key Operational Capabilities," coauthored, Defense Technical Information Center System (ADB Pending)
- "Army Science Board Study of Biodefense," coauthored, Defense Technical Information Center System (B117238)
- "HUMINT Support of Scientific and Technical Intelligence" coauthored, Defense Intelligence Agency Report (1990)
- "Intelligence Support to Drug Interdiction," coauthored, Defense Intelligence Agency Report (1991)
- "Intelligence Use of MASINT," coauthored, Defense Intelligence Agency Report (1995)
- "Online solution to the education crisis", Michael A. Wartell, Journal Gazette, The (Fort Wayne, IN), October 8, (2012)
- "A New Paradigm for Remediation: MOOC's in Secondary Schools," Michael A. Wartell, EDUCAUSE REVIEW online, November/December (2012)

BOOKS

- Engineering Education and A Lifetime of Learning, coauthored,
(ASEE, Washington, 1975)
- Introduction to Chemistry, Jack D. Cummins and M.A. Wartell,
(Wiley, New York, 1975)
- Study Guide for Introduction to Chemistry, Jack D. Cummins and
M.A. Wartell, (Wiley,
New York, 1975)
- Laboratory Manual for Introduction to Chemistry, Jack D. Cummins
and M.A. Wartell, (Wiley,
New York, 1975)
- Fundamentals of Chemistry, M.A. Wartell and Jack D. Cummins
(Willard Grant, Boston,
1980)
- Study Guide for Fundamentals of Chemistry, M.A. Wartell and Jack
D. Cummins (Willard Grant, Boston, 1980)
- Strategies to Protect the Health of Deployed U.S. Forces, M.A.
Wartell et. al. (National Academy Press, Washington, D.C.,
1999)
- Naval Forces= Defense Capabilities Against Chemical and
Biological Warfare Threats, M.A. Wartell et. al., (National
Academy Press, Washington, D.C., 2004)

BOOK CHAPTERS

“A CEO’s View of Athletics and Recreation.” M.A. Wartell, In G.S. McClellan, C. King, and D.L. Rockey, Jr. (Eds.), The Handbook of College Athletics and Recreation Administration. (Jossey-Bass, San Francisco)

CONGRESSIONAL TESTIMONY

- U.S. House of Representatives Committee on Science, Space, and
Technology
(March 16, 1990: Educational Outreach)
- U.S. Senate Committee on Labor and Human Resources
(May 19, 1990: Educational Outreach)
- New Mexico Legislative Education Study Committee
(June 15, 1990: Educational Outreach)

- U.S. Congress Joint Economic Committee
(September 5, 1990: Educational Outreach)
- U.S. House of Representatives Subcommittee on Elementary,
Secondary and Vocational Education (July 18,
1991: Educational Outreach)
- U.S. House of Representatives Committee on Education and the
Workforce, Subcommittee on Postsecondary Education,
Training and Life-Long Learning
(April 22, 1997)

PRESENTATIONS

"Morse Oscillator Wave Functions in High Energy Scattering Calculations," J.R. Garbarino and M.A. Wartell (Presented at the ACS Southwestern Regional Meeting, December, 1973, at El Paso, Texas)

"The Mini-Computer in the Freshman Chemistry Curriculum," C.V. Bishop, J.D. Cummins, and M.A. Wartell (Presented at the ACS Southwestern Regional Meeting, December, 1973, at El Paso, Texas)

"Collisional Dissociation in Vibrationally Inelastic Scattering," J.R. Garbarino and M.A. Wartell (Presented at ACS Rocky Mountain Regional Meeting, July, 1974, at Albuquerque, New Mexico)

"Programmed Study Material Based on Behavioral Objectives," S.G. Sunderwirth and M.A. Wartell (Presented at ACS Rocky Mountain Regional Meeting, July 1974, at Albuquerque, New Mexico)

"Various Approaches to Self-Paced Adaptive Learning," S.K. Hahs, S.G. Sunderwirth, and M.A. Wartell (Presented at the ACS Southwestern Regional Meeting, December, 1974, at Houston, Texas)

"Developing Curricula in the Forensic Sciences," (Presented at the American Academy of Forensic Sciences Meeting, February, 1976, in Washington, D.C.)

"Seminar and Internship in Criminalistics: Core Courses in the Criminalistics Major," M.A. Wartell and J.D. Cummins (Presented at the American Academy of Forensic Sciences Meeting, February, 1977)

"Qualitative and Quantitative Analysis of Drug Mixtures Using Phase Properties," M.A. Wartell and J.D. Cummins (Presented at the American Academy of Forensic Sciences Meeting, February, 1980, in New Orleans, Louisiana)

"Talking to the Lay Juror: Successfully Explaining Scientific Instruments, Procedures, and Concepts," R.H. Shapiro and M.A. Wartell (Presented at the American Academy of Forensic Sciences Meeting, February, 1981, in Los Angeles, California)

"Perspectives on Education: The Sandia Study," M. A. Wartell (Presented at the American Association of School Administrators, July, 1994, in San Diego, California)

"Establishing the K-16 Learning Community," T. Fowler-Finn, B. Steffy and M.A. Wartell (Presented at the American Association for Higher Education 6th National Conference on School/College Collaboration, October, 1995, in Washington, D.C.)

APublic Policy and Educational Research: The Sandia Report,@ M.A. Wartell (Presented at the Indiana Association of Public School Superintendents, November, 1996, in Indianapolis, Indiana)

AWARDS, GRANTS, AND ORGANIZATIONS

Phi Beta Kappa

Phi Kappa Phi

Kappa Mu Epsilon

Sigma Xi

American Chemical Society

Danforth Association

American Academy of Forensic Sciences, Fellow

American Association of University Administrators

American Physical Society

Petroleum Research Fund "Type B" Research Grant (1975-1981) (\$25K)

Petroleum Research Fund "Type B" Research Grant (1972-1974),
supplemental 1973 (\$30K)

Outstanding Faculty Award 1972-1973, Metropolitan State College

NASA-ASEE Summer Workshop in Engineering Education Design, Summer
1974

NSF-ISEP Grant-Criminalistics Program (1974-1976) (\$50K)

Patriotic Civilian Service Award, U.S. Army, 1987

Blue Ribbon Panel of Judges, Take Pride in America, Department of
Interior, 1991

NSF-Statewide Systemic Initiative Grant, Co-Principal Investigator, 1991-93 (\$10M)
The Indiana Conference AAUP Academic Freedom Award, 2001
Citizen of the Year Award, Fort Wayne Journal Gazette, 2003
Paul Harris Award, Fort Wayne Rotary, 2006
Sagamore of the Wabash, Governor of the State of Indiana, 2006
Commander's Award for Civilian Service, Department of the Army, 2011
Champion for Diversity Award, Indiana University-Purdue University Fort Wayne Big Event, 2012
Whitney M. Young, Boy Scouts of America, 2012

RELATED EXPERIENCE

METROPOLITAN STATE COLLEGE

EEO Grievance Board, 1972.
Task Force for the Academic Master Plan, Steering Committee, 1973
North Central Association Self-study Committee for Accreditation, 1974-78
Auraria Science Building Task Force, Designed and Implemented plans for Chemistry Department, 1975-78
Selection Committee, Dean of Center for Experimental Studies, 1975-76, Chair
Accreditation Task Force, ACS Accreditation for Chemistry Department, Chair, 1977-78, Accredited, March, 1978
Distinguished Faculty Awards, Coordinator, 1978

JAMES MADISON UNIVERSITY

Steering Committee, SACS Accreditation Task Force, 1980-82
Visiting Scholars Committee, Chair, 1979-84
Affirmative Action Committee, 1980-81
Commission on Undergraduate Studies, 1979-84
University Budget Oversight Committee, 1981-82
Liberal Studies Committee, Chair, 1983-84
Academic Program Evaluation Committee, 1983-84
University Council, 1979-84

HUMBOLDT STATE UNIVERSITY

Humboldt State University Foundation, Board of Directors 1984-89
Chair, Academic Resources Allocation Committee, 1984-89
Chair, Academic Strategic Planning Committee, 1984-89
Chair, Council of Academic Deans, 1984-1989
University Resource Planning and Budgeting Committee, 1985-86
Academic Senate, 1984-89

California State University Committee on Intellectual Property Rights, 1985-86
California State University Child Care Policy Advisory Committee, 1988-89

POSITIONS AND RESPONSIBILITIES

Chancellor, IPFW

Responsible for administration of a fourteen thousand student campus jointly shared by Purdue University and Indiana University which has a budget of \$200M and is directly funded by the Indiana State Legislature. IPFW is a comprehensive university offering more than 200 programs, certificate through masters level. The university serves a ten county region of northeastern Indiana.

Vice Chancellor for Academic Affairs, IPFW

Responsible for administration of seven academic schools, the graduate program, the library, media services, the Learning Resource Center, Continuing Education, and other academic programs. Responsibilities are similar to those described below in other academic positions.

Department Manager, Sandia National Laboratories

Responsible for development and management of educational outreach programs and development of special technologies programs. Responsible for evaluation and development of existing and new technologies and application of those technologies throughout the Laboratories. Education outreach budget was approximately twelve million dollars. The special technologies effort was approximately fifteen million dollars. Also responsible for Congressional interactions on intelligence issues as well as the NSF/SSI math and science education initiative.

Provost and Vice President for Academic Affairs, Humboldt State University

Responsible for the administration of seven academic colleges, the graduate program, institutional research, the library, media services, admissions and records, and the athletic program. Within those areas are over six hundred professional personnel (faculty and staff) expending a budget of over thirty million dollars. Additional functions include responsibility for hiring of staff, overall personnel administration, budget planning and management, general long range planning, marketing of academic programs, dealing with several trade unions and an organized faculty. Also responsible for developing and implementing new

academic programs, procuring private support, and publicizing academic services throughout the region and state.

Dean of the College of Letters and Sciences, James Madison University

Responsible for administration of eleven academic departments and the honors program. Within those areas were approximately two hundred faculty and staff expending a budget of about eight million dollars. Responsible for hiring of staff, long range academic planning, program development, budget planning and disbursement, development of new academic programs, marketing of academic programs and procuring external funds.

Dean of the School of Science, Slippery Rock State University

Responsible for administration of six academic departments, composed of approximately sixty faculty and staff with a budget of approximately five million dollars. Responsible for hiring of faculty and staff; program planning and development; budget planning, development, and disbursement; and procuring external funds.

Chair, Department of Chemistry, Metropolitan State College

Responsible for administration of academic department employing twelve faculty and staff and expending a five hundred thousand dollar budget. Responsible for program and budget development and administration, hiring of faculty and staff, procuring external funds, and teaching.