

Prof. Hsiharng Yang, PhD

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Education

PhD, Institute for Micromanufacturing, Louisiana Tech University, USA in 1998

M.S., Department of Mechanical Engineering, Louisiana Tech University, USA in 1995

B.S., Department of Mechanical Engineering, Louisiana Tech University, USA in 1993

Experience

Deputy Vice President of Office for International Affairs, National Chung Hsing University, since 2019 –

Distinguished Professor, National Chung Hsing University, 2015.08~2017.07

Distinguished Professor, National Chung Hsing University, 2011.08~2013.07

Director, Graduate Institute of Precision Engineering, National Chung Hsing University, 2009.08~2011.07

Adjunct Consultant, Shen-Yu Company, Taiwan, 2007.12~2008.05

Adjunct Consultant, CeTech Co., Ltd., Taiwan 2007.11~2009.07

Professor, Graduate Institute of Precision Engineering, National Chung Hsing University, 2006.08~

Visiting Professor, School of Electrical Engineering, Georgia Institute of Technology, USA, 2005.06~08

Division Chief, Service and Promotion of Center of Nanoscience and Nanotechnology, 2004.02~2005.07

Associate Professor, Graduate Institute of Precision Engineering, National Chung Hsing University,
2003.08~2006.07

Assistant Professor, Graduate Institute of Precision Engineering, National Chung Hsing University,
2000.08~2003.07

Assistant Professor, Department of Automation Engineering, Fu-Hsing Institute of Technology, I-Lan,
Taiwan, 1999.09~2000.07

Researcher, Machinery Industry Research Laboratory, Industrial Technology Research Institute, Hsinchu,
Taiwan, 1998.08~1999.08

Research interests

Micro/Nano machining, hydrogen fuel cell, glucose oxidase bio-fuel cell, anion exchange membrane fuel cell, green energy technology

Honors & Awards

Lifelong Distinguished Professor, National Chung Hsing University, since 2020.09 –

Best conference paper of fuel cell group, 14th National Hydrogen and Fuel Cell Conference, 2019.10.19

Advising thesis competition award of Kuan-Hao Chen, College of Engineering, 2019.06.13

Best conference paper award, 2018 International Conference on Advanced Manufacturing (IEEE ICAM),
2018.11.16-18

Industrial and Academic cooperation award, College of Engineering, 2017.12.27

Best poster paper award, 23rd National Computational Fluidic Mechanics Conference, 2016.08.18

Honorary Distinguished Professor, National Chung Hsing University, 2015.11 -

Publications (within 5 years)

International journal papers

1. Kean Long Lim*, Chun Yik Wong, Wai Yin Wong, Kee Shyuan Loh, Sarala Selambakkannu, Nor Azilah Fatimah Othman and Hsiharng Yang *, “Radiation grafted anion exchange membrane for fuel cell and electrolyzer applications: a mini review,” *Membranes*, 2021 (SCI) (MOST-108-3116-F-005-002) under revision.
2. Nabila A. Karim*, Muhammad Syafiq Alias, Hsiharng Yang*, “Recent developments for the application of 3D structured material nickel foam and graphene foam in Direct Liquid Fuel Cells and Electrolyzer,”

Catalysts, vol. 11,279, 31 pages, 2021. <https://doi.org/10.3390/catal11020279>, (SCI) (MOST-108-2221-F-005-026)

3. Kazi Rumanna Rahman, Kuan Ying Kok, Wai Yin Wong, Hsiharng Yang and Kean Long Lim, " Effect of iron loading on the catalytic activity of Fe/N-doped reduced graphene oxide catalysts via irradiation," *Applied Sciences*, 2021, 11, 205, 10 pages, <https://doi.org/10.3390/app11010205>, (SCI) (MOST-108-3116-F-005-002)
4. Van Men Truong*, Ngoc Bich Duong and Hsiharng Yang*, "Comparison of carbon supports in anion exchange membrane fuel cells," *Materials*, Vol. 13, 5370, 2020, <http://dx.doi.org/10.3390/ma13235370>, (SCI) (MOST-108-3116-F-005-002)
5. Ngoc Bich Duong, Van Men Truong, Yi-Shiuan Li , Chih-Liang Wang, Hsiharng Yang, " Improving the immobilization of glucose oxidase on carbon cloth via a hybrid approach of cross-linked chitosan/TPP matrices with Na⁺ polymers for high-performance self-pumping enzyme-based biofuel cells," *Energy & Fuels* 34 (8), 10050-10058, 2020. (SCI)
6. Van Men Truong, Julian Richard Tolchard, Jørgen Svendby, Moidhily Manikandan, Hamish Andrew Miller, Svein Sunde *, Hsiharng Yang *, Dario R. Dekel *, Alejandro Oyarce Barnett*, "Platinum and platinum group metal-free catalysts for anion exchange membrane fuel cells," *Energies* 2020, 13, 582; doi:10.3390/en13030582. (SCI)
7. Van Men Truong, Ngoc Bich Duong, Chih-Liang Wang*, Hsiharng Yang*, " Effects of cell temperature and reactant humidification on anion exchange membrane fuel cells," *Materials*, 12(13), 2048, 1-11, 2019. (SCI)
8. Van Men Truong, Mingkun Yang, Hsiharng Yang*, "Functionalized carbon black supported silver (Ag/C) catalysts in cathode electrode for alkaline anion exchange membrane fuel cells," *International Journal of Precision Engineering and Manufacturing-Green Technology* , vol. 6, no. 4, pp. 711-721, August, 2019. (SCI)
9. Ngoc Bich Duong, Chih-Liang Wang*, Li Zhen Huang, Wan Ting Fang, Hsiharng Yang*, " Development of a facile and low-cost chitosan-modified carbon cloth for self-pumping efficient enzymatic biofuel cells," *Journal of Power Sources*, 429, pp. 111-119, 2019. (SCI)
10. Van Men Truong, Chih-Liang Wang*, Mingkun Yang, Hsiharng Yang*, "Effect of tunable hydrophobic level in the gas diffusion substrate and microporous layer on anion exchange membrane fuel cells," *Journal of Power Sources*, 402, pp. 301-310, 2018. (SCI)
11. Van Men Truong, Chih-Wei Yang, Hsiharng Yang*, "Carbon black and multi-walled carbon nanotube supported cobalt for anion exchange membrane fuel cell," *Journal of Technology Innovations in Renewable Energy* 2018, 7, 1-6 (open access) <https://doi.org/10.6000/1929-6002.2018.07.01>
12. Ngoc Bich Duong, Sheng-Li You, Li- Zhen Huang and Hsiharng Yang*, "Carbon nanotubes modified carbon cloth cathode electrode for self-pumping enzymatic biofuel cell," *Journal of Renewable Energy*, vol. 2018, Article ID 8748731, 8 pages, 2018. <https://doi.org/10.1155/2018/8748731/>
13. L.-Z. Huang, Ngoc Bich Duong, Jhang H. Wang, Hsiharng Yang*, "Polyethyleneimine modified carbon cloth anode for self-pumping enzymatic glucose biofuel cell," *Journal of Renewable Energy*, 2018, Article ID 4638254, 7 pages, <https://doi.org/10.1155/2018/4638254>.
14. L.-Z. Huang, Y.-T. Chu, H. Yang*, " Erythrocyte separation using gravitational field flow effect," *Journal of Biomedical Science and Engineering*, 10, pp. 232-242, 2017.
15. Y.-F. Tsai, C.-J. Shieh, H. Yang*, " Capillary force pumping fluid for glucose oxidase enzymatic fuel cells," *Microsystem Technologies*, vol. 23, pp.3927-3935, 2017(SCI) (MOST 103-2221-E-005-087). DOI: 10.1007/s00542-015-2728-8
16. T.-H. Lin*, C.-K. Chao, H. Yang, " Fabrication of a micro-tip array mold using a micro-lens mask with proximity printing," *Microsystem Technologies*, vol. 22 (2), pp. 413-418, February 2016(SCI) DOI: 10.1007/s00542-015-2413-y.