

# Luisa A. Dempere

## **Education:**

Ph.D.	Materials Science and Engineering	University of Florida	1999
M.S.	Materials Science and Engineering	University of Florida	1996
Licentiate	Chemistry	Universidad de Oriente	1992

## **Academic and Administrative Experience, University of Florida:**

Director, Research Service Centers, Herbert Wertheim College of Engineering, 10/2014 – Present

Director, Particle Analysis Instrumentation Center, 07/2012 – 10/2014

Director, Major Analytical Instrumentation Center, 06/2000 – 10/2014

## **Service Activities (selected):**

- Physical Sciences Director, Microscopy Society of America (MSA), 2016-2018
- President Southeastern Microscopy Society (SEMS) 2016-2017.
- Journal of Materials Science and Nanotechnology - Editorial Board (2013-Present).
- Brookhaven National Lab, Center for Functional Nanomaterials, Electron Microscopy proposals review panel (2012-Present).
- Electronic Products Environmental Assessment Tool (EPEAT) Advisory Council (2012-2015).
- Chair of the University of Florida Presidential Council on Diversity, Office of the Vice President, Human Resources Services, Gainesville (August 2012 - 2014).

## **Honors and Awards (selected):**

- Patent: Synthesis of flexible lignin-based nanotubes, May 2015.
- Women and Sustainability: Honoring Prominent Women in our Community, Women's Leadership Council and Gators for a Sustainable Campus, 2009.
- Faculty Honorable Mention by the Engineering Academic Residential Programs, 2008.
- Teaching Excellence Dean's Letter of Appreciation, 2008.
- 2008 Prudential Davis Productivity Award, "Double productivity of the Major Analytical Instrumentation Center, University of Florida", Florida Taxwatch, the Florida Council of 100, and the state of Florida.
- 2008 Superior Accomplishment Award, University of Florida.

### **Publications and Presentations (selected):**

- Dempere, L.A., Manuel, M.; “Development of an Acquisition Instrumentation Program”, *Microscopy and Microanalysis 2018 (accepted)*, 2018.
- Dempere, L.A.; Thiyagarajah, M.; Moore, T.; “Recharge Center Rubric”, National Council of University Research Administrators – Financial Research Administration Conference, 2018.
- Chen, N.; Dempere, L.A., Tong, Z.; “Synthesis of pH-Responsive Lignin-Based Nanocapsules for Controlled Release of Hydrophobic Molecules; *ACS Sustainable Chem. Eng.*, 2016, 4 (10), pp 5204–5211.
- Kerstein, W., Ten, E., Dempere, L. and Vermerris, W. “Closing-Loops Producing Added-Value Products as a Cost-Reduction Strategy in the Operation of Biorefineries”, *Microscopy and Microanalysis*, 21 Supplement 3 (2015) pp 311-312.
- Ten, E., Tsui, Y., Dempere, L., and Vermerris, W., “Assessment of Cationic Lignin as a Chloride Ion Scavenging Additive in Cement”, *Microscopy and Microanalysis*, 20 Supplement S3, (2014) pp 1956-1957.
- R.A. Deist, B.J. Willenberg, and L.A. Dempere, "Inexpensive & Non-Disruptive Retrofitting of a PDP-11 Based Microprobe System with Modern Automation Software", *Microscopy and Microanalysis 2013*, v19, Supp. S2, 2013 pp. 810-811
- Q. Cheng, Z. Tong, L. Dempere, L. O. Ingram, L. Wang, J. Y. Zhu, “Disk Refining and Ultrasonication Treated Sugarcane Bagasse Residues for Poly(Vinyl Alcohol) Bio-composites”, *Journal of Polymers and the Environment* , v21, Issue 3, 2013, pp 648-657
- Hector M. Caicedo, Luisa A. Dempere, and Wilfred Vermerris, “Characterization of Lignin-based Nanotubes using Scanning and Transmission Electron Microscopy”, *Microscopy and Microanalysis* , v18 Supp. S2, 2012 pp. 256-257.
- Luisa A. Dempere, Wilfred Vermerris, and Hector M. Caicedo, “Characterization and Potential Applications of Lignin-Based Nanotubes and Nanowires”. *Proceedings of the Southeastern Microscopy Society Annual Meeting, Volume 32, 2012.*
- Hector M. Caicedo, Luisa A. Dempere, and Wilfred Vermerris, “Template-mediated synthesis and bio-functionalization of flexible lignin-based nanotubes and nanowires”, *Nanotechnology* 23 (2012) 105605 (12pp).
- B. Willenberg, R. Deist, and L. Dempere, “Old Dogs and New Tricks: Adapting Existing Analytical E-Beam Equipment for Automated Large-Area Quantitative Elemental Mapping of Chlorine in Cement, Mortar and Concrete”, *Microscopy and Microanalysis*, July 2011 17: pp. 1476-1477.
- Dempere, L.A. “Understanding Sustainability through Reverse Engineering”, *IEEE Technology and Society Magazine*, Volume 29, Issue 3, (2010) 37-44.

- Dempere, L.A. and Willenberg, B.J., "Overview of Microanalysis Techniques for the Characterization of Concrete and Cement Materials", *Microscopy and Microanalysis – Microscopy and Microanalysis*, Volume 16 (2010) pp. 944.
- Dickrell, P. and Dempere, L.A., "Development and Delivery of an Online Graduate Certificate in Materials Characterization for Working Professionals", *Materials Research Society Symposium Proceedings*, Vol. 1233 (2010) 1233-PP11-04.
- Dempere, L.A., "Incorporating Electron Microscopy and Microanalysis in the Engineering Curricula", *Microscopy and Microanalysis*, Volume 15, Supplement 2 (2009) pp. 1146-1147.
- Dempere, L.A., "Reverse Engineering as an Educational Tool for Sustainability", *Proceedings of the International Symposium on Sustainable Systems and Technology (ISSST)*, 2009.
- Dempere, L.A., "Opportunities and Challenges Growing a User Base in a Multi-User Facility", *Microscopy and Microanalysis*, Volume 14, Supplement 2 (2008) pp. 896-897.

**Recent Professional Development Activities: (Selected)**

- Strategic Communications Academy for UF Leaders and Scholars, 2017.
- HERS Institute, Bryn-Mawr College, Pennsylvania 2016.
- Business Skills for Core Directors, Darden School of Business, University of Virginia, Charlottesville, 2015.