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EDUCATION

Ph.D.	Advanced Materials in Automotive Science, Kyushu University, Japan	2012
M.S.	Advanced Materials Science and Engineering, Korea University, Korea	2009
B.S.	Applied Materials Science and Engineering, Chungnam Nat'l University, Korea	2005

RESEARCH & WORK EXPERIENCE

Korea Institute of Energy Research (Daejeon, Korea)	Sep. 2016–current
Senior Researcher	
University of Birmingham (Birmingham, UK)	2014–2016
Research Fellow	
Kyushu University (Fukuoka, Japan)	2009–2014
Research Fellow	2012–2014
Graduate Research Assistant	2009–2012
LG. Philips LCD (Gumi, Korea)	2005–2007
Process Development Engineer	

AWARDS & SCHOLARSHIPS

Best Presentation Award, Materials Research Society of Japan (2014)
Presentation Award, Ceramic Society of Japan (2010)
Japan Ministry of Education, Culture, Sports, Science and Technology Scholarship (2010–2012)
Korea Institute of Energy Technology Evaluation and Planning Scholarship (2009–2010)

PUBLICATIONS (*selected*)

Bianco, M., Poitel, S., **Hong, J.-E.**, Yang, S., Wang, Z.-J., Willinger, M., Steinberger-Wilckens, R., Van herle, J., "Corrosion behaviour of nitrated ferritic stainless steels for use in solid oxide fuel cell devices" (2020) *Corrosion Science*, in press.

Lee, D.-Y., Mehran, M.T., Kim, J., Kim, S., Lee, S.-B., Song, R.-H., Ko, E.-Y., **Hong, J.-E.***, Huh, J.-Y.*, Lim, T.-H.*, "Scaling up syngas production with controllable H₂/CO ratio in a highly efficient, compact, and durable solid oxide coelectrolysis cell unit-bundle" (2020) **Applied Energy**, 257, 114036. ***Co-corresponding author**

Sarruf, B.J.M.* , **Hong, J.-E.***, Steinberger-Wilckens, R., de Miranda, P.E.V., "Influence of novel anode design on the performance and coke resistance towards methane directly-fed solid oxide fuel cells" (2020) **Ceramics International**, 46, 5368-5379. ***Co-corresponding author**

Bianco, M., Tallgren, J., **Hong, J.-E.**, Yang, S., Himanen, O., Mikkola, J., Van herle, J.,

Steinberger-Wilckens, R., "Ex-situ experimental benchmarking of solid oxide fuel cell metal interconnects" (2019) **Journal of Power Sources**, 437, 226900.

Hong, J.-E., Usman, M., Lee, S.-B., Song, R.-H., Lim, T.-H., "Thermally self-sustaining operation of tubular solid oxide fuel cells integrated with a hybrid partial oxidation reformer using propane" (2019) **Energy Conversion and Management**, 189, 132-142.

Masi, A., Bellusci, M., McPhail, S.J., Padella, F., Reale, P., **Hong, J.-E.**, Steinberger-Wilckens, R., Carlini, M., "The effect of chemical composition on high temperature behaviour of Fe and Cu doped Mn-Co spinels" (2017) **Ceramics International**, 43 (2), 2829-2835.

Hong, J.-E., Ida, S., Ishihara, T., "Decreased sintering temperature of anode-supported solid oxide fuel cells with La-doped CeO₂ and Sr- and Mg-doped LaGaO₃ films by Co addition" (2014) **Journal of Power Sources**, 259, pp. 282-288.

Hong, J.-E., Xie, J., Ida, S., Ishihara, T., "Increased power density of solid oxide fuel cells using LaGaO₃ film prepared by screen printing method with (Ba, La)CoO_{3-δ} and Pr_{1.9}(Ni, Cu, Ga)O_{4+δ} composite oxide cathode" (2014) **Journal of the Electrochemical Society**, 161, F1118-F1123.

Hong, J.-E., Ida, S., Ishihara, T., "Ce(Mn,Fe)O₂ as an effective interlayer for intermediate temperature SOFCs using doped LaGaO₃ films prepared by screen printing method" (2013) **Journal of the Electrochemical Society**, 160, pp. F375-F380.

Hong, J.-E., Inagaki, T., Ida, S., Ishihara, T., "Titania-added Ce_{0.6}La_{0.4}O_{2-δ} for the buffer layer of high-performance solid oxide fuel cells using doped lanthanum gallate electrolyte film" (2012) **Journal of the American Ceramic Society**, 95, pp. 3588-3596.