

Peng Jing-Curriculum Vitae

Assistant Professor of Chemistry
Indiana University-Purdue University Fort Wayne
Department of Chemistry
2101 East Coliseum Boulevard
Fort Wayne, IN, 46805-1499
Phone: (260) 481-6298
Fax: (260) 481-6070
E-mail: jingp@ipfw.edu

Career history

Assistant Professor, Department of Chemistry, Indiana –Purdue University, USA, 2011-present
Postdoctoral Fellow, Department of Biomedical Engineering, University of Cincinnati, USA, 2006-2011
Postdoctoral Fellow, Department of Cell Biology, Cleveland Clinic Foundation, USA, 2005-2006
Assistant Professor, Department of Applied Chemistry, Xi An Jiao Tong University, China, 2004-2005
Lecturer, Department of Applied Chemistry, Xi An Jiao Tong University, China, 1998-2004
Teaching Assistant, Department of Applied Chemistry, Xi An Jiao Tong University, China, 1995-1997

Education

1992	B.E.	Beijing Institute of Technology, Beijing, China
1995	M.E.	Beijing Institute of Technology, Beijing, China
2003	Ph.D	Kyushu University, Fukuoka, Japan

Teaching Experience

Indiana University- Purdue University Fort Wayne

CHM 111, General Chemistry, (Spring of 2012)
CHM 104, Living Chemistry, (Fall of 2011)
CHM 424, Analytical Chemistry II (Spring of 2012 and Spring 2013)

Xi An Jiaotong University, Xi An China (1995-2005)

Lab Course for General Chemistry (1995-1997)
General Chemistry (1998-1999, 2003-2005)
Modern Instrumental Analysis (2003-2005)

Publications

Huaming Fang., **Peng Jing**, (Co-First Author), Farzin Haque, Peixuan Guo, *Role of Channel Lysines and the "Push Through a One-Way Valve Mechanism of the Viral DNA Packaging Motor*, **Biophysical Journal**, 2012, 102, 1-9.
Peng Jing, Farzin Haque, Dan Shu, and Peixuan Guo, *One-way Traffic of a Viral Motor Channel for DsDNA Translocation*, **Nano Letters**, 2010, 10, 3620-3627.
Peng Jing, Farzin Haque, Anne P. Vonderheide,., Carlo Montemagno, Peixuan Guo. *Robust Properties of Membrane-Embedded Connector Channel of Bacterial Virus Phi29 DNA Packaging Motor*. **Molecular Biosystems**, 2010, 6, 1844-1852.
David Wendell, **Peng Jing** (Co-First Author), Jia Geng, Tae Jin Lee, Carlo Montemagno, Peixuan Guo, *Double Stranded DNA Translocation through a Novel Phi29 Motor-Based Pore*. **Nature Nanotechnology**, 2009, 4, 765-772.
Peng Jing, Jangwook P. Jung, Joel H. Collier. *Nanostructured Materials Constructed from Polypeptides*, in **NanoScience in Biomedicine**, D. Shi, Editor, Springer, New York 2009, 95-126.
Peng Jing, Jai S. Rudra., Andrew B. Herr, Joel H. Collier, *Self-Assembling Peptide Polymers Designed from the Coiled-coil Region of Fibrin*, **Biomacromolecules**, 2008, 9, 2438-2446.

- Peng Jing**, Takashi Kaneta, Totaro Imasaka. *On-Line Concentration of a Protein Using Denaturation by Sodium Dodecyl Sulfate Denaturation*. **Analytical Sciences**, 2005, 21, 37-42.
- Peng Jing**, Takashi Kaneta, Totaro Imasaka. *Band Broadening Caused by the Multiple Labeling of Proteins in Micellar Electrokinetic Chromatography with Diode Laser-Induced Fluorescence Detection*. **Journal of Chromatography A**, 2002, 959, 281-287.
- Peng Jing**, Takashi Kaneta, Totaro Imasaka. *Micellar Electrokinetic Chromatography with Diode Laser Induced Fluorescence Detection as a Tool for Investigating the Fluorescence Labeling of Proteins*. **Electrophoresis**, 2002, 23, 550-555.
- Peng Jing**, Takashi Kaneta, Totaro Imasaka. *Determination of Dye/Protein Ratios in a Labeling Reaction between a Cyanine Dye and Bovine Serum Albumin by Micellar Electrokinetic Chromatography Using a Diode Laser-Induced Fluorescence Detection*. **Electrophoresis**, 2002, 23, 2465-2470.
- Peng Jing**, Ruonong Fu, Wei Zhou, Rongji Dai, Zaifu Huang, Yanfei Chen. *Unusual Behaviour of a New Kind of Side Chain Crown Ether Polysiloxanes Used in Capillary Gas Chromatography*, **Journal of Chromatography A**, 1996, 752, 189-195.
- Peng Jing**, Ruonong Fu, Rongji Dai, Jilong Ge, Junling Gu, Zaifu Huang, Yanfei Chen. *Consequence of Diluting Modified Cyclodextrins in a Side-Chain Crown Ether Polysiloxane and in a Side-Chain Liquid-Crystalline Polysiloxane-Containing Crown Ether as Stationary Phases in Capillary Gas Chromatography*. **Chromatographia**, 1996, 43, 546-550.
- Peng Jing**, Ruonong Fu, Rongji Dai, Junling Gu. *Investigation into the Separation of Achiral and Chiral Molecules on Fused-Silica Capillary Columns Coated with Three Peralkylated Cyclodextrins*. **Chromatographia**, 1996, 43, 628-632.
- Peng Jing**, Ruonong Fu. *Supramolecular Chemistry for Gas Chromatography. I. Relationship between Supramolecular Chemistry and Gas Chromatography*. **Chinese Journal of Analytical Chemistry**, 1995, 23, 104-110.
- Chun Huang, Ruonong Fu, **Peng Jing**, Zaifu Huang, Wei Xu. *A New Mixed Stationary Phase Containing Side-Chain Liquid Crystalline and Side-Chain Crown Ether Polysiloxane in Capillary Column Gas Chromatography*, **Chinese Journal of Chromatography**. 1994, 12, 50-52.
- Ruonong Fu, **Peng Jing**, Junling Gu, Zaifu Huang, Yanfei Chen. *Side-Chain Liquid Crystalline Polysiloxane Containing Crown Ether Used as Stationary Phase for Capillary Gas Chromatography*, **Analytical Chemistry**. 1993, 65, 2141-2144.
- Ruonong Fu, **Peng Jing**, Junling Gu, Zaifu Huang, Yanfei Chen. *A New Stationary Phase for Capillary Column Gas Chromatography - Side Chain Liquid Crystalline Polysiloxane Containing Crown Ether*, **Chinese Journal of Analytical Chemistry**. 1993, 21, 896-899.
- Zaifu Huang, Yanfei Chen, Guojun Cai, Ruonong Fu, **Peng Jing**. *Studies On the Synthesis of Liquid Crystal Crown Ether and Used as Stationary Phase for Capillary Gas Chromatography*, **Journal of Wu Han University (Natural Science Edition)**, 1993, 6, 93-99.

Oral presentation at Seminars:

- 2009**: "Channel Conductance and dsDNA Translocation Through Phi29 Motor Nano-Channels Integrated in Liposomes and Lipid Membrane." 2nd Annual Nanotechnology Symposium, Louisville, KY, 2009
- 2007**: "Synthesis and Characterization of Peptide-Polymers Inspired by the Coiled Coil Domain of Fibrin for Constructing Self-Assembled Biomaterials." 6th Annual Midwest Tissue Engineering Consortium(MTEC), Ann Arbor, MI,
- 2002**: "On-line sample stacking for fluorescently labeled proteins in micellar electrokinetic chromatography with diode laser induced fluorescence detection." The 51 th Annual Conference for Japanese Society of Analytical Chemistry, Hokaido, Japan.
- 2001**: "Investigation into multiple fluorescently tagged proteins by means of micellar electrokinetic chromatography with diode laser induced fluorescence detection." The 21st Symposium on Capillary Electrophoresis ASIANALYSIS VI, Kobe, Japan.
- 2001**: "Real-time Investigation of a Reaction between a Protein and a Cyanine Fluorescent Reagent by Micellar Electrokinetic Chromatography with Diode Laser-Induced Fluorescence Detection." The Sixth Asian Conference on Analytical Sciences joint conference ICAS 2001 (IUPAC International Congress on Analytical Sciences), Tokyo, Japan.

Poster Presentation

Peng Jing, Farzin Haque, Carlo Montemagno, Peixuan Guo. *The One Way Traffic Property of DNA Translocation through the Connector Channel of the Phi29 DNA Packaging Motor Using an Electrophysiological Approach*. 30th Annual American Society for Virology Meeting, University of Minnesota, Twin Cities, Minneapolis campus, 2011

Peng Jing, Anne P. Vonderheide, Fazin Haque, Carlo Montemagno, Peixuan Guo. *Electrophysiological Method For Quantification of The Number of Phi29 DNA Packaging Nano pore in Planar Bilayer Membrane*. Biophysical Society 54th Annual Meeting, San Francisco, California, 2010

Farzin Haque, Peng Jing, Peng Jing, Jia Geng, Chris Stites, Peixuan Guo, *Fingerprinting of DNA and RNA Using the Channels of Bacteriophage Phi29 DNA Packaging Motor*, Biophysical Society 54th Annual Meeting, San Francisco, California, 2010.

Peng Jing, Farzin Haque, Jia Geng, Barbara Evans, Elias Greenbaum, Peixuan Guo, *Nanopore of Phi29 DNA Packaging Motor with Potential for Restoration of Macular Degeneration of Eyes*, NIH Nanomedicine Development Centers 4th Annual Awardee Meeting, Pacific Grove, California, 2010

Farzin Haque, Peng Jing, Hui Zhang, Jia Geng, Peixuan Guo. *Gene and Drug Loading to Liposome through The Membrane-Embedded Channel of Bacterial Virus Phi29 DNA Packaging Motor*, NIH Nanomedicine Development Centers 4th Annual Awardee Meeting, Pacific Grove, California, 2010.

Farzin Haque, Peng Jing, Jia Geng, Peixuan Guo. *Single Molecule Sensing of Antibodies, Chemical and Biopolymers Using the Membrane-Embedded Channel of Bacterial Virus Phi29 DNA Packaging Motor*, NIH Nanomedicine Development Centers 4th Annual Awardee Meeting, Pacific Grove, California, 2010.

Peng Jing, Jia Geng, Anne Vonderheide, Carlo Montemagno, Peixuan Guo. *Phi29 DNA-Packaging Motor As a Membrane Channel For Structure Chacterization of DNA and RNA*. NIH Nanomedicine Development Centers 4th Annual Awardee Meeting, Pacific Grove, California, 2010.

Chad Schwartz, Huaming Fang, Peng Jing, Farzin Haque, Jia Geng, Peixuan Guo, *Toward Construction of Biomimetic ATP-Driving Phi29 DNA Packaging Motor Without Procapsid*. NIH Nanomedicine Development Centers 4th Annual Awardee Meeting, Pacific Grove, California, 2010.

Anne Vonderheide, Peng Jing, Farzin Haque, Jia Geng, Carlo Montemagno, Peixuan Guo., *Robust Properties of Membrane-Embedded DNA-Packaging Motor of Bacterial Virus Phi29 for Real Time Single Channel or Single Molecule sensing*. NIH Nanomedicine Development Centers 4th Annual Awardee Meeting, Pacific Grove, California, 2010.

Peng Jing, Jia Geng, Farzin Haque, David Wendell, Carlo Montemagno, Peixuan Guo, *Single-Molecule Fingerprinting Using the Channel of Bacteriophage Phi29 DNA Packaging Motor*. NIH Nanomedicine Development Centers 3rd Annual Awardee Meeting, Bethesda, 2009.

Peng Jing, David Wendell, Jia Geng, Peixuan Guo, Carlo Montemagno. *Double-Stranded DNA Translocation Through Inserted Phage Phi29 Connector Into the Planar Bilayer Membrane*. NIH Nanomedicine Development Centers 3rd Annual Awardee Meeting, Bethesda, 2009.

David Wendell, Peng Jing, Cole Brokamp, Peixuan Guo, Carlo Montemagno. *The Engineering and Conductance of a Membrane-Bound Nanopore from the Phi29 Poral Protein*. NIH Nanomedicine Development Centers 3rd Annual Awardee Meeting, Bethesda, 2009.

Honors and awards

Model Individual Award, College of Sciences, Xi An Jiaotong University, China, 2004

Outstanding Dissertation Award, Beijing Institute of Technology, China.1995

Third Prize, "Feng Xian Cup" the National University Students Invention Contest, China. 1991

Grant, Fellowship and Scholarship support

2012 IPFW Summer Faculty Grant for Research

Funding Agency: Purdue University

May 2012-Aug., 2012

Postdoctoral Fellowship Research Program

Funding Agency: University of Cincinnati

Jan 2011-Dec 2011

Young Investigator Award

Funding Agency: National Natural Science Foundation of China

2006

Japanese Government (Monbukagakusho) Scholarship,

Funding Agency: The Ministry of Education, Culture, Sports, Science and Technology, Japan

Oct 1999-Mar 2003

Xu Te Li Scholarship,

Beijing Institute of Technology, China

1991

Professional affiliation

Membership: Indiana Academy of Science, 2013-

Membership: Biophysical Society, 2010-2011