

CURRICULUM VITA

NAME: Edwards, Michael A

EDUCATION

Rowan University

Glassboro, NJ

B.A.-Biology

May 1983

Philadelphia College of Pharmacy and Science

Philadelphia, PA

M.S.- Medicinal Chemistry

May 1991

Dissertation: Biosynthesis of 3-(3-Isocyanocyclopen-2-Enylidene)
Propionic Acid, Possible Origin of the Isonitrile Carbon

North Dakota State University

Fargo N.D

M.S.-Chemistry

May 1997

Dissertation: Mechanism of Rearrangement of Organometallic
Ions in the gas Phase

North Dakota State University

Fargo N.D

Ph.D. Chemistry

May 1999

Dissertation: Laser Probes For The Studies of Gas Phase
Kinetics of Nitrogen Containing Radicals

POST-DOCTORAL

School of Public and Environmental Affairs (SPEA)

June 1999- May 2001

Indiana University

Bloomington, IN

Los Alamos National Laboratory

Los Alamos, NM

August 2002- June 2003

ACADEMIC APPOINTMENT

Clinical Associate Professor
SPEA and Department of Chemistry
Indiana University
Bloomington, Indiana

July 2011 – Present

Clinical Assistant Professor
SPEA and Department of Chemistry
Indiana University
Bloomington, Indiana

July 2003 – 2011

Clinical Assistant Professor
SPEA
Indiana University
Bloomington, Indiana

May 2001 – July 2002

Visiting Assistant Professor
SPEA
Indiana University
Bloomington, Indiana

May 2000- April 2001

PROFESSIONAL SOCIETIES

American Chemical Society
Membership - August 1998 – Present

**National Organization For The Professional Development
Of Black Chemist and Chemical Engineers (NOBCChE)**

Membership - April 2006 – Present

Graduate Engineering Fellowship for Minorities (GEM)
Voting Board Member representing IUB STEM disciplines

July 2008 - Present

TEACHING EXPERIENCE

E475 Techniques in Environmental Science
E537 Environmental Chemistry Laboratory

Spring 2001

E162 People and the Environment
E272 Introduction to Environmental Science

Fall 2001- Spring 2002

E162 People and the Environment
C103 General Chemistry

Fall 2003

E537 Environmental Chemistry Laboratory
C101 General Chemistry

Spring 2004

E272 Introduction to Environmental Science
C121 General Chemistry Laboratory **Fall 2004**

E272 Introduction to Environmental Science
C101 General Chemistry **Spring 2005 – Spring 2006**

COLL X-101 Introduction to General Chemistry **Summers 2006 - 2009**

E162 People and the Environment
C101 General Chemistry **Fall 2006**

E272 Introduction to Environmental Science
C101 General Chemistry **Spring 2007 – Spring 2009**

PUBLICATIONS

“ Kinetics of the $\text{CN} + \text{CH}_2\text{CO}$ and $\text{NCO} + \text{CH}_2\text{CO}$ Reactions”,
Chem. Phys. 1998, 234/1-3, 231.

“ Measurements of the Kinetics of the $\text{OH} + \alpha$ -Pinene Reaction and $\text{OH} + \beta$ -Pinene at
Low Pressure”, *Int J Chem. Kinet.* 2002, 34; 300-308

UNIVERSITY ADMINISTRATIVE SERVICE INDIANA UNIVERSITY BLOOMINGTON (IUB)

Chemistry Department

Director Chemistry Tutoring/Mentoring Program

Spring 2005 - Present

*Project CARE (Chemistry Taking Action to Research and Enhance Students
Achievement)*

- Identify students in need of extra tutoring to pass Elementary Chemistry by using an assessment evaluation tool called LASSI
 - (Learning and Study Skills Inventory)
- Recruit, hire and assist in the training of students to serve in the capacity of peer mentors/tutors

UNIVERSITY COMMITTEE SERVICE

NSF Alliance for Graduate Education and Professoriate (AGEP) **Fall 2004 – Present**

- Outreach program to recruit, retain and graduate traditionally under-represented students for graduate studies in Science, Technology, Engineer, and Mathematics (STEM) disciplines.
- Mentoring of students in implemented for success of the program

NSF Lewis Stokes Alliance for Minority Participation

Fall 2004 - Present

- Facilitate the scientific growth of traditionally under-represented students by identifying cooperative faculty or private industry personnel who will to train and mentor students during a summer internship or an ongoing academic year experience

IUB Committee on Inclusion and Academic Climate **Spring 2005 – Present**

- Investigate factors that are important in retaining traditionally under-represented faculty and staff on IUB campus

NIH Initiative for Minority Student Development **Fall 2004 – Present**

- Interview, recommends and selects traditionally under-represented students for a 10 week summer internship doing scientific research in a cooperative faculty research laboratory

IUB Environmental Science and Policy (ESAP) **Fall 2003 - Present**

- Governance and marketing of Environmental Science Programs in the School of Public and Environmental Affairs (SPEA) on IUB campus

IUB Department of Chemistry Recruiting **Spring 2006 – Present**

- Identify and recommend traditionally under-represented student for admission to the chemistry graduate program. Traditionally under-represented students are identified at Annual National NOBCCChE conference

IUB SPEA Recruiting

- Assist in recruiting students in SPEA's Environmental Science Programs

IUB Chemistry Awards Committee

- Select chemistry undergraduate students to receive merit awards

IUB Office of Admission Recruiting **Spring 2004 - Present**

- Present mock lecture on Environmental Science to traditionally under-represented high school students interested attending IUB

IUB Office of Community and School Development **Spring 2005 – Present**

- Present mock lectures on chemistry and environmental science to elementary students

IUB Hudson and Holland Scholars Program **Fall 2003 - Present**

- Formal science advisor for students majoring in science
- Give motivational talk to students
- Author of Survival Skills for Students Participating in Minority
- Achievement Program/Mathematics and Science

IUB Global Learning Focus Committee **Fall 2007 - Present**

- Establish curriculum for Global learning

IUB Affirmative Action Committee

March 2009 –Present

Interview campus administrators to evaluate performance of Julie Knost, Director of Affirmative Action

IUB Woman in Science Program (WISP)

March 2009 – present

- Critique and Judge poster sessions

NSF ExxonMobil Bernard Harris Summer Science Camp (EMBHSSC) Selection Committee

Summer 2009

- Review and select applications of traditionally under- represented elementary students for summer science camp

PUBLIC SERVICES- STATE & REGIONAL

NOBCChE Indianapolis

Summer 2009 – present

Advisory Board Member

Elli Lilly NOBCChE Biotechnology Conference

**Indianapolis, Indiana
Fall 2008**

- Guest Luncheon speaker to High School Students
- TOPIC: Value of Education

PUBLIC SERVICE- NATIONAL

National Association for the Advancement of Colored People (NAACP)

Fall 2006 – present

Member

PROFESSIONAL ACTIVITIES

General Electric/SABIC Plastics

**Mount Vernon, Indiana
Spring 2006 -present**

• Established 10 week student summer internships for IUB traditionally under-represented chemistry students

Los Alamos National Laboratory

**Los Alamos, NM
Summer 2005 – present**

Member of Tritium Science and Technology Group

- Attend annual workshop on advancement in hydrogen technology
- Arrange contacts for student summer internships

NSF LSAMP Indiana and Midwest Crossroads AGEP First Annual Joint Conference

Fall 2005

- Attend conference on the importance of mentoring traditionally under-represented students in the STEM discipline

- Participated in panel discussion

AAAS-HBCU

Fall 2007 – Present

**(American Association for the Advancement of Science-
Historical Black Colleges and Universities)**

Panel Judge at National Conference

- Evaluate and critique students' oral and poster research presentation

**Board Member National Graduate Engineering Fellowship for Minorities
Consortium**

Summer 2008 - Present

- Established membership for IUB
- Obtained corporate sponsorship (SABIC Plastics) for IUB
- Obtained sponsorship from COOKs Inc: another IUB corporate sponsor
- IUB membership has access to national data base to recruit some of the best academically prepared traditionally under-represented graduate students into IUB STEM disciplines.

**Guest Luncheon Speaker at Elli Lilly NOBCCHE Biotechnology
Conference**

**Indianapolis, Indiana
Fall 2008**

- The application of chemistry in biotechnology and the
- Importance of science education in high school

GRANTS

Scholarship of Teaching and Learning IUB

Summer 2006 – Present

Title: Project CARE (*Chemistry Taking Action to Research and Enhance Students
Achievement*)