

Prof. Young Moo Lee

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Education

Ph.D. Fiber & Polymer Science, North Carolina State University 1986

M.S. Polymer Engineering, Hanyang University 1979

B.S. Polymer Engineering, Hanyang University 1977

Research Interests

Polymer Materials for Membranes, Gas Separation, Fuel Cell, Water

Career

2015 – Present, *President* of Hanyang University

2013 – 2015, *Provost and Senior Vice President* of Hanyang University

2009 – 2013, *Chairman* of Energy Engineering Department, Hanyang University

2007 – Present, *Hanyang Distinguished Professor*, Hanyang University

1988 – 2010, *Professor*, Dept. of Chemical Engineering, Hanyang University

1987 – 1988, *Senior Polymer Chemist*, 3M Center, 3M Corporation, St.Paul, MN, U.S.A.

1986 – 1987, *Postdoc Research Associate*, Rensselaer Polytechnic Inst.

Recent Projects

Novel Membranes for CO₂ Capture, Thermally Rearranged Polymer Membranes, Membranes for Fuel Cell

Professional Activities & Awards

2015 – Present, Member, Board of Trustees, Hanyang Foundation

2012, Kyung Aham Award, Kyung Aham Education and Culture Foundation, Korea

2012 – Present, President of Aseanian Membrane Society

2010 – Present, *Visiting Chair Professor*, Chung Yuan University, Taiwan; Harbin Institute of Technology, China; Ulsan University

2004 – Present, *Editor* of the *Journal of Membrane Science*

2010, Prime Minister Award, National Grand Prize for Green Technology Award, Korea

2010, President of the Membrane Society of Korea

2004 – 2010, Executive Board Member of Board of Trustee, LG Chem, Ltd.

2007, Excellent Scientist Award, Ministry of Science and Technology

2005 – 2007, Editorial Advisory Board of the Industrial & Engineering Chemistry Research

2005 – Present, Fellow of the Korean Academy of Science and Technology, member of National Academy of Engineering of Korea, Korean Polymer Society and Korean Chemical Engineering Society

Author of about 360 scientific papers (citation>16,000, h-index=69), 120 patents, and 5 books

Selected Publications

1. *Nanocrack-regulated self-humidifying membranes*, *Nature*, 532, 480-483 (2016)
2. *Thermally Rearranged Polymer Membranes for Desalination*, *Energy & Environmental Science*, 9, 878-884 (2016)
3. *Rigid and Microporous Polymers for Gas Separation*, *Progress in Polymer Science*, 43, 1-32 (2015)
4. *Recent Progress in Fluoropolymers for Membranes*, *Progress in Polymer Science*, 39, 164-198 (2014)
5. *Polymer Rigidity Improves Microporous Membranes*, *Science*, 339, 284 (2013)
6. Morphological transformation during cross-linking of a highly sulfonated poly(phenylene sulfide)

- nitrile) random copolymer, *Energy & Environmental Science*, 5, 12, 9795-9802 (2012)
7. Enhancement of Proton Transport by Nanochannels in Comb-Shaped Copoly(arylene ether sulfone)s, *Angewandte Chemie-International Edition*, 50, 39, 9158-9161 (2011)
 8. Polymers with Cavities Tuned for Fast Selective Transport of Small Molecules and Ions, *Science* 318, 254 (2007)