

# **Luisa Amelia 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, 2014 – Present

Affiliate Faculty, Materials Science and Engineering, 2014 – Present

Affiliate Faculty, Environmental Engineering Sciences, 2012 - Present

Director, Particle Analysis Instrumentation Center, 2012 – 2014

Director, Major Analytical Instrumentation Center, 2000 – 2014

Faculty, Materials Science and Engineering Department, 2000 – 2014

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

- Member of the HWCOE IDEA Committee, 2020 – 2022
- President Southeastern Microscopy Society (SEMS), (2016-2017), (2021-2022)
- Physical Sciences Director, Microscopy Society of America (MSA), (2016-2018)
- Journal of Materials Science and Nanotechnology - Editorial Board (2013-2020)
- Brookhaven National Lab, Center for Functional Nanomaterials, Electron Microscopy proposals review panel (2012-2018)
- 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)

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

- Dempere, L., Schepker, K., Trachet, A. *“Multi-faceted Return on Investment for Academic Centers and Cores.”* Microscopy and Microanalysis 2023, *Accepted*.
- Dempere, L.A., *“Managing a Multi-User Mixed-Use Research Facility,”* University/ Government/ Industry Micro/Nanotechnology (UGIM) 2022 Symposium, Madison, WI.

- C. Bohorquez, K. Schepker, G.W. Scheiffele, Dempere, L.A., "A Synergistic Materials Characterization Approach for the Evaluation of Particles and Talc Minerals in Cosmetic Powders", *Microscopy and Microanalysis*, v25, Supp. S2, 2019, pp. 2034-2035.
- Dempere, L.A., Manuel, M.; "Development of an Acquisition Instrumentation Program," *Microscopy and Microanalysis Proceedings*, 24, S1, 2330-2331, 2018.
- Dempere, L.A.; Thiagarajah, 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, Ling C, Wang Y, Srivastava A, Dempere LA, Vermerris W (2014) "Lignin nanotubes as vehicles for gene delivery into human cells." *Biomacromolecules* 15: 327-338
- 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)**

- Diversity, Equity, and Inclusion in the Workplace Certificate, USF, 2021
- Advanced Leadership for Academics and Professionals (ALAP) Program, 2021
- Crucial Influence® Trainer certification, VitalSmarts, 2020
- Crucial Conversations® Trainer certification, VitalSmarts, 2019
- EWITS – Empowering Women in Technology Startups, 2018
- 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.