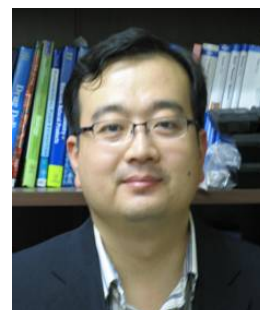


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■ Education

- 03.1988 – 02.1992 Seoul National University
(Bachelor of Science (B. Sc.), Chemistry)
- 03.1992 – 08.1995 Graduate School of Seoul National University
(Master of Science (M. Sc.), Chemistry)
- 08.1996 – 08.1999 Saarland University (Dr.rer.nat, Chemistry) / Fraunhofer Institute for
Biomedical Engineering (FhG-IBMT)

■ Carriers

- 08.1996 – 08.1999 Researcher in the department of Microsystem and sensor system /
Fraunhofer Institute for Biomedical Engineering (FhG-IBMT)
- 08.1999 – 02. 2007 Team leader in Human Engineering group of KIST-Europe, Germany
- 03.2007 – Present Assistant (2007-2011) / Associate professor (2011-2016) / Professor
(2016-) Dept. Materials Science & Engineering, Yonsei University

■ Academic Activities

- 01.2017 – Present Editor-in-Chief, BioChip Journal (SCIE)
- 01.2017 – Present Editor-in-Chief, Journal of the Korean Ceramic Society (ESCI)
- 01.2017 – Present Associate Editor, Journal of Asian Ceramic Societies (SCIE)

■ Research Fields

- Biosensors based on nanomaterials for medical diagnosis
- MALDI-TOF mass spectrometry based on nanomaterials
- Protein engineering with surface display technology

■ Recent Publications (2018-present)

1. Ji-Hong Bong, Tae-Hun Kim, Hyun-Woo Song, Min-Jung Kang, Joachim Jose, Jae-Chul Pyun, Refolding of autodisplayed anti-NEF scFv through oxidation with glutathione for immunosensor, *Biosensors and Bioelectronics* 102 (2018) 600-609.
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3. Min Park, J.C.Pyun, J.Jose, Orientation and density control of proteins on solid matters by outer membrane coating: Analytical and diagnostic applications, *Journal of Pharmaceutical and Biomedical Analysis* 147 (2018) 174-184.
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5. Ga-Yeon Lee, Jun-Hee Park, Young Wook Chang, Sungbo Cho, Min-Jung Kang, and Jae-Chul Pyun, Chronoamperometry-based redox cycling for application to immunoassays, *ACS Sensors* 3 (2018) 106-112.
6. Yong Jae Kim, JaeHyoung Yun, Seon Il Kim, Hyeonaug Hong, Jun-Hee Park, Jae-Chul Pyun, WonHyoung Ryu, Scalable long-term extraction of photosynthetic electrons by simple sandwiching of nanoelectrode array with densely-packed algal cell film, *Biosensors and Bioelectronics* 117 (2018) 15-22.
7. Mira Kim, Jong-Min Park, Joo-Yoon Noh, Jo-Il Kim, Min-Jung Kang and Jae-Chul Pyun, Optimization of hydrothermal process for the fabrication of TiO₂ nanowire matrix chip for LDI mass spectrometry, *International Journal of Nanotechnology* 15 (2018) 598-610.
8. Hong-Rae Kim, Ju-Hee Im, Byoung-Gi An, Young Wook Chang, Min-Jung Kang, Jae-Gwan Park, Jae-Chul Pyun, Reproducibility in photosensitivity of in-situ synthesized cadmium sulfide nanowire photosensors, *International Journal of Nanotechnology* 15 (2018) 505-517.
9. Ga-Yeon Lee, Jun-Hee Park, Young Wook Chang, Min-Jung Kang, Sungbo Cho, Jae-Chul Pyun, Capacitive biosensor based on vertically paired electrode with controlled parasitic capacitance, *Sensors and Actuators B* 273 (2018) 384-392.
10. Mira Kim, Jong-Min Park, Joo-Yoon Noh, Min-Jung Kang, and Jae-Chul Pyun, Peptide sequencing with MALDI-TOF mass spectrometry based on TiO₂ nanowires from wet-corrosion synthesis, *ACS Applied Materials and Interfaces* 10 (2018) 33790-33802.

11. Yong Jae Kim, JaeHyoung Yun, Seon Il Kim, Hyeonaug Hong, Jun-Hee Park, Jae-Chul Pyun, WonHyoung Ryu, Scalable long-term extraction of photosynthetic electrons by simple sandwiching of nanoelectrode array with densely-packed algal cell film, *Biosensors and Bioelectronics* 117 (2018) 15-22.
12. 박종민, 조주윤, 김문주, 변재철, 나노물질을 이용한 질량분석 기술 개발동향, *세라미스트지* 21 (2018) 249-269.
13. Bo Jin, Ga-Yeon Lee, ChanOh Park, Donghoon Kim, Wonyeong Choi, Jae-Woo Yoo, Jae-Chul Pyun, Jeong-Soo Lee, Electrical Characteristics and pH Response of Parylene-H Sensing Membrane in Si-Nanonet Ion-Sensitive Field-Effect Transistor, *Sensors* 18 (2018) 3892-3899.
14. Daseul Jeon, Jae-Chul Pyun, Joachim Jose and Min Park, A Regenerative Immunoaffinity Layer Based on the Outer Membrane of Z-Domains Autodisplaying E. coli for Immunoassays and Immunosensors, *Sensors* 18 (2018) 4030-4041.
15. Moon-Ju Kim, Tae Gyeong Yun, Jaeyong Jung, Jong-Min Park, Joo-Yoon Noa, Jungsik Song, Min-Jung Kang, Jae-Chul Pyun, Nanostructured TiO₂ materials for the analysis of crystals from gout and pseudo-gout patients using laser desorption/ionization time-of-flight (LDI-ToF) mass spectrometry, *Analytical Chemistry* 91 (2019) 11283-11290.
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17. Jong-Min Park, Joo-Yoon Noh, Moon-Ju Kim, Tae Gyeong Yun, Min-Jung Kang, Sang-Guk Lee, Kyung Soo Chung, Ku Nam Su, Sohee Yoon, Moo Suk Park, Jae-Chul Pyun, Medical diagnosis of sepsis by using a parylene-matrix chip, *Analytical Chemistry* 91 (2019) 14719-14727.
18. Ga-Yeon Lee, Ji-Hong Bong, Gu Yoo, Ji Yun Kim, Min Park, Min-Jung Kang, Joachim Jose, Jae-Chul Pyun, Thermophoretic diagnosis of autoimmune diseases based on Escherichia coli with autodisplayed autoantigens, *Analytica Chimica Acta* 1055 (2019) 106-114.
19. Ji-Yun Kim, Ji-Hong Bong, Ga-Yeon Lee, Min-Jung Kang, and Jae-Chul Pyun, Separation of anti-lipopolysaccharide (LPS) antibodies from human serum for fluorescence immunoassays of *E. coli*, *Biosensors and Bioelectronics* 126 (2019) 518-528.
20. Jun-Hee Park, Zhiquan Song, Ga-Yeon Lee, Min-Jung Kang, and Jae-Chul Pyun, Highly N-doped silicon carbide (SiC) electrode for enzyme-linked immunosorbent assay (ELISA), *Analytica Chimica Acta* 1073 (2019) 30-38.

21. Chanyong Park, Hong-Rae Kim, Soo-Kyung Kim, In Kyung Jeong, Jae-Chul Pyun, and Sungsu Park, Three-Dimensional Paper-Based Microfluidic Analytical Devices Integrated with a Plasma Separation Membrane for the Detection of Biomarkers in Whole Blood, *ACS Applied Materials and Interfaces* 11 (2019) 36428-34434.
22. Binh Nguyen, Jae-Chul Pyun, Sang-Guk Lee, Min-Jung Kang, Identification of new binding proteins of focal adhesion kinase using immunoprecipitation and mass spectrometry. *Scientific Reports* 9 (2019) 12908-12922.
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