

NANO KOREA 2020

July 1~3, KINTEX, Korea

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EDUCATION

Stanford University	Ph.D	Materials Science & Engineering	2005
Seoul National University	MS	Inorganic Materials Science & Engineering	1997
Seoul National University	BS	Inorganic Materials Science & Engineering	1995

PROFESSIONAL ACTIVITIES

- Head, Center for Energy Materials Research, KIST, Korea, January 2019 to Present.
- Head, High-temperature Energy Materials Center, KIST, Korea, March 2017 to December 2018.
- Researcher, Senior to Principal Researcher, KIST, Korea, March 2005 to Present.
- Professor, Graduate School of Energy and Environment (KU-KIST Green School), Korea University, November 2019 to Present.
- Professor, Nanomaterials Science & Engineering, KIST School, UST, March 2012 to Present.

AWARD AND HONORS

- KIST Young Fellow (2012-2015)
- Woman of the Year in Science and Technology in Korea, 2013
- Prime Minister Award, 2016
- Person of the Month, KIST, 2017
- 100 Superior Governmental R&D Results of 2017

MAIN SCIENTIFIC PUBLICATION

- Effect of secondary metal catalysts on butane internal steam reforming operation of thin-film solid oxide fuel cells at 500 - 600 °C, Appl. Cat. B, 2020
- Palladium incorporation at the anode of thin-film solid oxide fuel cells and its effect on direct utilization of butane fuel at 600 °C, Appl. Energy, 2019

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- High-Performance Protonic Ceramic Fuel Cells with 1 um Thick Y:Ba(Ce, Zr)O₃ Electrolytes, Adv. Energy Mater, 2018
- Demonstrating the potential of yttrium-doped barium zirconate electrolyte for high-performance fuel cells, Nat. Comm. 2017
- Impact of nanostructured anode on low-temperature performance of thin-film-based anode-supported solid oxide fuel cells, J. Power Sources, 2016

RESEARCH INTERESTS

- Thin-film and nanostructure-based low-temperature operating ceramic fuel cells, solid oxide fuel cell (SOFC) & protonic ceramic fuel cell (PCFC)