

Biography of In-Hyuck Song (宋仁赫)



- Title: Dr. (KIMS), Professor (UST)
- Birth date: October 31, 1966

CURRENT POSITION

- 1992 -Present: Principal Researcher, Ceramic Materials Division.

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- 2011- Present : Professor, University of Science & Technology (UST)

EDUCATION

- 1998-2003: KAIST, Korea (PhD) Materials Science and Engineering.
- 1990-1992: Korea University, Seoul, Korea (M.S.)
- 1986-1990: Korea University, Seoul, Korea (B.A.)

PROFESSIONAL EXPERIENCE

- 02/1992 - present: Principal Researcher, Korea Institute of Materials Science (KIMS)
- 03/2011 - present: Professor, University of Science & Technology (UST)
- 03/2021 - present: Journal Editor, Journal of the Korean Ceramic Society
- 03/2021- present: Associate Editor, Journal of Asian Ceramic Societies
- 03/2018 – 02/2021: Director of Powder & Ceramic Division, Korea Institute of Materials Science (KIMS)

- 02/2009 - 02/2015: Head of Engineering Ceramic Department, Korea Institute of Materials Science (KIMS)
- 03/2005 - 02/2007: Affiliate professor, Changwon National University (Ceramic Engineering Dept.)
- 11/2005 - 12/2005: Visiting Researcher, Toronto University, Canada
- 06/1999 - 08/1999: Visiting Researcher, MIT, USA

RECENT PUBLICATIONS (LAST 5 YEARS)

1. J.-H. Ha, S. Z. Abbas Bukhari, J. Lee, I.-H. Song “Preparation and characterisation of alumina based composite support layers” *Advances in Applied Ceramics* (2016) 1-7
2. Jang-Hoon Ha, Syed Zaighum Abbas Bukhari, Jongman Lee, In-Hyuck Song, Chanhyuk Park, “Preparation processes and characterizations of alumina-coated alumina support layers and alumina-coated natural material-based support layers for microfiltration” *Ceramics International* 42(2016)13796–13804
3. Rizwan Ahmad, Muhammad Shoaib Anwar, Jae Kim, In-Hyuck Song, Zaighum Abbas, Syed Ahmad Ali, Fahad Ali, Jamil Ahmad, Hasan Bin Awais, Mazhar Mehmood, “Porosity features and gas permeability analysis of bi-modal porous alumina and mullite for filtration applications” *Ceramics International* 42(2016)18711–18717
4. Hee-Jong Yeom, Su Chang Kim, Young-Wook Kim, In-Hyuck Song, “Processing of alumina-coated clay–diatomite composite membranes for oily wastewater treatment” *Ceramics International* 42(2016)5024–5035
5. Jongman Lee, Jang-Hoon Ha & In-Hyuck Song, “Improving the antifouling properties of ceramic membranes via chemical grafting of organosilanes” *SEPARATION SCIENCE AND TECHNOLOGY* 2016, VOL. 51, NO. 14, 2420–2428
6. Jang-Hoon Ha, Sujin Lee, Jae Ryung Choi, Jongman Lee, In-Hyuck Song, Seung Jun Lee, Jaeho Choi, “Development of a carbon-coated reticulated porous alumina material with tailored structural properties for potential radar-absorption applications” *Ceramics International* 43 (2017) 16924–16930
7. Jang-Hoon Ha, Sujin Lee, Syed Zaighum Abbas Bukhari, Jongman Lee, In-Hyuck Song, “The preparation and characterization of alumina-coated pyrophyllite diatomite composite support layers” *Ceramics International* 43 (2017) 1536–1542
8. In-Hyuck Song, Byung-Seo Bae, Jang-Hoon Ha, Jongman Lee, “Effect of hydraulic pressure on alumina coating on pore characteristics of flat-sheet ceramic membrane, *Ceramics International* 43 (2017) 10502–10507
9. Jang-Hoon Ha, Sujin Lee, Syed Zaighum Abbas Bukhari, Jae Ryung Choi, Jongman Lee, In-Hyuck Song, Seung Jun Lee, Jaeho Choi, “Preparation and characterization of alumina-coated silicon carbide supports” *Ceramics International* 43 (2017) 9481–9487
10. Syed Zaighum Abbas Bukhari, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, “Fabrication and optimization of a clay-bonded SiC flat tubular membrane support for microfiltration applications” *Ceramics International* 43 (2017) 7736–7742
11. Jongman Lee, Jang-Hoon Ha, In-Hyuck Song, “Enhanced fouling resistance of surface-modified alumina membranes by controlling humic acid and negatively charged-organosilane concentrations” *Desalination and Water Treatment* 88 (2017) 16–24

12. Su Chang Kim, Hee-Jong Yeom, Young-Wook Kim, In-Hyuck Song, Jang-Hoon Ha “Processing of alumina-coated glass-bonded silicon carbide membranes for oily wastewater treatment” *Int J Appl Ceram Technol.* 2017;14:692–702
13. Su Chang Kim, Young-Wook Kim, In-Hyuck Song “Processing and properties of glass-bonded silicon carbide membrane supports” *Journal of the European Ceramic Society* 37 (2017) 1225–1232
14. Jongman LEE, Jang-Hoon HA, In-Hyuck SONG and Dong Woo SHIN, “Enhanced fouling resistance of organosilane-grafted ceramic microfiltration membranes for water treatment” *Journal of the Ceramic Society of Japan* 125 [12] 899-905 2017
15. Fei Wang, Jongman Lee, Jang-Hoon Ha, In-Hyuck Song, “Surface modification of alumina membranes via a sol-gel process for antifouling properties” *Materials Letters* 191 (2017) 200–202
16. Syed Zaighum Abbas Bukhari, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, “Effect of different heat treatments on oxidation-bonded SiC membrane for water filtration”, *Ceramics International* 44 (2018) 14251–14257
17. Jang-Hoon HA, Sujin LEE, Syed Zaighum Abbas BUKHARI, Jongman LEE, In-Hyuck SONG, Seung Jun LEE and Jaeho CHOI, “Effects of preparation conditions on the membrane properties of alumina-coated silicon carbide supports” *Journal of the Ceramic Society of Japan* 126 [10] 1-10 2018
18. Syed Zaighum Abbas Bukhari, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, “Oxidation-bonded SiC membrane for microfiltration”, *Journal of the European Ceramic Society* 38 (2018) 1711–1719
19. Jang-Hoon Ha, Sujin Lee, Jae Ryung Choi, Jongman Lee, In-Hyuck Song, Tai-Joo Chung, “A self-setting particle-stabilized porous ceramic panel prepared from commercial cement and loaded with carbon for potential radar-absorbing applications”, *Processing and Application of Ceramics* 12 [1] (2018) 86–93
20. Hui-Ying Sheng, Young-Wook Kim, In-Hyuck Song, “Processing of silicon-derived silica-bonded silicon carbide membrane supports”, *Ceramics International* 45 (2019) 2161–2169
21. Jae Kim, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, “Effect of pore structure on gas permeability constants of porous alumina” *Ceramics International* 45 (2019) 5231–5239
22. Jae Kim, Jongman Lee, Jang-Hoon Ha, In-Hyuck Song, “Effect of silica on flexibility of yttria-stabilized zirconia nanofibers for developing water purification membranes”, *Ceramics International* 45 (2019) 17696–17704
23. Jang-Hoon Ha, Sujin Lee, Jae Ryung Choi, Jongman Lee, In-Hyuck Song, Tai-Joo Chung, “A cobalt-coated reticulated porous alumina for radar-absorption applications” *Journal of the Australian Ceramic Society*, 2019, <https://doi.org/10.1007/s41779-018-00303-5>
24. Jongman LEE, Jang-Hoon HA, In-Hyuck SONG and Jin-Woo PARK, “Effect of SiO₂ coating on alumina microfiltration membranes on flux performance in membrane fouling process”, *Journal of the Ceramic Society of Japan* 127 [1] 35-43 2019
25. Jongman Lee, Jang-Hoon Ha, In-Hyuck Song, Jin-Woo Park, “Facile surface modification of ceramic membranes using binary TiO₂/SiO₂ for achieving fouling resistance and photocatalytic degradation” *Journal of Sol-Gel Science and Technology*, 2019, <https://doi.org/10.1007/s10971-019-04972-x>
26. Sujin Lee, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, Se-Hun Kwon, “Preparation and Characterization of a Low-Cost and Natural Material-Based Reticulated Porous Diatomite-Kaolin Composite” *Appl. Sci.* 2020, 10, 2125; doi:10.3390/app10062125
27. Sujin Lee, Chae Young Lee, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, Se-Hun Kwon, “Effect of Processing Conditions on the Properties of Reticulated Porous Diatomite–Kaolin Composites” *Appl. Sci.* 2020, 10, 7297; doi:10.3390/app10207297

28. Gyoung-Deuk Kim, Young-Wook Kim, In-Hyuck Song, Kwang Joo Kim, "Effects of carbon and silicon on electrical, thermal, and mechanical properties of porous silicon carbide ceramics", *Ceramics International* 46 (2020) 15594–15603
29. Seil Kim, Gwangryeol Park, Hong-Ju Ahn, Bung Uk Yoo, In-Hyuck Song, Kyu-Hwan Lee, Kwang Ho Kim, Jae-Hong Lim, and Joo-Yul Lee, "Facial Fabrication and Characterization of Novel Ag/AgCl Chloride Ion Sensor Based on Gel-Type Electrolyte", *Frontiers in Chemistry*, 2020, Volume 8, Article 574986.
30. Rohit Malik, Young-Wook Kim, In-Hyuck Song, "High interfacial thermal resistance induced low thermal conductivity in porous SiC-SiO₂ composites with hierarchical porosity" *Journal of the European Ceramic Society* 40 (2020) 594–602
31. S. Lee, J.-H. Ha, J. Lee, I.-H. Song, B. Park, S. B. Lee, S.-H. Kwon, "Preparation and characterization of Reticulated Porous Mullite Coated with Radar-Absorbing Material" *J. Ceram. Sci. Technol.*, 11 [1] 62-72 (2020)
32. Jin Young Huh, Jongman Lee, Syed Zaighum Abbas Bukhari, Jang-Hoon Ha, In-Hyuck Song, "Development of TiO₂-coated YSZ/silica nanofiber membranes with excellent photocatalytic degradation ability for water purification" *Scientific Reports*, (2020) 10:17811.
33. Shynar Kultayeva, Young-Wook Kim, In-Hyuck Song "Effects of dopants on electrical, thermal, and mechanical properties of porous SiC ceramics", *Journal of the European Ceramic Society* 41 (2021) 4006–4015
34. Syed Zaighum Abbas Bukhari, Muhammad Shoaib Anwar, Danyal Naseer, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, Effect of graphite and Mn₃O₄ on clay-bonded SiC ceramics for the production of electrically conductive heatable filter, *Ceramics International*, <https://doi.org/10.1016/j.ceramint.2021.05.019>
35. Syed Zaighum Abbas Bukhari, Jang-Hoon Ha, Jongman Lee and In-Hyuck Song, Expansionless oxidation-bonded SiC microfiltration membrane by controlling the oxidation of SiC particle mixtures, *Journal of Asian Ceramic Societies*, 10.1080/21870764.2021.1937855
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40. Chae-Young Lee, Sujin Lee, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song, and Kyoung-Seok Moon, Effect of the Zirconia Particle Size on the Compressive Strength of Reticulated Porous Zirconia-Toughened Alumina, *Appl. Sci.* 2022, 12, 2316. <https://doi.org/10.3390/app12052316>

41. Sujin Lee, Chae-Young Lee, Jang-Hoon Ha, Jongman Lee, In-Hyuck Song and Se-Hun Kwon, The Effects of Process Conditions on Improvement of the Compressive Strengths of Reticulated Porous Zirconia, *Appl. Sci.* 2022, 12, 1591. <https://doi.org/10.3390/app12031591>
42. Danyal Naseer, Jang-Hoon Ha, Jongman Lee, Chanhyuk Park, In-Hyuck Song, Effect of the peptization process and thermal treatment on the sol-gel preparation of mesoporous α -alumina membranes, 2022, *Membranes* 2022, 12, 313. <https://doi.org/10.3390/membranes12030313>
43. Shynar Kultayeva, Young-Wook Kim, In-Hyuck Song, Influence of sintering atmosphere and BN additives on microstructure and properties of porous SiC ceramics, *Journal of the European Ceramic Society* 41 (2021) 6925–6933
44. Shynar Kultayeva, Young-Wook Kim, In-Hyuck Song, Effects of dopants on electrical, thermal, and mechanical properties of porous SiC ceramics, *Journal of the European Ceramic Society* 41 (2021) 4006–4015
45. Minju Cha, Chanhee Boo, In-Hyuck Song, Chanhyuk Park, Investigating the potential of ammonium retention by graphene oxide ceramic nanofiltration membranes for the treatment of semiconductor wastewater, *Chemosphere* 286 (2022) 131745