

# JOHN MICHAEL WIENCEK

## ACADEMIC AND LEADERSHIP APPOINTMENTS

**Provost and Executive Vice President  
Professor, Chemical Engineering**

**Provost and Vice President of Academic Affairs (Interim, 8/14-3/15))  
Sr. Vice Provost for Administration & Strategic Initiatives (8/13-8/14; 3/15-6/15)**

**Graduate Director  
Professor, Chemical and Biochemical Engineering**

**Gr (7/89-7/94) Assistant Professor, Department of Chemical and Biochemical Engineering**

## EDUCATION

**Ph.D. M.S. Chemical Engineering**  
**NASA Graduate Fellow**  
**Case Western Reserve University**  
*Liquid Membrane Separations Employing Nonionic Microemulsions*

**B.S. Chemical Engineering, Cum Laude**  
**University of Cincinnati**  
**Outstanding Chemical Engineering Co-operative Education Student**







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**R Envisioning the college's framework (Months 7-16).**

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**R Building the college (2009-2012).**

R *Goal 1: Ensure academic and future professional success for our students.*

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R **Building the AAU profile.**









**FUNDED RESEARCH GRANTS (Principal Investigator is underlined)**

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**FUNDED RESEARCH GRANTS (Principal Investigator is underlined) - continued**

\_\_\_\_\_ *Real-time Monitoring of Protein Concentration in Solution to Control Nucleation and Cr{stal Growth,*

*Qualit{,* \_\_\_\_\_ *Thermod{namics of Protein Cr{stalli|ation and Links to Cr{stal*

\_\_\_\_\_ *Microgravit{*

**FUNDED RESEARCH GRANTS (Principal Investigator is underlined) - continued**

\_\_\_\_\_ *Development*  
*of Flame AA Techniques for Iron Analysis of Liquid Propellant,*

\_\_\_\_\_ *Demulsification*  
*of Water/Oil/Solid Emulsions Using Hollow Fiber and Tubular Membrane Modules,*

\_\_\_\_\_ *Removal of Chlorinated*  
*Phenols from Contaminated Water Using Bimetallic-Catalyzed Polymerization in an*  
*Organic Solvent,*

\_\_\_\_\_ *Research Experiences for*  
*Undergraduates Supplement*



**PEER REVIEWED PUBLICATIONS (cont)**

*Temperature Insensitive Near-Infrared Method for  
Determination of Protein Concentration during Protein Crystallization, J. Biol. Chem. 273: 10511-10515 (1998)*

*Static Light Scattering Studies of OmpF  
Porin: Implications for Integral Membrane Protein Crystallization, J. Biol. Chem. 273: 10516-10521 (1998)*

*Temperature-Independent Near-Infrared Analysis of Lysozyme  
Aqueous Solutions, J. Biol. Chem. 273: 10522-10526 (1998)*

**PEER REVIEWED PUBLICATIONS (cont)**

*Structure,"* — *"Protein Eztraction into Nonionic Microemulsions: Effect of Surfactant*

*Membranes,ö* — *öMercur{ Removal from Aqueous Streams Utili|ing Microemulsion Liquid*

*Microemulsion Liquid Membranes,ö* — *öElectrical and Chemical Demulsification Techniques for*

*öL{so|{me Cr{stalli|ation Studies at High Pressure,ö*

— *öA Mass Transfer Model of Mercur{ Removal from Water via*  
*Microemulsion Liquid Membranes,ö*

**PEER REVIEWED CHAPTERS**

*Crystallization of Proteins,*

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*Use of Emulsions, Microemulsions and Hollow Fiber Contactors  
as Liquid Membranes,*

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*Product Recovery and Purification via Precipitation and Crystallization*

*Application of Microemulsions as Liquid Membranes,*



## **INVITED SEMINARS**

*"Association of Insulin and Light Scattering in Flow Environments"*

**INVITED SEMINARS (cont)**

*"Cryopreservation of Protein Crystals: Applications to Structural Biology"*

*"Engineering Approaches to Improved Protein Crystallization"*

*"Integral Membrane Protein Crystallization: A Light Scattering Study"*

*"In Search of Highly Stable Liquid Membranes for Metal Ion Separations"*

*"Protein Crystallization: Improving Resolution of X-ray Structures"*



## **PRESENTATIONS**



**PRESENTATIONS (cont)**

*•Role of Electrolyte on Crystallization of Lysozyme,•*

*•An Intelligent Temperature Control Algorithm for Protein Crystallization•*

*•Temperature Induced Crystallization of Lysozyme in Solutions of NaCl and NaSCN,•*

*•The Role of the Surfactant in Membrane Protein Crystallization,•*

*•Experimental Investigation of the Effect of Electrolyte on Heats of Crystallization in Protein Systems,•*

*•Rapid Phase Diagram Determination via Microcalorimetry,•*

*•Microgravity Enhanced Protein Crystallization: Feedback Control Using Temperature and Spectroscopy,•*

**PRESENTATIONS (cont)**

*"Protein Extraction Using Affinity Surfactants,"*

*Enzyme-Catalyzed Polymerization of Phenolics in Monophasic Water-Immiscible Organic Solvents,"*

*Enzyme-Catalyzed Phenolic Removal from Water Driven by Enzyme Catalysis in Organic Media,"*

*Enzyme-Catalyzed Phenolic Removal Driven by Enzyme Polymerization in Water-Immiscible Organic Media,"*







*Separations for Wastewater Treatment*





