

**T. K. Vinod**

Department of Chemistry, Western Illinois University, Macomb, IL 61455

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**Professional Preparation:**

University of Calicut (India)	B.Sc. (Chemistry)	1974-1977
University of Calicut (India)	M.S. (Chemistry)	1977-1979
University of Victoria (Canada)	Ph.D. (Chemistry)	1981-1986

**Appointments:**

Western Illinois University	Professor	2006-
Western Illinois University	Associate Professor	2001-2006
Western Illinois University	Assistant Professor	1997-2001
University of Oregon	Instructor	1994-1997
University of Oregon	Research Associate	1992-1994
Michigan Molecular Institute	Research Associate	1991-1992
Michigan State University	Research Associate	1986-1991

**Publications: (most relevant)**

1. Gandhari, R.; Maddukuri, P.P.; Vinod, T. K. "Oxidation of aromatic aldehydes using Oxone®" *J. Chem Ed.* **2006** (Accepted for publication)
2. Bowsher, M. S., Thottumkara, A. P.; Vinod, T. K. "In Situ Generation of o-iodoxybenzoic acid (IBX) and the catalytic use of it in oxidation reactions in presence of Oxone® as a co-oxidant" *Org. Lett.* **2005**, 7, 2933-2936.
3. Wright, R. S.; Vinod, T. K. "Synthesis of Two Rigid m-Terphenyl Derivatives with Peripheral H-Bonding Functional Groups for Use as Tectons in Crystal Engineering" *Jour. Undergrad. Chem. Res.* **2004**, 2, 79-83.
4. Wright, R. S.; Vinod, T. K. "Synthesis of Rigid m-Terphenyl Derivatives for Potential Use as Tectons in Crystal Engineering," *Tetrahedron Lett.* **2003**, 44, 7129-7132.
5. Thottumkara, A. P.; Vinod, T. K. "Synthesis and Oxidation Reactions of a User-and Eco-Friendly Hypervalent Iodine Reagent," *Tetrahedron Lett.* **2002**, 43, 469-472.

**Publications: (other)**

1. Anam, K. T.; Curtis, M. P.; Irfan, M. J.; Johnson, M. P.; Royer, A. P.; Shahmohammadi, K.; Vinod, T. K. "A One-Pot Synthesis of m-Terphenyls: A guided Exploration of Reaction Chemistry, Chromatography, and Spectroscopy. A Mini-Project for the Advanced Organic Chemistry Laboratory," *J. Chem. Ed.* **2002**, 79, 629-632.
2. Ananda, S.; Jagadeesha, M.B.; Puttaswamy, B. M.; Venketesha, B.; Vinod, T. K.; Gowda, N. M. "Kinetic and Mechanistic Studies of Some Aliphatic Amine Oxidation by Sodium-N-bromo-p-toluenesulfonamide in Hydrochloric Acid Medium" *J. Chem. Kinet.* **2000**, 32, 776-783.
3. Ryan, M.; Smith, M. P.; Vinod, T. K.; Lau, W. L.; Keana, J. F. W.; Griffith, O. H. "Synthesis, Structure activity Relationship, and the Effect of Polyethylene Glycon on Inhibitors of Phosphatidylinositol-specific Phospholipase C (PI-PLC) from *Bacillus cereus*." *J. Med. Chem.* **1996**, 39, 4366-4376.

4. Rajakumar, P.; Vinod, T. K.; Hart, H. "Meta-Terphenyls as Building Blocks for Pyridinophanes" *Tetrahedron*, **1995**, 51, 2267-2272.
5. Vinod, T. K.; Keana, J. F. W.; Griffith, O. H. "Synthesis of Isosteric and Isopolar Phosphonate Substrate Analogues Designed as Inhibitors for of Phosphatidylinositol-specific Phospholipase C (PI-PLC) from *Bacillus cereus*." *Tetrahedron Lett.* **1994**, 35, 7193-7196.

**Synergistic Activities:**

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**NSF Bio-sketch: James Scott McConnell**

**Professional Preparation:**

Texas A&M University	Soil and Environmental Chemistry	Ph.D.	1984.
Arkansas State University	Chemistry (Analytical Chemistry)	M.S.	1979.
Arkansas State University	Plant Sciences (Soil Science)	B.S.A.	1978.

**Appointments:**

- 8/06 - Present. Associate Director of Environmental Studies and Associate Professor of Chemistry. Western Illinois University.
- 1/90 - 8/06. Associate Professor. Department of Crops, Soils and Environmental Sciences. University of Arkansas.
- 7/84 - 1/90. Assistant Professor and Extension Specialist. Department of Crops, Soils and Environmental Sciences, and Cooperative Extension Service, University of Arkansas.

**Publications (Most Closely Related):**

1. J.S. McConnell, J.D. Mattice, and B.W. Skulman, C.K. Bryant, and M. Mozaffari. 2005. Sediment Loading and Water Quality of Field Run Off Water. J. of the Ark. Acad. of Sci. 59:116-121.
2. J.S. McConnell and M. Mozaffari. 2004. Yield, petiole nitrate, and node development responses of cotton to early season nitrogen fertilization. J. of Plant Nutr. 27:1183-1197.
3. P.F. Bell, D.J. Boquet, E. Millhollon, S. Moore, W. Eblehar, C.C. Mitchell, J. Varco, E.R. Funderburg, C. Kennedy, G.A. Breitenbeck, C. Craig, M. Holman, W. Baker, J.S. McConnell. 2003. Relationships between leaf-blade nitrogen and relative seedcotton yields. Crop Sci. 43:1367-1374.
4. J.S. McConnell and W.H. Baker. 1998. Yield and petiole nitrate responses of cotton (*Gossypium hirsutum* L.) to foliar nitrogen fertilization. J. of Cotton Sci. 2:143-152.
5. J.S. McConnell, W.H. Baker, and B.S. Frizzell. 1996. Distribution of residual nitrate-nitrogen in an alfisol cropped to long-term continuous cotton fertilization studies. J. Envir. Qual. 25:1389-1394.

**Publications (Other):**

1. J.S. McConnell, E.D. Vories, D.M. Oosterhuis, W.H. Baker. 1999. Effect of irrigation termination on the yield, earliness and fiber properties of cotton. J. of Prod. Agric. 12:263-268.
2. J.S. McConnell, F.M. Bourland, W..H. Baker and B.S. Frizzell. 1997. Yield, earliness and fiber strength of blends of cotton (*Gossypium hirsutum* L.) cultivars. Ark. Agric. Exp. Sta. Bull. 953.
3. J.S. McConnell, F.M. Bourland, W..H. Baker and B.S. Frizzell. 1997. Yield, earliness and fiber strength of blends of cotton (*Gossypium hirsutum* L.) cultivars. Ark. Agric. Exp. Sta. Bull. 953.
4. J.S. McConnell, R.E. Glover, E.D. Vories, W.H. Baker, B.S. Frizzell, and F.M. Bourland. 1995. Nitrogen fertilization and plant development of cotton as determined by nodes above white flower. J. Plant Nutr. 18:1027-1036.
5. J.S. McConnell, J.T. Gilmour, R.E. Baser, and B.S. Frizzell. 1991. Lime requirement of acid soils of Arkansas. Ark. Agric. Exp. Sta. Spec. Rep. 150.

## **Biographical Sketch: Rose Marie McConnell**

### **Professional Preparation:**

Arkansas State University	Chemistry	B.S. 1979
Texas A & M University	Chemistry	Ph.D. 1983
Texas A & M University	Biochemistry	post-doc.1984

### **Appointments:**

7/06 – present	Chair, Dept. of Chemistry, Western Illinois University
9/96 - 6/06.	Professor of Chemistry, Univ. of AR - Monticello.
8/92 - 8/96	Associate Professor of Chemistry, Univ. of AR - Monticello
7/90 - 8/92	Associate Professor of Chemistry, Univ. of AR - Pine Bluff
9/86 - 6/90	Assistant Professor of Chemistry, Univ. of AR - Pine Bluff

### **Recent Grants Funded (past 10 yrs):**

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### **List of Most Relevant Publications:** (undergraduate students underlined)

McConnell, R.M.; Godwin, W.E.; Baker, S.E.; Powell, K.; Baskett, M.; and Morara, A. Polyfuran and Co-polymers: A Chemical Synthesis. *International Journal of Polymeric Materials*. **2004**, 53(8), 697-708.

McConnell, M.S.; Green, A.W.; Trana, C.J.; Lindley, J.F.; Godwin, W.E.; McConnell, R.M. Doped Co-polymers of Polyfuran: Chemical Synthesis and Conductivity Studies. *Journal of Undergraduate Chemistry Research: Virginia Military Institute*, **2005**, 1, 149-152.

McConnell, R.M.; McConnell, M.S.; Green, A.W.; Hatfield, S.E.; Powell, K.; Baskett, M.; Godwin, W. E. Chemical Synthesis of doped co-polymers of polyfuran with small amounts of pyrrole or thiophene. *Polymer* (Accepted in **2007**).

McConnell, R.M.; Godwin, W.E.; McConnell, M.S.; Trana, C.J.; Green, A.W. Preparation and Characterization of Doped Copolymers of Polyfuran with Pyrrole or Thiophene. Accepted for publication **2007** by *International Journal of Polymeric Materials*.



**List of Most Other Relevant Publications: (undergraduate students underlined)**

McConnell, R.M.; Godwin, W.E.; Stefan, A.; Newton, C.; Herring, N.; Goss, C.  
Preparation of Novel Hydroxyethyl Amine Isosteres as Potential Cathepsin D Inhibitors. *Journal of the Arkansas Academy of Science*, **2003**, *56*, 108-116.

McConnell, R.M.; Godwin, W.E.; Stefan, A.; Newton, C.; Myers, N.; Hatfield, S.E. Synthesis and Cathepsin D Inhibition of Peptide-Hydroxyethyl Amine Isosteres With Cyclic Tertiary Amines. *Letters in Peptide Science*, **2003**, *10*, 69-78.

McConnell, R.M.; Godwin, W.E.; Stefan, A.; Newton, C.L.; Myers, N.; Hatfield, S.E. Cathepsin D Inhibitors: Hydroxyethyl amine Isosteres with Cyclic Tertiary Amines. *Inhibition Studies*. Accepted for publication **2007** by the *Journal of Medicinal Chemistry*

McConnell, R.M.; Green, A.W.; Trana, C.J.; McConnell, M.S.; Lindley, J.F.; Hatsfield, S.E., Godwin, W.E. New Cathepsin D Inhibitors with Hydroxyethylamine Isosteres: preparation and Characterization. *Medicinal Chemistry* , **2006**, *2*, 27-38.

McConnell, R.M.; Trana, C.J.; Green, A.W.; Myers, N.; Hatfield, S.E.; Sayyar, K.L.; Godwin, W.E. Development of Cathepsin D Inhibitors with Hydroxylethyl Piperazine Derivatives. *Journal of Undergraduate Research*, **2006**, *1*, 19-27.

**Synergistic Activities:** 22 years of teaching experience- General Physical Science,

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**Gilles K. Kouassi**  
Department of Chemistry, Western Illinois University  
324B Currens Hall, Macomb, IL, 61455  
Phone: 309-298-172

**Name of Senior Project Personnel**

Gilles K. Kouassi

**Professional Preparation**

January 2003. Ph.D. in Food Chemistry from the Departments of Applied Chemistry and Microbiology and Food Technology, University of Helsinki, Finland

Major: Food Physical chemistry

Minors: Polymer Science-Food Technology (integrated)

Dissertation title: State transitions and enzymatic activity in low moisture carbohydrate food systems

April 1998. M.S. in Food Chemistry from the Division of Food Chemistry, Department of Applied Chemistry and

Microbiology, University of Helsinki

Major: Food Chemistry

Minors: Analytical Chemistry-organic chemistry (integrated)

Thesis: "Phenolic contents in relation to antioxidant activity of berry and fruit products"

**Appointments**

August 2007-Present, Assistant Professor, Department of Chemistry, Western Illinois University.

July 2006-July 2007: Postdoctoral Research Scientist at the Department of Food Science of the Pennsylvania

State University

March 2004-June 2006: Postdoctoral Research Scientist at the Division of Food Engineering of the

Department of Agricultural and Biological Engineering, Pennsylvania State University

Research Associate, February 1998-January 2003. Department of Food Technology, University of Helsinki.

**Publications (Most Closely Related)**

1. Kouassi, K. G., Wang, P., Sreevatan, S., Irudayaraj J. 2007. Aptamer-mediated magnetic and gold coated magnetic nanoparticles as detection assay for prion protein assessment. *Biotechnol. Progress.* 23, 5, 1239-1244.
2. Kouassi, K.G. Irudayaraj J. 2006. Magnetic and gold coated magnetic nanoparticles as a DNA sensor. *Anal. Chem.* 78, 3234-3241.
3. Kouassi, K. G., Irudayaraj, J., McArty, G. 2005. Activity of glucose oxidase functionalized onto magnetic nanoparticles. *Biomag. Res. and Technol.* 3:1.
4. Kouassi, K. and Roos, Y. 2002. Glass transition, water, and glycerol effects on Sucrose inversion in pullulan-sucrose systems. *J. Food Sci.* 67, 3402-3407.
5. Kouassi, K., Jouppila, K. and Roos, Y. 2002. Effect of  $\kappa$ -carrageenan on crystallization and enzyme activity in lactose-sucrose systems. *J. Food Sci.* 67, 2190-2195.

**Publications (Other)**

1. Kouassi, K.G, Knabel, J.S., Anantheswaran, R. Floros, D. J. 2007. Investigating the effects of high pressure processing on activity and structural changes of alkaline phosphatase and lactate dehydrogenase in milk and buffers. In press *J. Agric. Food Chem.*
2. Hayman; M.M., Kouassi K. G., Floros, J., Anantheswaran, R. Knabel, S. 2007. Effect of

- water activity on the activity of lactase dehydrogenase and growth of *Listeria monocytogenes* upon high pressure treatments. In press. *Inter. J. Food Microbiol.*
3. Kouassi, K. G. Irudayaraj, J. 2006. A nanoparticles-based immobilization assay for prion kinetics study. *J. Nanobiotechnol.* 2006,4:8.
  4. Kouassi, K. G., Irudayaraj, J., McArty, G. 2004. Examination of cholesterol oxidase attachment onto magnetic nanoparticles. *J. Nanobiotechnol.* 3:1.
  5. Kouassi, K and Roos, Y. 2000. Glass transition and water effects on sucrose inversion by invertase in lactose-sucrose system. *J. Agric. Food Chem.* 48, 2461-2466.

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**Synergistic Activities (activities you have involved with that demonstrate your experience)**