

John Pellegrino, Research Professor, Department of Mechanical Engineering, University of Colorado-Boulder, 427 UCB, Boulder, Colorado, 80309-0427.

PROFESSIONAL PREPARATION:

B.ChE. (Chemical Engineering) The City College of New York, NY, NY, 1973; M.S. Chemical Engineering, University of Colorado, Boulder, CO, 1979; Ph.D., Chemical Engineering, University of Colorado, Boulder, CO, 1983.

PRIOR POSITIONS AND APPOINTMENTS:

Vice-President of Engineering, **Santa Fe Science and Technology**, Santa Fe, NM, Apr 2001-Dec 2003 • Guest Researcher, National Institute of Standards and Technology, Boulder, CO, Apr 2001-Oct 2004 • Project Leader, Membrane Science and Technology, Physical and Chemical Properties Division, **National Institute of Standards and Technology**, Boulder, CO, Sep 1987-Apr 2001 • Research Associate and Adj. Professor, Environmental Engineering, **University of Colorado**, Boulder, CO, Apr 1998-Sep 2008 • Guest Scientist Material Science Division, **Los Alamos National Laboratory**, Los Alamos, NM, Oct 1993-Sep 1994 • Adj. Professor, Department of Chemical Engineering and Petroleum Refining, **Colorado School of Mines**, Golden, CO, 1991-1992 • Senior Research Engineer and Market Development Specialist, Engineered Nonwoven Structures Division, **E.I. duPont**, Inc., Wilmington, DE Sep 1983-Jun 1986 • Chemical Process Engineer, **Rohm & Haas Co.**, Philadelphia, PA, Jun 1973-Aug 1976.

RESEARCH INTERESTS:

Dr. Pellegrino's research interests include membrane science, engineering and technology; renewable energy, and process design and analysis. His current research efforts focus on membrane development and characterization; desalination and water treatment; biorefinery separations; biofuels (algae) production; and characterization of complex fluid mixtures.

SYNERGISTIC ACTIVITIES:

Co-developed/co-chaired the NIST/ATP focused program in *Selective Membrane Platforms* 1997-1998. Member of Intragovernmental Consortium on Desalination and Membrane Separation Research (1992-2001)

Member of Desalination Technology Roadmap Workshop Sandia-Reclamation 2002.

Researcher (and a founding industrial advisory board member from NIST) in the CU Center for Membrane Applied Science and Technology, 1992-present.

Teaches North American Membrane Society (NAMS) workshops on membrane characterization (eight times from 1995-2010).

Editorial board of Separation Science and Technology (since 1999).

Founding Director AIChE Separations Division and 1st Program Chair 1991-1997 and current Director 2006-2011.

Past-President (2004-05) of North American Membrane Society (member of Board of Directors 1997-2007) and Meeting Chair of 11th Annual Meeting of NAMS June 2000.

PUBLICATIONS: *Over 50 peer-reviewed journal articles, book chapters, and patents, including:*

Woods, J., J. Pellegrino, E. Kozubal, and J. Burch, Design and experimental characterization of a membrane-based absorption heat pump. *J. Membrane Sci.* (2010) accepted.

Woods, J., J. Pellegrino, and J. Burch, Generalized guidance for considering pore-size distribution in membrane distillation. *J. Membrane Sci.* (2010) accepted.

Wickramasinghe, S. R., E. D. Stump, D. L. Grzenia, S. M. Husson, and J. Pellegrino, Understanding virus filtration membrane performance. *J. Membrane Sci.* (2010) doi:10.1016/j.memsci.2010.09.002.

Woods, J., J. Pellegrino, E. Kozubal, S. Slayzak, and J. Burch, Upgrading low-temperature heat with a membrane exchanger heat pump. 337 *J. Membrane Sci.* (2009) 113-124.

Gutierrez-Padilla, M.G.D., A. Bielefeldt, S. Ovtchinnikov, J. Pellegrino, and J. Silverstein, Simple scanner-based image analysis for corrosion testing: concrete application, 209 *J. Mater. Process. Tech.* (2009) 51-57.

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- Lu, W., K. Henry, C. Turchi, and J. Pellegrino, Incorporating ionic liquid electrolytes into polymer gels for solid-state ultracapacitors, 155 *J. Electrochem. Soc.* (2008) A361-A367.
- Colyar, K.R., J. Pellegrino, K. Kadam, Fractionation of pre-hydrolysis products from lignocellulosic biomass by an ultrafiltration ceramic tubular membrane, 43 *Sep. Sci. Tech.* (2008) 447-476.
- Lu, W., K. Henry, C. Turchi, and J. Pellegrino, Ionic liquid-incorporated gel polymer electrolytes for ultracapacitors, in *ECS Transactions: Energy Systems for the Twenty-First Century: Opportunities for Applications of Solar, and Conversion Technologies*, J. Weidner (ed.), Vol. 2, Issue 28, 15-26 (2007).
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- Pellegrino, J., S. Wright, J. Ranville, and G. Amy, Predicting membrane flux decline from complex mixtures using flow-field flow fractionation measurements and semi-empirical theory, 51 *Water Sci. & Technol.*, (2005) 85-92.
- Amy, G., T.-U. Kim, J. Yoon, C. Bellona, J. Drewes, J. Pellegrino, and T. Heberer, Removal of micropollutants by NF/RO membranes, 5 *Water Sci. & Technol.: Water Supply*, (2005) 25-33.
- Norris, I., A. Fadeev, J. Pellegrino, and B.R. Mattes, Development of integrally-skinned asymmetric polyaniline hollow fibers for membrane applications, 153 *Synth. Metals* 57-60 (2005).
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- Benko, K., J. Pellegrino, L.W. Mason, and K. Price, Measurement of water permeation kinetics across reverse osmosis and nanofiltration membranes: apparatus development, 270 *J. Memb. Sci.* 187-195 (2006).
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- Pellegrino, J, The use of conducting polymers in membrane-based separations: a review and recent developments, in *Advanced Membrane Technology*, Li, N.N., Drioli, E., and Lipscomb, G.G. (eds), *Annals of the New York Academy of Sciences*, Vol. 984, New York, NY, 289-305, (2003).
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