

## **APPENDIX B – FACULTY RESUMES**

*Gerard J. F. Ring*

*Karyn L. Biasca*

*Donald F. Guay*



## **Gerard J. F. Ring**

### **Professor**

#### **EDUCATION**

- June 1980 Ph.D. (Pulp and Paper Technology) The Institute of Paper Chemistry, Appleton, Wisconsin. Dissertation: The Molecular Weight Distribution of Bacterial Cellulose as a Function of Synthesis Time.
- June 1976 M.S. (Pulp and Paper Technology) The Institute of Paper Chemistry, Appleton, Wisconsin. Research: The Effect of the Initial Oxidation State of Manganese as a Cellulose Degradator/Protector in Oxygen Alkali Bleaching.
- May 1974 B.S. (Chemistry and Biology) State University of New York at Albany.
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#### **EXPERIENCE**

- 2003-present Chair Department of Paper Science and Engineering. College of Natural Resources. University of Wisconsin - Stevens Point. Stevens Point, Wisconsin.
- 1986-present Professor. Department of Paper Science. College of Natural Resources. University of Wisconsin - Stevens Point. Stevens Point, Wisconsin.
- 1980-1986 Research Scientist - Kimberly-Clark Corporation, Corporate Science and Technology, Roswell, GA.
- 1969-1976 Summer Intern Research Chemist - International Paper Company, Central Research Center, Sterling Forest, NY.
- 1975 Summer Intern Project Engineer - Westvaco Pulp and Paper Corporation, Wyckliffe, KY.
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#### **PATENTS**

- United States Patent #11,844,818. Ring, G. J. F. (Aug 24, 2007). Paper Pulp Pre-Processor –T05055US.
- United States Patent #4,740,528. Garvey, C. E. and Ring, G. J. F. (Apr. 26, 1988). Superwicking crosslinked polyurethane foam composition containing amino acid.
- United States Patent #4,725,628. Garvey, C. E., Pazos, J. F. and Ring, G. J. F. (Feb. 16, 1988). Process of making a crosslinked superabsorbent polyurethane foam.
- United States Patent #4,548,847. Aberson, G. M. and Ring, G. J. F. (Oct. 22, 1985). Delayed-swelling absorbent systems.

#### **RESEARCH AND PUBLICATIONS**

- Ring, G. J. F. (2004). Packaging Grades. In Encyclopedia of Forest Sciences. Burley, J. (ed.), Elsevier.
- Ring, G. J. F. (2004). Paper Grades. In Encyclopedia of Forest Sciences. Burley, J. (ed.), Elsevier.
- Ring, G. J. F. (2004). Paperboard Grades. In Encyclopedia of Forest Sciences. Burley (ed.), J., Elsevier.
- Swanson, J. W. (2003). Gerard J. F. Ring, ed. Colloid Chemistry of Papermaking Materials. Atlanta, TAPPI Press.
- Ring, G. J. F. and Bacon, A. J. (1995) Multiple component analysis of fiber length distributions, 1997 Tappi Journal, 80(1): 224-231.
- Ring, G. J. F. (1990). PaperQuest: Curl, University of Wisconsin/Stevens Point, Stevens Point, Wisconsin.
- Ring, G. J. F. (1990). PaperQuest: Formation, University of Wisconsin/Stevens Point, Stevens Point, Wisconsin.
- Ring, G. J. F. (1989). PaperQuest: Opacity, University of Wisconsin/Stevens Point, Stevens Point, Wisconsin.
- Ring, G. J. F., Stratton, R. A. and Schroeder, L. R. (1983). Dispersion-compensated calibration for gel permeation chromatography: Theory and utilization for direct and universal calibration, Journal of Liquid Chromatography, 6(3): 401-424.
- Ring, G. J. F. (1982). Study of polymerization kinetics of bacterial cellulose through gel permeation chromatography. In R. M. Brown Jr. (ed.), Cellulose and Other Natural Polymer Systems, Plenum Press, New York, pp. 299-325.
- Ring, G. J. F. (1980). The molecular weight distribution of bacterial cellulose as a function of synthesis time, Ph. D. Thesis, The Institute of Paper Chemistry, Appleton, Wisconsin.
- Ring, G. J. F. (1976). The effect of the initial oxidation state of manganese as a cellulose degrader/protector in oxygen alkali bleaching, M.S. Thesis, The Institute of Paper Chemistry, Appleton, Wisconsin.
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#### **HONORS AND AWARDS**

- Fellow of TAPPI (2008).
- WiSys Technical Innovation Scholar Award for a Paper Pulp Preprocessor (2007).
- President of the UWSP Phi Kappa Phi Honorary Society (2006).
- Who's Who Among America's Teachers (1994, 2000, 2004, 2006)
- Inducted into Phi Kappa Phi Honorary Society (2004).

- Award for Excellence. University Continuing Education Association Region IV. Creative Program-Noncredit Award (1999).
- Recognition Award for "Going the Extra Mile: supporting UWSP extension Programming (1999).
- Wisconsin Teaching Fellow (1992).

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#### **POSITIONS IN PROFESSIONAL ORGANIZATIONS**

##### Technical Association of the Pulp and Paper Industry (TAPPI).

- Board of Directors (2005 – 2008)
- Operating Committee Member – Local Section Liason. (2003 – 2004)
- Member of the Local Section Transition Team (2002)
- Chair of the Leadership Committee, Local Sections Operating Council (LSOC) (2001 – 2002)
- Lake States LSOC Representative (2000 – 2002)
- Member of Lake States TAPPI Executive Committee (1987 – present). Chair (1998 –1999). Vice Chair (1997 – 1998). Treasurer (1996- 1997). Secretary (1995 – 1996)

#### **PRESENTATIONS**

- Redefining Fines. 2003. Paper Physics Seminar, Vancouver, B.C.
- Hyperbolic Nature of Tensile, Density and Light Scattering in Paper. 2002. Progress in Paper Physics Seminar, Finger Lakes/Syracuse, New York.
- Writing Emphasis in Paper Science. November 20, 1998, CNR brown-bag' seminar
- Multiple component analysis of fiber length distributions, 1995 International Paper Physics Conference, Niagara-on-the-Lake ON, pp. P75-P85.
- Uses of secondary fiber in the paper industry. February, 1990. Wisconsin Chapter of the Soil and Water Conservation Society of America, Stevens Point, Wisconsin.
- The fundamental properties of papermaking fibers. October, 1989. Pulp & Fiber Seminar, American Paper Institute, Ponte Vedra Beach, Florida.
- Presented Master's Thesis research (Manganese in oxygen pulping) at the Fortieth Executives' Conference, 1976, The Institute of Paper Chemistry, Appleton, Wisconsin.

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#### **UWSP SERVICE AND COMMITTEE MEMBERSHIP**

- University Affairs Committee (1998-present) Chair in 2002-2003, 2003-2004, 2006-2007.
- University Technology Committee (UTC) (1999)
- College of Natural Resources Computer Committee (1999)
- University Technology Advisor Committee (1997-1998)
- Faculty Senate Representative to the University Center Advisory and Policy Board (UCAPB) (1995 - 1999).
- Served as chair of successful search & screen for Paper Science Laboratory Manager position (1995/1996).
- Served on the Medical Technology department program review committee (1994/1995).
- Served on Search & Screen committee for Paper Science tenure-track faculty position (1995/1996).
- Served as chair of search and screen committee for temporary replacement of Said Abubakr's position (1992/1993).
- Served on the Philosophy/Religion department program review committee (1991/1992).
- Served as Faculty Senator (1990 - 1995).
- Member of the General Degree Subcommittee for 1988-1989 & 1989-1990
- Chaired the search and screen committee for the University's Director of the Physical Plant (1990).
- Served on the search and screen committee for a new graphic artist for the Telecommunications Department (1989).
- Served on the "Alan Haney Evaluation Committee" (1990).
- Served on the Search and Screen Committee for the Paper Science Department Chairman (1986/1987).
- Served on the Search and Screen Committee for two new paper science faculty members (summer of 1988).
- Served as a technical specialists in the search and screen for a new Chemistry stockroom supervisor (1991/1992).
- Served on the Macintosh Evaluation Subcommittee that led to the creation of a new student Macintosh computer lab on campus (1991/1992).
- Member of the CNR Instructional Media committee (1986-1990).

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Appointment: 100% Paper Science and Engineering

**Karyn L. Biasca****Professor****EDUCATION**

The University of California at Los Angeles (UCLA) Bachelor of Science (Chemical Engineering), December 1981

The Institute of Paper Chemistry, Appleton, Wisconsin, Master of Science (Pulp and Paper Technology), June 1986

The Institute of Paper Chemistry, Appleton, Wisconsin, Doctor of Philosophy, June 1989

Dissertation Topic: A Study of the Kinetics of Delignification During the Early Stage of Alkaline Sulfite

Anthraquinone Pulping

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**EXPERIENCE**

2007 - present: Professor, Department of Paper Science, University of Wisconsin - Stevens Point, Stevens Point, Wisconsin

1994 - 2007: Associate Professor, Department of Paper Science, University of Wisconsin - Stevens Point, Stevens Point, Wisconsin

1989 - 1994: Assistant Professor, Department of Paper Science, University of Wisconsin - Stevens Point, Stevens Point, Wisconsin

January 1988 - March 1988: Teaching Assistant (statistical methods) The Institute of Paper Chemistry, Appleton, Wisconsin

June 1986 - August 1986: Laboratory Assistant (pilot supercalender) Wartsila - Appleton Inc., Appleton, Wisconsin

February 1982 - July 1984: Process Engineer, Kimberly - Clark Corporation, Fullerton, California

August 1980 - December 1981: Senior Reactor Operator, UCLA Nuclear Energy Laboratory, Los Angeles, California

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**RESEARCH AND PUBLICATIONS**

Biasca, K. L. "Wood Fibers", Chapter 1, *The Pulp and Paper Technology Advanced Workforce Training and Education Series: 2005 - 2008*, TAPPI Press (2007)

Biasca, K. L. "Kraft Pulping", Chapter 4, *The Pulp and Paper Technology Advanced Workforce Training and Education Series: 2005 - 2008*", TAPPI Press (2007)

Biasca, K. L. "Bridging Hurdles-Recreating an Introductory Engineering Course Using Backward Design", in "Views from the Bridge: A collection of essays that share the professional journeys of colleagues," S. Gingrasso, L. Owen Wilson, eds. (June 2006)

Biasca, K. L. "Learning to Pulp - Helping Kids", TAPPI Frontline Focus, TAPPI Press (June 2006)

Biasca, K. L. "The Development of an Online Psychrometric Chart Tutorial," American Society for Engineering Education Annual Meeting and Conference, Best Poster - Honorable Mention (June 2005)

Biasca, K. L. "The New York Times Recycling Project," 2005 TAPPI Practical Papermaking Conference (May 2005)

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**PRESENTATIONS**

"Portfolios: A New Technology from a New Perspective," WISCNet Future Technologies Conference (April 2006)

"Bleaching Recycled Fiber", presentation for BTG Tissue Seminar, Green Bay, WI (November 2005)

Guay, D., Arthur, J. and Biasca, K. "Choosing and Using Control Charts for Pulp and Paper," 2005 TAPPI Practical Papermaking Conference (2005)

"New York Times Recycling Project", project reception, UWSP (May 2005)

"Outcomes Based Course Design", Curriculum Redesign Program, UWSP (June 2004)

"Assessment in Online Courses", Curriculum Redesign Program, UWSP (June 2004)

"Air, Water and Learning Objects", presented for IT Brownbag (February 2004), UWSP Line Officers (March 2004) and Board of Regents Campus Visit (April 2004)

"Writing Emphasis in the Paper Science Major", UWSP Teaching and Learning Summit (April 2001)

"A Technical Course on the Web", Faculty Technology Series, UWSP (December 1999)

"Classroom Assessment Techniques", CNR Brown Bag Series, UWSP (April 1999)

"Pulping and Bleaching" in Value Added Processing of Secondary Fibers, Lake States TAPPI, Appleton, WI (1993)

"Hot Topics in Paper Machines" in Paper Machine Operations, Lake States TAPPI, Appleton WI (1991)

"A Fluorescence Technique for Measurement of Dissolved Lignin Concentration", Institute of Paper Chemistry - Executives' Conference, Appleton, WI (May 1987)

"The Use of a Flow-Through Reactor for the Study of Pulping Kinetics", Institute of Paper Chemistry - Executives' Conference, Appleton, WI (May 1986)

## **HONORS AND AWARDS**

- University of Wisconsin - Stevens Point Excellence in Teaching Award (2005)
  - "Who's Who Among America's Teachers" (1998, 2005, 2006)
  - "Going the Extra Mile" Award, UWSP Extension (1999)
  - "High Tech Teacher" profile in UWSP Sundial (1996)
  - Computer Integrated Manufacturing (CIM) in Higher Education Leadership Award, IBM Corp. (1995)
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## **SERVICE TO THE UNIVERSITY**

- Steering Committee Co-coordinator and Mission and Integrity Task Force Chair, UWSP HLC Accreditation (2006-2008)
  - Ad Hoc Committee, Teaching and Learning Center (2005)
  - Ad Hoc Committee, Student Reaction to Course Instruction (2001-2003)
  - Faculty Affairs Committee Chair (2001-2003)
  - Committee on the Status of Women (2000-2003)
  - Faculty Athletic Representative - Women's Sports (1999-2004)
  - Academic Affairs Committee (1999-2001)
  - Faculty Senate (1997-99, 2000-2002, 2006)
  - Wisconsin Women in Higher Education Leadership Steering Committee (1998-2003)
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## **SERVICE TO THE COLLEGE OF NATURAL RESOURCES**

- Curriculum Committee (2000-2004)
  - Computer Committee (1994-99)
  - Human Resources Committee (1990-91)
  - Ad Hoc Committee on Tenure and Promotion Guidelines (1992)
  - CNR Career Days (1990-1997)
  - Natural Resources Careers Workshops for High School Teachers and Guidance Counselors (1990-1997)
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## **SERVICE TO THE DEPARTMENT OF PAPER SCIENCE AND ENGINEERING**

- Department Engineering Accreditation Coordinator (2006- )
  - American Society for Engineering Education Campus Representative (2000-present)
  - Assessment Coordinator (1997-present)
  - Paper Machine Computer Control System (1994-present)
  - Faculty Advisor to the Student Chapter of TAPPI/PIMA (1993- present)
  - Schedule Paper Science courses for the Timetable (1991-present)
  - Prospective Student Visits (ongoing)
  - High school presentations for student recruiting (ongoing)
  - Alumni Panel, The Institute of Paper Science and Technology, Atlanta, GA (1993, 1996)
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## **OUTREACH EDUCATION FOR THE PAPER INDUSTRY**

- PAPER Academy Hands-On Papermaking (1998-present)
  - Introduction to Pulping and Bleaching (1998-present)
  - Customized courses for industry clients (1998-present)
  - PAPER Academy Technical Certificate Program (1998-2000)
  - Basic Fiber Properties, Mechanical Pulp Refining, and Paper Machine Refining, customized course for C. A. Lawton Inc. (1999)
  - Introduction to Pulp Bleaching (1993)
  - Introduction to Pulp and Paper Technology (1993)
  - Applied Statistics for the Pulp and Paper Industry (1991)
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## **POSITIONS IN PROFESSIONAL ORGANIZATIONS**

- Continuing Education Chair, Pulp Manufacture Division, Technical Association of the Pulp and Paper Industry (TAPPI) (1992-93)
  - Alkaline Pulping Committee, Pulping Process Subcommittee, TAPPI, (1992-2004)
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Appointment: 100% Paper Science and Engineering

**Donald F. Guay**  
**Assistant Professor**

**EDUCATION**

University of Maine

Doctorate of Philosophy in Chemistry

Graduation Date: December, 1999

Dissertation Topic - Mechanisms of Oxidative Degradation of Carbohydrates During Oxygen Delignification

University of Wisconsin-Stevens Point

Bachelor of Science Degree

Graduation Date: May 1996

Major: Paper Science

Minor: Chemistry

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**EXPERIENCE**

2004 – Present University of Wisconsin-Stevens Point, Assistant Professor, Paper Science & Engineering Department

2000 – 2003 Integrated Paper Services, Inc. Appleton, Wisconsin, Technical Manager

1999 – 2000 Marathon Engineers/Architects/Planners, LLC Appleton, Wisconsin, Process Engineer

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**PUBLICATIONS**

*Peer-Reviewed Articles*

Evaluation of a Fractionating Saveall, (Guay, D.) 2007 TAPPI Papermaking Conference, 2007

Comparison of Fiber Length Analyzers, (Guay, D., & W. J. Rantanen, N. Ross-Sutherland, K. Mattingly, M. S. Schneider, N.A. Malandri, A.L. Stephens) 2005 TAPPI Practical Papermaking Conference, 2005.

Reactions of Photochemically Generated Hydroxyl Radicals with Cellulose Models and Cellulose, (Guay, D., & M. C. Hausman, O.-K. Lee, B. J. W. Cole, R. C. Fort) Proceedings of the 12th International Symposium on Wood and Pulping Chemistry, 2003, 279

Mechanisms of Oxidative Degradation of Carbohydrates During Oxygen Delignification. III. Reaction of Photochemically Generated Hydroxyl Radicals with 1,5-Anhydrocellobitol and Cellulose, (Guay, D. & B. J. W. Cole, R. C. Fort, J. Genco, M. C. Hausman, T. J. Elder) Journal of Pulp and Paper Science, 2002, 28(7)

Mechanisms of Oxidative Degradation of Carbohydrates During Oxygen Delignification II. Reaction of Photochemically Generated Hydroxyl Radicals with Methyl-b-D-Cellobioside, (Cole, B. J. W. & D. Guay, R. C. Fort, J. Genco, M. C. Hausman) Journal of Wood Chemistry and Technology, 2001, 21(1)

Mechanisms of Oxidative Degradation of Carbohydrates During Oxygen Delignification I. Reaction of Photochemically Generated Hydroxyl Radicals with Methyl-b-D-Glucoside, (Cole, B. J. W. & D. Guay, R. C. Fort, J. Genco, M. C. Hausman) Journal of Wood Chemistry and Technology, 2000, 20(3)

Mechanisms of Oxidative Degradation of Carbohydrates During Oxygen Delignification, (Guay, D. & B. J. W. Cole, R. C. Fort, J. Genco, M. C. Hausman) Proceedings of the 10th International Symposium on Wood and Pulping Chemistry, 1999, 222.

Mechanisms of Oxidative Degradation of Carbohydrates During Oxygen Delignification, (Guay, D. & B. J. W. Cole, R. C. Fort) Proceedings of the Technical Association of the Pulp and Paper Industry Pulping Conference, 1998, 27.

*Scientific Meetings*

Choosing and Using Control Charts for Pulp and Paper Quality (Guay, D., & K. Biasca, J. Arthur) 2005 TAPPI Practical Papermaking Conference, 2005.

Oxidative Cleavage of Carbohydrates During Oxygen-Alkali Pulping (Guay, D.) 1997 TAPPI Joint Engineering/Papermakers Super Conference Poster Session, 1997, SP-12.

*Seminars*

The Use of Hydroxy Acids From Black Liquor as Additives During Oxygen Delignification (Guay, D.) 2005 UWSP Chemistry Colloquium Series, 2005.

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**SERVICE**

*Professional Service*

I have been very active within the Technical Association of the Pulp and Paper Industry (TAPPI) and the American Society for Testing Materials (ASTM).

- TAPPI Pulp and Process Quality Division Chair (2006 – Present)

- TAPPI Quality and Standards Management Committee (2006 – Present)
- TAPPI ISO/TC6/WG4 Representative (2005 – Present)
- ASTM D6 Committee Representative (2003 – Present)
- TAPPI Ask the Experts (2003 – Present)
- TAPPI Pulp and Process Quality Division Vice-Chair (2004 – 2005)
- TAPPI Pulp and Process Quality Chemical Properties Committee Chair (2003 – 2005)

*University Service*

- Faculty Senate (2005 – Present)
- University Curriculum Committee (2005 – Present)
- EL GDR Assessment Committee (2005 – Present)
- CNR Curriculum Committee (2004 – Present)
- Student TAPPI/PIMA Organization Advisor (2004 – Present)

*Outreach Service*

- Hydrate Chemical Co. Consulting (2006 – Present)
- Hands-On Papermaking (2004 – Present)
- Georgia-Pacific Resins Consulting (2004 – Present)
- Coalboard Packaging Inc. Consulting (2005 – 2006)
- NuWay Speaker Products, Inc. UWSP Paper Machine Operation (2005 – Present)

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Appointment: 100% Paper Science and Engineering