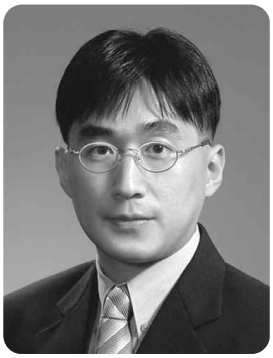

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Degree

- 1995 SungKyunKwan University, Chemistry (BSc)
- 1997 SungKyunKwan University, Chemistry (MSc)
- 2001 Cambridge University, Chemistry (PhD)

Experience

- 2004~present Incheon National University, Professor
- 2015~present Korean Membrane Society, Editor
- 2003~2004 Eastman Chemical Company, Senior Research Associate
- 2001~2003 MIT, Postdoctoral Research Associate

Major

- Organic Chemistry, Organic Material Synthesis, Polymer Synthesis

Teaching

- Organic Chemistry, Organic Material Synthesis, Advanced Organic Chemistry

Representative Research

- "Functional polymers based on myo- and scyllo-inositol", 2001
- "Self-amplifying wavelength responsive fluorescent polymers for fluoride detection" -Angew. Chem. Int. Ed. 2003, 42, 4803.

Researches

<Selected Publication>

- "Stereoisomers of an azine-linked donor?acceptor conjugated polymer: the impact of molecular conformation on electrical performance" - RSC Advances, 6, 50, 44272~44278.
- "PEG-imidazolium-functionalized 6FDA-durene polyimide as a novel polymeric membrane for enhanced CO2 separation" - RSC Advances, 6, 37, 31038~31091.
- "Alkyl bisimidazolium-mediated crosslinked comb-shaped polymers as highly conductive and stable anion exchange membranes" - RSC Advances, 6, 16168~16176.
- "Physically Cross-linked Polymer Binder Induced by Reversible Acid/ Base Interaction for High-Performance Silicon Composite Anodes" - ACS Applied Materials &Interfaces, 7, 42, 23545~23553.
- "High performance blend membranes based on sulfonated poly(arylene ether sulfone) and poly(p-benzimidazole) for PEMFC applications" - J. Ind. Eng Chem. 29, 104~111.
- "Novel piperazinium-mediated crosslinked polyimide membranes for high performance CO2 separation, - J. Membr. Sci. 487, 90~98.

Current Research

- Polymer Electrolyte Membranes for Fuel Cell Applications
- Polymer Membranes for CO2 Separation
- Polymer Binders for Li Battery Applications