

# Agnes M. Padovani, Ph. D.

## Professor

Ph.D. Georgia Institute of Technology

Office: Edif. OF # 319

Mayagüez, PR 00680

(787) 832-4040, Ext. 6185

E-Mail: [agnes.padovani@upr.edu](mailto:agnes.padovani@upr.edu)

## Professional Experience

- Assistant Professor, Dept. of Eng. Sciences and Materials., University of P. R. – Mayagüez [Jan. 2006 to date]
- Senior Materials Engineer, Intel Corporation, Chandler, AZ [April 2002 – April 2004]
- Graduate Research & Teaching Assistant, Georgia Institute of Technology, Atlanta, GA [Sep. 1997 – March 2002]
- Summer Intern, Union Carbide Corporation, South Charleston, WV [June 1997 – Aug. 1997]
- Summer Intern, National Renewable Energy Laboratory (NREL), Golden, CO [June 1996 – Aug. 1996]

## Professional Preparation

- PhD, Chemical Engineering, Georgia Institute of Technology, 2002
- University of Puerto Rico at Mayagüez, Chemical Engineering, B.S. 1997
- Georgia Institute of Technology, Chemical Engineering, Ph.D. 2002

## Publications

- A.M. Padovani, L. Rhodes, S.A. Bidstrup Allen, and P.A. Kohl, “Chemically Bonded Porogens in Methylsilsesquioxane: I. Structure and Bonding,” *Journal of The Electrochemical Society*, 149 (12), F161-F170 (2002).
- A.M. Padovani, L. Riester, L. Rhodes, S.A. Bidstrup Allen, and P.A. Kohl, “Chemically Bonded Porogens in Methylsilsesquioxane: II. Electrical, Optical, and Mechanical Properties,” *Journal of The Electrochemical Society*, 149 (12), F171-F180 (2002).
- A.M. Padovani, L. Rhodes, L. Riester, G. Lohman, B. Tsuie, J. Conner, S.A. Bidstrup Allen, and P.A. Kohl, “Porous Methylsilsesquioxane for Low-k Dielectric Applications,” *Electrochemical and Solid-State Letters*, 4 (11), F25-F28 (2001).
- D. Bhusari, H.A. Reed, M. Wedlake, A.M. Padovani, S.A. Bidstrup Allen, and P.A. Kohl, “Fabrication of Air-Channel Structures for Microfluidic, Microelectromechanical and Microelectronic Applications,” *Journal of Microelectromechanical Systems*, 10 (3), 400-408 (2001).
- A. Padovani and D. Suleiman, “Simple Prediction of Limiting Activity Coefficients of Non-electrolytes in Water at 25°C,” *AIChE Journal*, 43 (12), 3271-3273 (1997).

## **Patents**

- “Light transparent substrate imprint tool with light blocking distal end”, Agnes M. Padovani, U.S. Patent # 7,168,936 B2, January 30, 2007.
- “Optical waveguides formed from nano air-gap inter-layer dielectric materials and methods of fabrication thereof”, Tony Mule, Paul Kohl, James D. Meindl, Agnes Padovani, Thomas K. Gaylord, Elias N. Glytsis, Sue Ann B. Allen, U.S. Patent # 6,947,651, September 20, 2005.
- “Stress-compensation layer systems for improved second level solder joint reliability”, Saikumar Jayaraman, Terry Sterrett, Connie Gettinger, Vijay Wakharkar, and Agnes Padovani, U.S. Patent Application # 20050068757, March 31, 2005.

## **Synergistic Activities**

- Coordinator of the Materials Science & Engineering (MSE) committee at the department-level and the Undergraduate Certificate in MSE.
- Member of the Engineering Academic Affairs Committee since 2008.