Biosketch

Paul W. Bohn
Arthur J. Schmitt Professor of Chemical and Biomolecular Engineering
Professor of Chemistry and Biochemistry
University of Notre Dame, Notre Dame, IN 46556

A. Professional Preparation

University of Notre Dame	Notre Dame, IN	Chemistry	B.S. 1977
University of Wisconsin-Madison	Madison, WI	Chemistry	PhD 1981

B. Appointments

2008-present	Director, Advanced Diagnostics & Therapeutics Initiative, Univ. of Notre Dame
2006-present	Professor of Chemistry and Biochemistry, Univ. of Notre Dame
2006-present	Arthur J. Schmitt Professor of Chemical and Biomolecular Engineering
2004-2006	Faculty Affiliate, Institute for Genomic Biology, UIUC
2003-2006	Centennial Professor of the Chemical Sciences, UIUC
2001-2006	Research Professor of Micro and Nanotechnology UIUC
2001-2002	Vice Chancellor for Research, UIUC
1992-2006	Professor of Chemistry and Professor, Beckman Institute, UIUC
1994-1999	Department Head, Department of Chemistry, UIUC
1993-1994	Director, School of Chemical Sciences, UIUC
1992-2006	Professor of Chemistry, Beckman Institute for Advanced Science and Technology
1989-1992	Assoc. Prof. of Chemistry and Assoc. Prof., Beckman Institute, UIUC
1983-2006	Member, Materials Research Laboratory, UIUC
1983-1989	Assistant Professor of Chemistry, University of Illinois (UIUC)
1981-1983	Member of Technical Staff, Bell Laboratories, Murray Hill, NJ

C. Products (selected from over 260 publications and patents)

<u>Products Most Closely Related to the Proposed Research</u>

1. Contento, N.M.; Branagan, S.P.; Bohn, P.W. "Electrolysis in Nanochannels for *In Situ* Reagent Generation in Confined Geometries," *Lab on a Chip* **2011**, 11, 3634-3641. [DOI 10.1039/C1LC20570F]
2. Branagan, S.P.; Contento, N.M.; Bohn, P.W. "Enhanced Electron Transfer Reactions at Annular Nanoband Electrodes Embedded in Nanocapillary Array Membranes," *J. Am. Chem. Soc.* **2012**, 134, 8617-8624. [DOI 10.1021/ja3017158]
3. Ma, C.; Contento, N.M.; Bohn, P.W. "Redox Cycling on Recessed Ring-Disk Nanoelectrode Arrays in the Absence of Supporting Electrolyte," *J. Am. Chem. Soc.* **2014**, 136, 7225-7228. [DOI 10.1021/ja502052s]
4. Zaino, L.P. III; Grismer, D.A.; Han, D.; Crouch, G.M.; Bohn, P.W. "Single Molecule Spectroelectrochemistry of Freely Diffusing Flavin Mononucleotide in Zero-Dimensional Nanophotonic Structures," *Faraday Disc.* **2015**, 184, 101-115. [DOI 10.1039/C5FD00072F]
5. Han, D.; Zaino, L.P. III; Fu, K.; Bohn, P.W. "Redox Cycling in Nanopore-Confined Recessed Dual Ring Electrode Arrays," *J. Phys. Chem. C* **2016**, 120, 20634-20641. [DOI 10.1021/acs.jpcc.6b01287]

Next Most Closely Related Products

6. Zhao, J.; Branagan, S.P.; Bohn, P.W. "Single Molecule Enzyme Dynamics of Monomeric Sarcosine Oxidase in a Au-Based Zero-Mode Waveguide," *Appl. Spectrosc.*, **2012**, 66, 163-169. [DOI 10.1366/11-06464]
7. Zhao, J.; Zaino, L.P.; Bohn, P.W. "Potential-Dependent Single Molecule Blinking Dynamics for Flavin Adenine Dinucleotide Covalently Immobilized in Zero-Mode Waveguide Array of Working Electrodes," *Faraday Disc.* **2013**, 164, 57-69. [DOI 10.1039/C3FD00013C]
8. Ma, C.; Contento, N.M.; Gibson, L.R., II, Bohn, P.W. "Redox Cycling in Nanoscale Recessed Ring-Disk Electrode Arrays for Enhanced Electrochemical Sensitivity," *ACS Nano* **2013**, 7, 5483-5490. [DOI 10.1021/nn401542x]
9. Ma, C.; Zaino, L.P. III; Bohn, P.W. "Self-Induced Redox Cycling Coupled Luminescence on Nanopore Recessed Disk-Multiscale Bipolar Electrodes," *Chem. Sci.* **2015**, 6, 3173-3179. [DOI 10.1039/c5sc00433k]
10. Fu, K.; Han, D.; Ma, C.; Bohn, P.W. "Electrochemistry at Single Molecule Occupancy in Nanopore-Confined Recessed Ring-Disk Electrode Arrays," *Faraday Disc*. **2016**, 193, 51-64. [DOI 10.1039/C6FD00062B]

D. Synergistic Activities

1. Co-Editor-in-Chief, *Annual Reviews of Analytical Chemistry*, Annual Reviews, Editorial Board 2012-present, Co-editor 2015-present. The *Annual Review of Analytical Chemistry*, first published in 2008, provides a perspective on the field of analytical chemistry. The journal draws from disciplines as diverse as biology, physics, and engineering, with analytical chemistry as the unifying theme.

2. Co-organizer (with M. Dantus - Michigan State Univ), NSF Workshop on Mid-Scale Instrument Development in the Chemical Sciences, November 6-8, 2016. "Mid-Scale Instrumentation Needs in the Chemical Sciences," 2017 PittCon, Chicago, IL, March 5-9, 2017, co-organized with R. Hamers, Univ. of Wisconisn-Madison.

3. Supervisory Board Chair, Tyndall FlexiFab for Applied Convergent Nanotechnologies (TYFFANI), Tyndall National Institute, Cork, Ireland, 2011-2014.

4. Executive Committee, Center for Nano-Chemical Electrical and Mechanical Manufacturing Systems – an NSF NSEC, 2008 – 2013.

5. *Analyst*, Royal Society of Chemistry, Editor for the Americas, 2007-2009; Chair of the Editorial Board, 2010-2013, Editorial Advisory Board, 2014-present.