

五、論文著述：楊錫杭

(A) 期刊論文

1. Facheng Su, Hsiharng Yang*, Wenchieh Wu and Yukai Chen, "An electrolyte life indicator for plasma electrolytic polishing optimization," *Applied Sciences*, 2022, 12, 8594. <https://doi.org/10.3390/app12178594> (SCI)
2. Syed Shaheen Shah, Hsiharng Yang, * Muhammad Ashraf, Mohammed Ameen Ahmed Qasem, Abbas Saeed Hakeem, Md. Abdul Aziz*, "Preparation of highly stable and electrochemically active three-dimensional interconnected graphene frameworks from jute sticks," *Chemistry – An Asian Journal*, 2022, e20220057, p.1-12, <https://doi.org/10.1002/asia.202200567> (SCI)
3. Zelalem Gudeta Abdi, Jyh-Chien Chen*, Hsiharng Yang, Hsuan-Hung Yu, "Synthesis of ionic polybenzimidazoles with broad ion exchange capacity range for anion exchange membrane fuel cell application," *Journal of Polymer Science*, 2021. <https://doi.org/10.1002/pol.20210409>
4. Nabila A. Karim *, Hsiharng Yang *, "Mini-review: Recent technologies of electrode and system in the Enzymatic Biofuel Cell (EBFC)," *Applied Sciences*, 11, 5179, 29 pages, 2021. (SCI) <https://doi.org/10.3390/app11115197>
5. Kean Long Lim *, Chun Yik Wong, Wai Yin Wong, Kee Shyuan Loh, Sarala Selambakkannu, Nor Azilla Fatimah Othman, Hsiharng Yang *, "Radiation grafted anion exchange membrane for fuel cell and electrolyzer applications: a mini review," *Membranes*, 2021, 11(6), 397, 21 pages; <https://doi.org/10.3390/membranes11060397> (SCI)
6. Van Men Troung, Ngoc Bich Duong, Hsiharng Yang, "Effect of gas diffusion layer thickness on the performance of anion exchange membrane fuel cells," *Processes* 2021, 9, 718. 10 Pages, <https://doi.org/10.3390/pr9040718> (SCI)(MOST-108-2221-E-005-027 and MOST-108-3116-F-005-002)
7. 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, 38 pages, 2021. <https://doi.org/10.3390/catal11020279>, (SCI) (MOST-108-2221-F-005-026)
8. 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)
9. Van Men Truong*, Ngoc Bich Duong and Hsiharng Yang*, "Comparison of carbon supports in anion exchange membrane fuel cells," *Materials* 2020, Vol. 13, 5370, <http://dx.doi.org/10.3390/ma13235370>, (SCI) (MOST-108-3116-F-005-002)
10. 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* 2020 34 (8), 10050-10058. (SCI) (MOST-108-2221-F-005-026)
11. Van Men Truong, Julian Richard Tolchard, Jørgen Svendby, Maidhily 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)(MOST105-2923-M-005-001-MY3)
12. 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,

- 2048, 1-11, 2019. (SCI)(MOST105-2923-M-005-001-MY3)
13. 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)(MOST105-2923-M-005-001-MY3)
 14. 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) (MOST-106-2221-E-005-074) (MOST105-2923-M-005-001-MY3)
 15. 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) (MOST105-2923-M-005-001-MY3)
 16. 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>
 17. 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/>
 18. 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>.
 19. 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.
 20. 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
 21. 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.
 22. T.-Y. Chang, C.-H. Hung, Z.-J. Lian, H. Yang*, " Using proximity exposure to produce asymmetrical lens for light control films," *Microsystem Technologies*, 21, pp. 1893–1901, 2015(SCI) (NSC102-2221-E-005-033)
 23. S.Y- Hung, T.-Y. Chang, M.-H. Shen, H. Yang, " Tilted microlens fabrication method using two photoresists with different melting temperatures," *Journal of Micromechanics and Microengineering*, vol. 24, pp. 25013-25023, 2014 (SCI) (NSC-100-2221-E-252-009-MY3).
 24. Z.-J. Lian, S.-Y. Hung*, M.-H. Shen, H. Yang, " Rapid fabrication of semiellipsoid microlens using thermal reflow with two different photoresists," *Microelectronics engineering*, vol. 115, pp. 46-50, 2014 (NSC-100-2221-E-252-009-MY3). (SCI)
 25. C.-H. Kuo, W.-H. Huang, C.-K. Lee, Y.-C. Liu, C.-M. Chang, H. Yang* and C.-J. Shieh*, "Biofuel cells composed by using glucose oxidase on chitosan coated carbon fiber cloth," *International Journal of Electrochemical Science*, vol. 8, no. 7, pp. 9242-9255, 2013 (NSC-101-2221-E-005-039), (SCI).
 26. M.-Y. Shen, T.-Y. Chang, T.-H. Hsieh, Y.-L. Li, C.-L. Chiang, H. Yang, and M.-C. Yip*, " Mechanical properties and tensile fatigue of graphene nanoplatelets reinforced polymer nanocomposites," *Journal of Nanomaterials*, vol. 2013, Article ID 565401, 9 pages, 2013. doi:[10.1155/2013/565401](https://doi.org/10.1155/2013/565401)

27. W. Liu, S. Liu, H. Yang, Y. Wu*, " Configuration optimization analysis of ultrasonic spray nozzle modules," *Disaster Advances*, vol. 6, no. 13, pp. 54-64, Dec. 2013. (SCI)
28. W. Liu, G.-Y. Lin, H. Yang*, "A study of the simulation of a light trapping module for increasing the absorption efficiency of solar cells," *Applied Mechanics and Materials*, vol. 437, pp. 198-201, 2013.
29. T.-H. Lin*, H. Yang, C.-K. Chao, H.-C. Shui, "New dual-curvature microlens array with a high fill-factor for organic light emitting diode modules," *Optics Communications*, vol. 304, pp. 123-128, 2013. (NSC-100-2218-E-011-016)
30. T.-Y. Chang, C.-H. Hung, P.-S. Chang, M.-H. Yeh, H. Yang*, " Asymmetric focusing microlens array fabricated using off-axis lithography," *Microsystem Technologies*, vol. 19, pp. 861-869, 2013, DOI: 10.1007/s00542-013-1745-8. (NSC-100-2218-E-011-016)
31. C.-H. Hung, C.-H. Chiu, S.-P. Wang, I-L. Chiang, H. Yang*, " Ultra thin gas diffusion layer development for PEMFC," *International Journal of Hydrogen Energy*, Vol. 37, no. 17, pp. 12805-12812, 2012 (NSC -99-2221-E-005-073) (SCI). IF 4.057
32. C.-H. Hung, S.-Y. Hung*, M.-H. Shen and H. Yang, "Semiellipsoid microlens fabrication method using the lift-off and alignment exposure processes," *Journal of Micromechanics and Microengineering*, 22(10), pp. 105020-30, 2012. (NSC-100-2221-E-252-009-MY3)
33. C.-H. Hung, S.-Y. Hung*, M.-H. Shen and H. Yang, "Semi-ellipsoid microlens fabrication method using UV proximity printing," *Applied Optics*, Vol. 51, no.8, 1122-1130, 2012 (NSC 100-2221-E-252-009-MY3)(SCI). IF 1.707
34. T.-H. Tsai, H. Yang*, R. Chein, M.-S. Yeh, "Two-dimensional simulations of ion concentration distribution in microstructural electroforming," *International Journal of Advanced Manufacturing Technology*, Vol. 57, Issue 5, pp. 639-646, 2011 (NSC96-2221-E-005-068-MY3) (SCI). IF 1.071
35. T.-H. Lin, H. Yang*, C.-K. Chao, S.-Y. Hung, J.-S. Hsu, "New high fill-factor dual-curvature microlens array fabrication using UV proximity printing," *Microsystem Technologies*, vol. 17, 601-607, 2011 (NSC96-2221-E-005-068-MY3) (SCI). IF 1.071
36. H. Yang*, C.-H. Hung, S.-P. Wang, and I-L. Chiang, "Graphite felt with vapor grown carbon fibers as electrodes for vanadium redox flow batteries," *Rare Metals*, vol. 30, pp. 1-4, March 2011 (NSC98-3114-E-005-004)(SCI). IF 0.643
37. H. Yang*, H.-C. Tu, I.-L. Chiang, "Carbon cloth based on PAN carbon fiber practicability for PEMFC applications," *International Journal of Hydrogen Energy*, vol. 35, pp. 2791-2795, 2010 (NSC96-2221-E-005-068-MY3) (SCI). IF 4.057
38. C.-K. Chao*, J.-Y. Hu, S.-Y. Hung and H. Yang, "Theoretical prediction of fiber coupling for ellipsoidal microlens," *Journal of Mechanics*, Vol. 26, no. 1, pp. 29-36, March 2010 (SCI). IF 0.408
39. T.-H. Lin, H. Yang*, C.-K. Chao, M.-S.Yeh, "New fabrication method of micro-pyramidal vertical probe array for probe cards," *Microsystem Technologies*, Vol. 16, 1215-1220, 2010 (NSC96-2221-E005-069-MY3) (SCI).
40. R. Chein*, H. Yang, T.-H. Tsai and C. Lu, "Experimental study of heat sink performances using copper foams fabricated by electroforming," *Microsystem Technologies*, Vol. 16, 1157-1164, 2010(SCI).
41. F.-Y. Chang*, R.-H. Wang, H. Yang, Y.-H. Lin, T.-M. Chen, S.-J. Huang, "Flexible strain sensors fabricated with carbon nano-tube and carbon nano-fiber composite thin films," *Thin Solid Films*, vol. 518, 7343-7347, 2010 (SCI).
42. T.-H. Lin, H. Yang*, C.-K. Chao, S.-Y. Hung, "New high fill-factor triangular microlens array fabrication method using UV proximity printing," *Microsystem Technologies*, Vol.15, 1255-1261, 2009 (NSC96-2221-E005-069-MY3) (SCI).

43. R. F. Shyu*, H. Yang, J.-H. Lee, "Micro-electroforming metallic bipolar electrodes for mini-DMFC stacks," *Microsystem Technologies*, 15, 1265-1271, 2009(NSC95-2212-E-005-091) (SCI).
44. 黃俊貴, 林盈妃, 楊錫杭, “複合式變焦液態透鏡模組之研究,” *技術學刊*, vol. 24, no. 4, pp. 235-240, 2009.
45. H. Yang*, C.-Y. Yang, M.-S. Yeh, "Mniaturized variable-focus lens using liquid filling technique," *Microsystem Technologies*, vol.14, pp. 1067-1072, 2008 (SCI) (NSC 95-2221-E-005-091).
46. J.-Y. Hu, C.-P. Lin, S.-Y. Hung, H. Yang, C.-K. Chao, " Semi-ellipsoid microlens simulation and fabrication for enhancing optical fiber coupling efficiency," *Sensors and Actuators: A*, vol. 147, pp. 93-98, 2008 (SCI) (NSC95-2221-E-005-091).
47. C.-H. Lin, H. Yang*, F.-Y. Chang, S.-H. Chang, M.-T. Yen, "Fast patterning microstructures using inkjet printing conformal masks," *Microsystem Technologies* vol. 14, 1263-1267, 2008 (SCI) (NSC 95-2221-E-005-112).
48. T.-H. Lin, H. Yang*, R. F. Shyu, and C.-K. Chao, "New horizontal frustum optical waveguide fabrication using UV proximity printing," *Microsystem Technologies* vol.14, pp. 1035-1040, 2008 (SCI) (NSC95-2221-E-005-091).
49. R. F. Shyu and H. Yang*, "A promising thermal pressing used in fabricating microlens array," *International Journal of Advanced Manufacturing Technology*, vol. 36, pp. 53-59, 2008. (SCI)(NSC95-2212-E-005-091).
50. J.-C. Tsai*, M.-Y. Hsieh, H. Yang, "Diffraction effect in proximity printing of circular aperture array," *Key Engineering Materials*, vol. 364-366, pp. 955-960, 2008. (EI)(NSC 94-2212-E-005-002)
51. G.-J. Wang*, H.-T. Chen, H. Yang, "Fabrication of crystalline Indium Tin Oxide nanobasket electrode using aluminum anodic oxide template," *Japanese Journal of Applied Physics*, 47(7), pp. 5727-5729, 2008.(SCI)
52. C.-T. Pan, H. Yang*, M-K Wei, and F-Y Chang, " PET Polymer Ablation Using Excimer Laser for Nozzle Plate Applications," *Materials Science and Technology*, vol. 23, no. 8, pp. 980-986, 2007. (SCI) (NSC 94-2212-E110-015).
53. H. Yang*, C.-T. Lee, F.-Y. Chang, "Miniaturized fluorescence excitation platform with optical fiber for bio-detection chips," *Microsystem Technologies*, 13, pp. 1623-1628, 2007 (SCI) (NSC 94-2212-E-150-016)
54. C-T Pan*, H. Yang, M-K Wei, "248 nm Excimer laser drilling PI film for nozzle plate application," *International Journal of Advanced Manufacturing Technology*, 34, 889-897, 2007 (SCI) (NSC94-2212-E110-015).
55. T.-H. Lin, H. Yang* and C.-K. Chao, "Concave microlens array mold fabrication in photoresist using UV proximity printing," *Microsystem Technologies*, 13, pp. 1537-1543, 2007 (SCI) (NSC94-2212-E-005-016).
56. R. F. Shyu, H. Yang*, W.-R. Tsai and J.-C. Tsai, "Micro-ball lens array fabrication in photoresist using PTFE hydrophobic effect," *Microsystem Technologies*, 13, pp. 1601-1606, 2007 (SCI) (NSC 94-2212-E-150 -016).
57. S.-Y. Hung*, C. P. Lin, H. Yang, and Y.-P. Chang "Optimal design using thermal reflow and caulking for fabrication of gapless microlens array mold inserts," *Optical Engineering*, 46(4), 043402-1~8, 2007.(SCI) (NSC95-2221-E-252-012).
58. T.-H. Lin, S.-Y. Hung*, H. Yang and C.-K. Chao, "Fabrication of a microlens array electroformed mold with low roughness and high hardness," *Journal of Micromechanics and Microengineering*, 17, 419-425, 2007 (SCI) (95-2221-E-252-012).
59. S.-Y. Hung*, S. N. Chen, C. P. Lin and H. Yang, "The robust design for gapless microlens array fab

- rication using the incomplete developing and thermal reflow process," *Microwave and Optical Technology Letters*, vol. 49, no. 1, pp. 23-29, 2007. (SCI) (NSC94-2212-E-252-006)
60. H. Yang*, C.-C. Wu, W.-L. Hsueh, "Bonding strength measurement of electroforming porous copper for heat sinks," *Journal of the Chinese Society of Mechanical Engineers*, Vol. 27, no. 5, pp. 611-616, 2006. (EI)(NSC94-2212-E-005-016)
 61. H. Yang*, R. F. Shyu, J.-W. Huang, "New production method of convex microlens arrays for integrated fluorescence microfluidic detection systems," *Microsystem Technologies*, vol. 12, pp. 907-912, 2006. (SCI) (NSC93-2212-E-005-006).
 62. G.-J. Wang*, J. H. Chang and H. Yang, "Triplex-Pumping CD-Like Microfluidic Platform with Parabolic Microchannels," *Microsystem Technologies*, vol. 12, pp. 899-905, 2006. (SCI)(NSC92-2212-E-005-009)
 63. H. Yang, F. Lee, R. Chein*, "Microchannel heat sink fabrication with roughened bottom walls," *Microsystem Technologies*, 12, 760-765, 2006. (SCI) (NSC93-2212-E-005-004).
 64. H. Yang*, R. Chein, T.-H. Tsai, J.-C. Chang and J.-C. Wu," High-aspect-ratio microstructural posts electroforming modeling and fabrication in LIGA process," *Microsystem Technologies*, vol. 12, 187-192, 2006. (SCI)
 65. H. Yang and R. Chein*, "Communication component fabrication educational program for information technology," *International Journal of Engineering Education*, vol. 22, no. 2, pp. 300-307, 2006. (SCI)(NSC93-2212-E-005-006)
 66. J.-C. Tsai*, K. Liu and H. Yang, "Fabrication of rolling mold for a 200 μ m microlens array by 3D LIGA-like processes," *Material Research Forum*, vol. 505-507, pp.271-276, 2006 (SCI) (NSC93-2212-E-005-006).
 67. R. F. Shyu and H. Yang*, "Vacuum suction aid for microlens array formation using LIGA-like process," *International Journal of Advanced Manufacturing Technology*, Vol. 29, no. 5, pp. 518-523, 2006 (SCI) (NSC93-2212-E-005-006).
 68. H. Yang*, C.-K. Chao, T.-H. Lin and C.-P. Lin, "Fabrication of microlens array with graduated sags using UV proximity printing method," *Microsystem Technologies*, vol. 12, pp. 82-90, 2005 (SCI).(NSC92-2212-E-005-005)
 69. C.-T. Pan, H. Yang*, M.-C. Chou, S.-C. Shen, "Integrated electromagnetic microactuator with a large driving force," *Microsystem Technologies*, vol. 12, pp. 173-179, 2005 (SCI) (NSC92-2212-E-005-005).
 70. H. Yang*, C.-K. Chao, M.-K. Wei, C.-P. Lin, " High fill-factor microlens array mold insert fabrication using a thermal reflow process," *Journal of Micromechanics and Microengineering* 14, no. 6, pp. 1197-1204, 2004 (SCI) (NSC92-2212-E-005-005)
 71. H. Yang*, C.-K. Chao, C.-P. Lin, S.-C. Shen, "Micro-ball lens array modeling and fabrication using thermal reflow in two polymer layers," *Journal of Micromechanics and Microengineering* 14, no. 2, pp. 277-282, 2004 (SCI) (NSC92-2212-E-005-005)
 72. H. Yang*, C.-T. Pan, S.-C. Shen, "Optical switch with auto-aligning fibers and latching micro-mirrors," *Microsystem Technologies*, vol. 10, no. 2, pp. 155-160, 2004. (SCI) (NSC90-2218-E-005-005).
 73. M.-H. Chiu*, S.-N. Hsu, H. Yang, "D-type fiber optic sensor used as a refractometer based on total-internal reflection heterodyne interferometry," *Sensors and Actuators B*, 101, pp. 322-327, 2004. (SCI) (NSC91-2622-E-150-022-CC3)
 74. T.-H. Tsai, H. Yang*, R, Chein, "New electroforming technology pressure aid for LIGA process," *Microsystem Technologies*, vol. 10, no.5, pp. 351-356, 2004 (SCI) (NSC91-2623-7-005-002).
 75. T.-H. Tsai, H. Yang*, R, Chein, "High-aspect-ratio microstructure filling by centrifugal force field modeling," *Microsystem Technologies*, Vol. 10, no. 7 , pp. 571-577, 2004 (SCI) (NSC91-2218-E-005-001)
 76. G.-J. Wang*, W.-H. Hsu, Y.-Z. Chang, H. Yang, "Centrifugal and electrical field forces dual-

- pumping CD-like microfluidic platform for biomedical separation," *Biomedical Microdevices* 6:1, pp. 47-53, 2004 (SCI).
77. C.-T. Pan* and S.-C. Shen and H. Yang, "Efficient coupling of electrostatic optical fiber switch," *Sensors and Materials*, vol. 16, no. 1, pp. 13-24, 2004 (SCI) (NSC92-2212-E-110-029).
 78. C.-P. Lin, H. Yang*, C.-K. Chao, "A new microlens array fabrication method using UV proximity printing," *Journal of Micromechanics and Microengineering*, vol. 13, no. 5, pp. 748-757, 2003. (SCI)(NSC91-2218-005-002).
 79. C.-P. Lin, H. Yang*, C.-K. Chao, "Hexagonal microlens array modeling and fabrication using a thermal reflow process," *Journal of Micromechanics and Microengineering*, vol. 13, no. 5, pp. 775-781, 2003. (SCI) (NSC91-2218-005-002).
 80. M.-K. Wei and H. Yang*, "Cumulative heat effect in excimer laser ablation polymer PC and ABS," *International Journal of Advanced Manufacturing Technology*, vol.21, no. 12, pp. 1029-1034, 2003 (SCI) (NSC90-2218-E-005-005).
 81. H. Yang* and C.-T. Pan, "Analogous micro-optical components fabricated using excimer laser ablation," *Tamkang Journal of Science and Engineering*, Vol. 6, No. 3, pp. 145-150, 2003 (EI) (NSC91-2218-005-002).
 82. H. Yang* and C.-T. Pan, "Excimer laser-induced formation of metallic microstructures by electroless copper plating," *Journal of Micromechanics and Microengineering*, vol.12, no. 2, pp. 157-161, 2002 (SCI) (NSC89-2218-E-267-001).
 83. C. – T. Pan, H. Yang*, S.-C. Shen, M.-C. Chou, H.-P. Chou, "A low temperature wafer bonding technique using patternable materials," *Journal of Micromechanics and Microengineering*, vol. 12, no. 5, pp. 611-615, 2002 (SCI).
 84. H. Yang*, C.-T. Pan and M.-C. Chou, "Ultra-fine machining tool/molds by LIGA technology," *Journal of Micromechanics and Microengineering*, vol.11, no.2, pp.94-99, 2001 (SCI).
 85. M.-C. Chou, H. Yang*, S.-H. Yeh, "Microcomposite electroforming for LIGA technology," *Microsystem Technologies* 7, pp.36-39, 2001 (SCI).
 86. H. Yang and S.-W. Kang*, "Improvement of thickness uniformity in nickel electroforming for the LIGA process," *International Journal of Machine Tools & Manufacture*," 40, pp.1065-1072, 2000 (SCI).
 87. C.-T. Pan*, H. Yang, H.-J. Wang and M.-C. Chou, "Behavior of the developing process for ultra-deep microstructures," *Sensors and Materials*, Vol.11, no. 6, pp.339-347, MYU Tokyo, 1999 (SCI).

(B)研討會論文

1. Bo-Yu Su , Ngoc Bich Duong , Van Men Truong and Hsiharng Yang, "FeN/CNT as cathode electrode for anion exchange membrane fuel cell" Proceedings of International Conference on Sustainable Energy and Green Technology 2023 (SEGTE 2023), abstract ID: 199, Dec. 10-13, 2023, Ho Chi Ming city, Vietnam.
2. Facheng Su, Shang-Fu Wang, Hsiharng Yang, "Mixed metal oxide as the cathodes for anion exchange membrane electrolyzers," Proceedings of European Fuel Cell Forum 2023, Paper ID: B0216, 4 – 7 July 2023, Lucerne Switzerland
3. 許惟勳, 楊錫杭, "二元與三元奈米合金觸媒應用於鹼性陰離子交換膜燃料," 第十八屆全國氫能與燃料電池學術研討會暨第十屆台灣能源學會年會," 論文編號 F043, 112.09.21-22, 國立東華大學, 花蓮縣。

4. 王上輔, 楊錫杭, “非貴金屬催化劑之陰離子交換膜水電解產氫模組研發,”論文編號: 40, 第 27 屆車輛工程學術研討會暨第 2 屆台灣智慧電動車及綠能科技研討會暨展覽會, 國立中興大學 2022 年 8 月 25 日~8 月 26 日
5. Ngoc Bich Duong, Van Men Truong, Shu-Ching Yang, Hsiharng Yang, “Improving the performance and stability of the self-pumping enzymatic biofuel cell via employing CC-CNT/PEI[PCA/GOx]/Na,” GTSD 2022-Paper ID-336, July 29-30, 2022, Nha Trang city, Vietnam.
6. 楊舒晴、楊錫杭, “有效改質酵素陽極以提升葡萄糖氧化酵素燃料電池功率研究,”第十六屆全國氫能與燃料電池學術研討會暨第八屆台灣能源學會年會,”海報論文, 110.09.02-03, 國立台南大學, 台南市。
7. 田育昇、楊錫杭、陳學毓、王丞浩, ”高效能非鉑觸媒陰離子交換膜產氫模組開發,”第一屆台灣智慧電動車及綠能科技研討會, 論文編號: 121, 110.06.18, 國立中興大學, 台中市。
8. Ngoc Bich Duong, Van Men Truong, Thi Ngoc Bich Tran, Hsiharng Yang, “Effect of designing and operating parameters on the performance of glucose enzymatic biofuel cells,” Proceedings of the International Conference GTSD2020 (Computational Intelligence Methods for Green Technology and Sustainable Development), pp. 256-267, November 27–28, 2020, Ho Chi Ming City, Vietnam.
9. Li-Wei Zheng, Husan-Hung Yu, Hsiharng Yang, " Acetylene Black and Carbon Nanotue within Microporous Layer Coating for Alkaline Anion Exchange Membrane Fuel Cells," International Conference on Sustainable Energy and Green Technology (SEGT2019), Paper no. 109, December 11-14, 2019, Bangkok, Thailand.
10. Ngoc Bich Duong, Husan-Hung Yu, Hsiharng Yang, "High Efficient Enzyme Immobilized Electrodes for Self-pumping Biofuel Cells," International Conference on Sustainable Energy and Green Technology (SEGT2019), Paper no. 469, December 11-14, 2019, Bangkok, Thailand.
11. 陳冠豪、陶俊廷、楊錫杭, "複合酵素陽極用於自驅動葡萄糖氧化酵素燃料電池研究,"第 14 全國氫能與燃料電池學術研討會,”109.10.18-19, 聖約翰科技大學, 新北市。
12. 王詩叡、吳文傑、范智文、陳峻偉、張振暉、陳佑論、楊錫杭, "強化鋁合金鈍化層成長機制於電解研磨探討,"中國機械工程學會第三十四屆全國學術研討會論文集, Paper ID: 0369, Dec. 7-8, 2019, 國立台灣師範大學, 台北市。
13. 林韋名、陳建郎、楊錫杭, "奈米碳粉添加於鉛電極提升鉛酸電池效能研究,"中國機械工程學會第三十四屆全國學術研討會論文集, Paper ID: 0060, Dec. 7-8, 2019, 國立台灣師範大學, 台北市。
14. Hsiharng Yang, Cheng Kai Chang, Husan-Hung Yu, Yiyo Chen, "Corrosion current density related to gas diffusion electrodes durability study," Symposium on Insights into Gas Diffusion Electrodes: From Fundamentals to Industrial Applications, 23-25 Sept. 2019, Magdeburg, Germany.
15. Wei-Ming Lin, Shi-Rui Wang, Yiyo Chen, Hsiharng Yang, "Performance improvement of lead acid batteries by crystallized graphite powders in negative electrodes," Symposium on Insights into Gas Diffusion Electrodes: From Fundamentals to Industrial Applications, 23-25 Sept. 2019, Magdeburg, Germany.
16. Kuan Hao Chen, Hsiharng Yang, "Bi-enzyme catalysts modified anode electrodes for self-pumping glucose oxidase fuel cells," 25th Topical Meeting of the International Society of Electrochemistry Conference, 11-17 May, 2019, Toledo, Spain.
17. Xue-Lun Chou, Van Men Truong, Hsiharng Yang, "Pd-Ni nanoparticles attached onto carbon supports as anode catalysts for anion exchange membrane fuel cells," 25th Topical Meeting of the International Society of Electrochemistry Conference, 11-17 May, 2019, Toledo, Spain.
18. Van Men Truong, Ming-Kun Yang, Hsiharng Yang, "Functionalized Carbon Black Supported Silver (Ag/C) Catalysts in Cathode Electrode for Alkaline Anion Exchange Membrane Fuel Cells,"

- International Conference on Sustainable Energy and Green Technology (SEGT2018), Paper no. 27, 11-14 Dec. 2108, Kuala Lumpur, Malaysia.
19. Ngoc Bich Duong, Hsiharng Yang, " Anodic Electrode Modified by Coupling Chitosan and Nafion Biopolymers for Self-pumping Enzymatic Biofuel Cell Performance Improvement," International Conference on Sustainable Energy and Green Technology (SEGT2018), Paper no. 68, 11-14 Dec. 2108, Kuala Lumpur, Malaysia.
 20. Hsuan-Jung Chang, Yi-Wen Lin and Hsiharng Yang, " PEDOT/CNT Composite Coated Acupuncture for Serotonin and Dopamine Detections," The 8th International Conference on Positioning Technology, 27-30 Nov. 2018, Kaoshiung, Taiwan.
 21. Ngoc Bich Duong, Li Zhen Huang, Wan Ting Fang, Hsiharng Yang, " Active self-pumping enzymatic modified anodic electrodes comparison for high performance biofuel cells," 2018 IEEE International Conference on Advanced Manufacturing, Nov. 16-18, 2108, National Formosa University, Yunlin, Taiwan.
 22. M.-K. Yang, Hsiharng Yang, "Carbon Black Supported Silver (AG/C) Catalysts In Cathode Electrode For Alkaline Anion Exchange Membrane Fuel Cell," 2018 International Conference on Mechatronic, Automobile, and Environmental Engineering, Paper No.:1064, 7-9 July, 2018, Chiang Mai, Thailand
 23. V. M. Truong, C.-W. Yang, H. Yang, "Carbon Black and Multi-walled Carbon Nanotubes Supported Cobalt for Anion Exchange Membrane Fuel Cells," " Proceedings of the 3rd ASEAN Smart Grid Congress and the 5th International Conference on Sustainable Energy (ASGC3-ICSE5), Paper No.: ASGC-ICSE-10, 4-6 Dec., 2017, Ho Chi Minh City University of Technology, Vietnam.
 24. N. B. Duong, L.-Z. Huang, W.-T. Fang, H. Yang, " A self-pumping enzymatic biofuel cell modified anodic electrode for high performance compared to the active cell," 中國機械工程學會第三十四屆全國學術研討會論文集, Paper ID: 12091, 1-2 Dec. 2017, 國立勤益科技大學, 台中市。
 25. Li-Zhen Huang, Jhang-Han Wang and Hsiharng Yang, " Polyethyleneimine modified carbon cloth anode for self-pumping glucose oxidase fuel cells," Proceedings of the International Symposium on Green Manufacturing and Applications (ISGMA 2017), 27 June- 1st July, 2017, Gyeongju, Korea.
 26. Hsiharng Yang, Yi-Ta Wang, L.-Z. Huang " Rigid graphite felt synthesis as electrodes for vanadium redox flow batteries," Proceedings of 2017 International Conference on Mechatronic, Automobile, and Environment Engineering, May 27-29, 2017, Yantai, China.
 27. Shih-Huan Tang, Yi-Ta Wang, Ruei-CiJhang Jing, and Hsiharng Yang, " Bionic compound eye using microlens array with multi-focus and long focal depth," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, 30 May - 1st June, 2017, Bordeaux, France.
 28. H. Yang, Y.-T. Wang, W.-T. Fang, " The Circulatory System Study for Glucose Oxidase Enzymatic Fuel Cells," Abstract proceedings of 20th Topic Meeting of the International Society of Electrochemistry, 19-22 March, 2017, Buenos Aires, Argentina.
 29. 楊致瑋, 楊錫杭, "鹼性陰離子薄膜燃料電池的觸媒擔體研究," 第 11 屆全國氫能與燃料電池學術研討會," 論文編號 O004, 105.10.16-17, 國立台北科技大學。
 30. 王章翰, 楊錫杭, "聚乙烯亞胺修飾陽極碳布用於自驅動葡萄糖氧化酵素燃料電池研究," 第 11 屆全國氫能與燃料電池學術研討會," 論文編號 O036, 105.10.16-17, 國立台北科技大學。
 31. 朱祐廷、楊錫杭, "重力場流分離紅血球之數值模擬研究," 第 23 屆計算流體力學研討會, 高雄市, 中華民國 105 年 8 月 18-20 日。

32. C.-W. Yang, Y.-T. Wang, Y.-T. Chen and H. Yang, " Micro-ball lens array formation using different hydrophilic pattern effect," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp.286-290, 30 May - 2nd June, 2016, Budapest, Hungary.
33. R.-C. JuangJian, Y.-T. Tu, H. Yang, "Process Design and Profile Analysis of Dual-Curvature with Dual-Focus of Microlens Array," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp.286-290, 30 May - 2nd June, 2016, Budapest, Hungary.
34. 杜彥廷，楊錫杭，“雙曲率雙焦點微透鏡陣列形貌製程之研究，” 2015 中國機械工程學會暨第 32 屆全國學術研討會論文集，論文編號: 0015，民 104 年 12 月 11-12 日，國立高雄應用科技大學。
35. 謝宜隆、林群雄、楊錫杭，“石蠟與膨脹石墨於鋰電池組的熱管理研究，” 2015 中國機械工程學會暨第 32 屆全國學術研討會論文集，論文編號: 2371，民 104 年 12 月 11-12 日，國立高雄應用科技大學。
36. S.-L. You, H. Yang, " Carbon cloth cathode electrode modified by carbon nanotubes for self-pumping glucose oxidase fuel cell," 3rd International Congress on Energy Efficiency and Energy Related Materials (ENFEM2015), Abstract book paper no. 283, Oct. 19-23, 2015, Oludeniz, Turkey.
37. 游聲笠、楊致瑋、楊錫杭，“奈米碳管結合陰極碳布電極於自驅動葡萄糖氧化酵素燃料電池研究，” 第 10 屆全國氫能與燃料電池學術研討會，” 論文編號 F1-07, 104.10.02-03，國立中央大學。
38. 謝宗穎、楊錫杭，“高瓦數自驅動葡萄糖氧化酵素燃料電池研究，” 高瓦數自驅動葡萄糖氧化酵素燃料電池研究，“第 10 屆全國氫能與燃料電池學術研討會，” 論文編號 F1-04, 104.10.02-03，國立中央大學。
39. Wei-Hsiang Huang, Chia-Hung Kuo, Chwen-Jen Shieh and Hsiharng Yang*, " Optimization of immobilized glucose oxidase for enzymatic bio-fuel cell," Proceedings of The 10th International Green Energy Conference, Paper No.: IGEC-2015-1494, May 24-27, 2015, Taichung, Taiwan.
40. Yung-Fang Tsai, Hsiharng Yang*, Chwen-Jen Shieh, " Capillary force pumping fluid for glucose oxidase enzymatic fuel cells," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS 2015*, pp. 31-36, 27-39 April, Montpellier, France
41. 蔡昀芳、楊錫杭*，“自驅動流體之葡萄糖氧化酵素燃料電池研究，” 第九屆全國氫能與燃料電池學術研討會，” 論文編號 C1-14, 103.12.18-19，國立臺南大學。
42. 陳彥廷，楊錫杭，“以雙層相異親水性圖案製作微球透鏡陣列，” 2013 中國機械工程學會暨第 30 屆全國學術研討會論文集，論文編號: 1065，民 102 年 12 月 06-07 日，國立宜蘭大學，宜蘭。
43. W.-L. Liu, G.-Y. Lin, H. Yang, "A study of the simulation of a light trapping module for increasing the absorption efficiency of solar cells," ICIDMP 2013, August 24-25, Nanjing, China.
44. 張益宗、楊錫杭，“利用擴散微影法探討微透鏡外形之研究，” 第 17 屆奈米工程暨微系統技術研討會論文集，論文編號： A02-26, August 22-23, 2013, 逢甲大學。
45. C.-H. Kuo, C.-J. Shieh, W.-H. Huang, E-L. Chiang, H. Yang, "Biofuel cells composed by using glucose oxidase on chitosan coated carbon fiber cloth," Proceedings of International Symposium on Green Manufacturing and Applications (ISGMA2013), June 25-29, 2013, Honolulu, HI, USA.
46. 黃襄，江億龍，楊錫杭，“微奈米石墨片之高導熱特性量測與分析研究，” 2013 精密機械與製造技術研討會論文集, C009-1~7, May 24-26, 2013, 墾丁，屏東。
47. T.-Y. Chang, C.-H. Hung, Z.-J. Lian, H. Yang, "Using proximity exposure to produce asymmetrical lens for light control films," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp.283-288, 16-18 April, 2013, Barcelona, Spain.
48. W.-L. Liu, Y.-C. Lee, H. Yang, "Variable focus liquid lens module using direct current

- electromagnetic driving," Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.319-323, 16-18April, 2013, Barcelona, Spain.*
49. 楊錫杭*, 方婉婷, 涂宏旗, 江億龍, "自增濕氣體擴散層製造與特性用於質子交換膜燃料電池," 第五屆兩岸三地氫能研討會論文摘要集, p.198, 9/21-24, 2012, 南京大學, 南京。
 50. 楊錫杭, 郭家宏, 黃暉翔, 謝淳仁, "葡萄糖氧化酶固定於幾丁聚醣碳布應用在生物電池之研究," 第五屆兩岸三地氫能研討會論文摘要集, p.253, 9/21-24, 2012, 南京大學, 南京。
 51. 劉旺林, 陳志豪, 陳沐絃, 楊錫杭, "超音波噴塗設備於抗反射膜之分析研究," 2012 精密機械與製造技術研討會論文集, C001-1~7, May 18-20, 2012, 墾丁, 屏東。
 52. T.-H. Lin, S.Y. Hung, C. H. Hung, M. H. Shen, H. Yang, "Inclined exposure and incomplete thermal reflow process for fabricating asymmetric microlens array," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.214-217, 25-27April, 2012, Cannes, France.*
 53. C.-H. Hung, P.-S. Chang, M.-H. Yeh, "Asymmetric focusing microlens array fabricated by off-axis lithography, *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.218-223, 25-27April, 2012, Cannes, France.*
 54. T.-H. Lin, H. Yang, C.-K. Chao, H.-C. Shui, "New dual-curvature microlens array with high fill-factor for organic light emitting diode modules, *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.224-229, 25-27April, 2012, Cannes, France.*
 55. 洪建欣, 洪仕育, 林宗鴻, 沈明河, 楊錫杭, 葉茂勳, "利用斜向曝光與不完全熱熔製程開發斜透鏡陣列之研究," 2011 中國機械工程學會暨第 28 屆全國學術研討會論文集, 論文編號: E10-001, 民 100 年 12 月 10-11 日, 國立中興大學, 台中。
 56. 王碩彬, 洪建欣, 江億龍, 楊錫杭, "酚醛樹酯於石墨氈電極應用於全釩氧化還原液流電池," 2011 中國機械工程學會暨第 28 屆全國學術研討會論文集, 論文編號: A11-021, 民 100 年 12 月 10-11 日, 國立中興大學, 台中。
 57. 林冠宇, 劉旺林, 楊錫杭, "微透鏡陣列於提升太陽能電池吸收效率之光學模組模擬研究," 第 15 屆奈米工程暨微系統技術研討會論文集, CP-017, Sept. 6-7, 2011, 國立台北科技大學。
 58. T.-H. Lin, H. Yang, C. Chao, "Micro probe array fabrication by using the microlens array mask through proximity printing, " *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.176-179, 11-13 May, 2011, Aix-en-Provence, France.*
 59. S.-S. Hsu, H. Yang, T.-Y. Chang, J.-S. Hsu, "Brightness enhancement of OLEDs by using microlens array film with silicon oil and Ag particles," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.294-299, 11-13 May, 2011, Aix-en-Provence, France.*
 60. M.-J. Lin, H. Yang, F.-T. Weng, "Study of screen-printing micro-lens array using electroforming molds," *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, pp.168-272, 11-13 May, 2011 Aix-en-Provence, France.*
 61. 洪建欣、王碩彬、黃暉翔、楊錫杭、江億龍, "氣相沉積奈米碳管石墨氈電極應用於全釩氧化還原液流電池," 中華民國第二十一屆燃燒與能源學術研討會論文集, 論文編號:A09, 民 100 年 3 月 26 日, 國立虎尾科技大學, 雲林。
 62. 林格年、楊錫杭, "高精度多通道光纖之平行定位模仁製程研究," 2010 中國機械工程年會暨第 27 屆全國學術研討會論文集, 論文編號: EE10-021, 民 99 年 12 月 10-11 日, 國立台北科技大學, 台北。
 63. 劉俊宏、楊錫杭, "微透鏡陣列之仿生複眼影像擷取系統研究," 2010 航太學會學術研討會論文集, 論文編號: G1-1, 民 99 年 12 月 4 日, 開南技術學院, 桃園。
 64. H. Yang, J.-H. Hung, S.-P. Wang, I.-L. Chiang, "Graphite felt with vapor grown carbon fibers as electrodes for vanadium redox flow battery," *Proceeding of 11th IUMRS International Conference*

- in Asia, paper no. B30, Sep. 25-28, 2010, Qingdao, China.
65. 楊錫杭, 林盈妃, 葉茂勳, “非對稱微透鏡陣列設計製作研究,”第十四屆奈米工程暨微系統技術研討會論文集, 論文編號: C08-39, 民 99 年 9 月 2-3 日, 國立中山大學, 高雄。
 66. 林明哲、楊錫杭、徐瑞芳、姜智豪、葉茂勳, “電鑄網版轉印微透鏡陣列製程研究,”2010 第十八屆全國自動化科技研討會論文集, 論文編號: A07-0001, 民 99 年 6 月 25-26 日, 中原大學, 中壢。
 67. H. Yang, J.-K. Huang, Y.-F. Lin, R. F. Shyu and M.-S. Yeh, “Low voltage piezoelectricity actuating variable focus plano-convex liquid lens module fabrication,” *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 119-123, 5-7 May, 2010, Seville, Spain.
 68. T.-H. Lin, H. Yang, C.-K. Chao, “New high fill-factor dual-curvature microlens array fabrication using UV proximity printing,” *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 284-288, 5-7 May, 2010, Seville, Spain.
 69. Y.-F. Lin, H. Yang and M.-S. Yeh, “Influence of microlens fabricated by thermal reflow process at different substrate surfaces,” *Proceeding of MESO 2010*, PP. 239-242, National Taiwan University of Science and Technology, Taipei, June 21-25, 2010.
 70. S.-S. Hsu, H. Yang and M.-S. Yeh, “Asymmetrical mesolens array fabrication by tilted substrate in thermal reflow process,” *Proceeding of MESO 2010*, PP. 231-234, National Taiwan University of Science and Technology, Taipei, June 21-25, 2010.
 71. S.-S. Hsu, H. Yang and J.-S. Hsu, “High Fill-factor Microlens Array Fabrication Using Proximity Printing with the Microlens Array Mask,” *Proceeding of IRIS2010*, pp. 194-198, Nagoya University, Japan, March 8-11, 2010.
 72. 劉俊良, 楊錫杭, 江億龍, “微小型酵母菌微生物燃料電池系統與發電特性研究, 第四屆全國氫能與燃料電池學術研討會,”論文編號 C1-14, 98.12.18-19, 國立台灣科技大學。
 73. 沈宗億, 楊錫杭, “擴散奈米粒子於高均勻度導光板之模擬與實驗,” OPT 2009 台灣光電科技研討會, 論文編號: GP044, 2009.12.11-12, 國立臺灣師範大學工館校區。
 74. 黃俊貴, 葉茂勳, 楊錫杭, “彈性膠膜之可變焦液態透鏡模組之研究,” OPT 2009 台灣光電科技研討會, 論文編號: FP033, 2009.12.11-12, 國立臺灣師範大學工館校區。
 75. H. Yang, C.-D. Wu, H.-C. Tu, “Effect of hydrophobic substrate on anodic electrode related to DMFC performance,” 2009 Fuel cell seminar & Exposition, Nov. 16-19, 2009, Palm Springs Convention Center, Palm Springs, CA, USA
 76. T.-H. Lin, H. Yang, C.-K. Chao, “New fabrication method of micro-pyramidal vertical probe array for probe cards,” *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 122-126, 1-3 April, 2009, Rome, Italy.
 77. R. Chein, H. Yang, T.-H. Tsai and C. Lu, “Experimental Study of Heat Sink Performances Using Copper Foams Fabricated by Electroforming,” *Proceeding of Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 102-106, 1-3 April, 2009, Rome, Italy.
 78. 楊錫杭、徐姍姍、張棟瑜, “高數值孔徑微透鏡陣列之微成型研究” 中華民國航空太空學會第五十屆年會暨學術研討會論文集, 論文編號: 12-07, 淡江大學, Dec. 06, 2008.
 79. 楊錫杭、郭明蒼、葉茂勳, “低電壓之壓電驅動膜片可變焦液態透鏡研究,”中國機械工程學會第 25 屆學術研討會論文集, 論文編號: 1260, 大葉大學, Nov. 21-22, 2008.
 80. Shan-Shan Hsu, Tung-Yu Chang, Hsiharng Yang, “High Numerical Aperture Microlens and Its Array Using Proximity Printing with the Microlens Mask,” Proceeding of International Topical Meeting on Information Photonics 2008, P1-37, Hyogo, Japan, Nov. 16-20, 2008.
 81. Ruey Fang Shyu, Shyh Lung Lu, Jung-Jun Wu, Hsiharng Yang, ”Using Immersion Lithography for Fabricating the Ridged Polymeric Waveguide with A Reflective End,” Proceeding of International Topical Meeting on Information Photonics 2008, P2-36, Hyogo, Japan, Nov. 16-20, 2008.

82. 楊錫杭、吳建德、涂宏旗，“陽極電極結構對直接甲醇燃料電池效能的影響，”第三屆全國氫能與燃料電池學術研討會論文集，FC004，國立台南大學，Nov. 14-15, 2008.
83. 楊錫杭，陳俊彥，楊文虎，趙振綱，“近接曝光微影製作光學增亮膜研究，”2008台灣顯示科技研討會論文集，pp. 343-346, 11-12 June, 2008.
84. 楊錫杭，吳昭雄，趙振綱，“浸入式傾斜曝光製作複合光學微結構之研究，”精密機械與製造科技研討會論文集，論文編號 C30, 23-25 May, 2008.
85. J.-C. Tsai, M.-F. Chen, H. Yang, “Design and fabrication of high numerical aperture and low aberration bi-convex microlens array,” Proceeding of *Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 174-176, 9-11 April, 2008, Nice, France.
86. T.-H. Lin, H. Yang, c.-k. Chao, “New high fill-factor triangular microlens array fabrication method using UV proximity printing,” Proceeding of *Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 187-181, 9-11 April, 2008, Nice, France.
87. R. F. Shyu, H. Yang, J.-H. Lee, “Micro-electroforming metallic bipolar electrodes for mini-DMFC stacks,” Proceeding of *Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 192-196, 9-11 April, 2008, Nice, France.
88. H. Yang, T.-H. Tsai, C.-C. Hu, “Portable valve-less peristaltic micropump design and fabrication,” Proceeding of *Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*, pp. 273-278, 9-11 April, 2008, Nice, France.
89. 楊錫杭，李鈞函，“微成型金屬雙極板於微型直接甲醇燃料電池之研究，”第二屆台灣氫能與燃料電池學術研討會論文集，論文編號 FC030，台灣科技大學，民 97 年元月 4-5 日。
90. 楊錫杭，薛文林，劉毅，“高功率發光二極體適用之側向反射片於導光板設計與製作，”中國機械工程學會第二十四屆全國學術研討會論文集，論文編號 E09-0012，中原大學，民 96 年 11 月 23-24 日。
91. 徐姍姍，楊錫杭，“近接曝光微影製作高數值孔鏡微透鏡與其陣列之研究，”第 11 屆奈米工程暨微系統技術研討會論文集，A3-3，中興大學，Aug. 30-31, 2007.
92. 楊錫杭，吳仲洞，葉茂勳，張家華，“傾斜反射端面之高分子脊樑式波導之研製，”第 11 屆奈米工程暨微系統技術研討會論文集，A3-5，中興大學，Aug. 30-31, 2007.
93. 楊錫杭，蔡宗勳，胡竣傑，“可攜無閥蠕動式微泵浦製作與分析，”2007 精密機械與製造技術研討會論文集，B01-1~7, May 19-20, 2007, 墾丁，屏東。
94. 楊錫杭，徐瑞芳，周聖雄，“多功能手指控制型滑鼠鍵盤研製，”2007 精密機械與製造技術研討會論文集，B20-1~7, May 19-20, 2007, 墾丁，屏東。
95. H. Yang, C.-Y.- Yang, M.-H. Mou, “Fabrication of Miniaturized Variable-focus Lens Using Liquid Filling Technique,” Proceeding of *2007 Design, Test, Integration and Packaging of MEMS/MOEMS Conference*, pp.377-382, April 25-27, 2007, Stresa, Italy.
96. C.-H. Lin, H. Yang, R. F. Shyu, C.-K. Chao, “New Horizontal Frustum Optical Waveguide Fabrication Using UV Proximity Printing,” Proceeding of *2007 Design, Test, Integration and Packaging of MEMS/MOEMS Conference*, pp.314-319, April 25-27, 2007, Stresa, Italy.
97. R. F. Shyu, M.-T. Lee, W.-H. Cheng, H. Yang, “High Brightness Light-guide Plate with Truncated Pyramid Microstructures,” Proceedings of Asia Display 2007, vol. 2, pp. 1727-1732, March 12-16, 2007, Shanghai, China.
98. 楊錫杭，王錫欽，“微透鏡輔助螢光生物晶片檢測系統之研發，”中華民國航空太空學會第四十八屆年會暨學術研討會論文集，論文編號 12-07，國立中央大學，民 95.12.10。
99. 楊錫杭，廖瑞瑜，“微金字塔結構製程應用於發光二極體封裝研究，”中國機械工程學會第二十三屆全國學術研討會論文集，論文編號 E1-12，崑山科技大學，民 95 年 11 月 24-25 日。
100. 楊錫杭，程偉烜，“四角錐微結構提升導光板亮度製程研究，”中國機械工程學會第二十

- 三屆全國學術研討會論文集，論文編號 E1-13，崑山科技大學，民 95 年 11 月 24-25 日。
- 101.H. Yang and S.-S. Hsu," Micro-tip Array Fabrication Using a Microlens Array Mask with Proximity Printing," Proceedings of the IMLF 2006, paper code: L03-TW-FP043, pp. 1-6, Oct. 23-25, 2006, Taipei, Taiwan.
 - 102.H. Yang, W-S Cheng, R. F. Shyu, F-T. Weng, "Optical Tapered array in light-guide plate fabrication for enhancing backlighting brightness," SID 2006 International Symposium, Digest of Technical Papers, pp. 454-457, June 5-9, 2006, San Francisco, CA, USA.
 - 103.J.-C. Tsai, K.-R. Chang, H. Yang, "An Experimental Study of PTFE Surface Roughness Effect on Microlens Fabricated by Thermal Reflow," Proceedings of the 6th International Conference of the European Society for Precision Engineering and Nanotechnology, Volume 1, pp.58-61, May 28 – June 1, 2006, Baden bei Wien, Vienna, Austria.
 - 104.Hsiharng Yang and Chung-Tze Lee, "Miniaturized Fluorescence Excitation Platform with Optical Fiber for Bio-detection Chips," Proceeding of 2006 *Design, Test, Integration and Packaging of MEMS/MOEMS Conference*, pp. 250-254, April 26-28, 2006, Stresa, Italy.
 - 105.Tsung-Hung Lin, Hsiharng Yang and Ching-Kong Chao, "Concave microlens array mold fabrication in photoresist using UV proximity printing," Proceeding of 2006 *Design, Test, Integration and Packaging of MEMS/MOEMS Conference*, pp. 52-57, April 26-28, 2006, Stresa, Italy.
 - 106.Ruey Fang Shyu, Hsiharng Yang, Wen-Ren Tsai and Jhy-Cherng Tsai, "Micro-ball lens array fabrication in photoresist using PTFE hydrophobic effect," Proceeding of 2006 *Design, Test, Integration and Packaging of MEMS/MOEMS Conference*, pp. 110-115, April 26-28, 2006, Stresa, Italy.
 - 107.Hsiharng Yang, Yung-Chia Chen, Hsi-Chin Wang, Jing-Shiang Shih, Min-Hua Chen, Chien-Jen Chen, "Porous Copper Foam Fabricated by Electroforming for Heat Sinks," Proceeding of 9th International Conference on Mechatronic Technology (ICMT2005), ICMT-65, 5-8 Dec. 2005, Kuala Lumpur, Malaysia.
 - 108.楊錫杭、李宗哲,“光纖式微型生醫檢測之螢光激發平台研究,”中國機械工程學會第二十二屆全國學術研討會論文集, E1-029, pp. 131-136, 民 94. 11. 25-26.
 - 109.林宗鴻, 楊錫杭, 趙振綱, “利用近接轉印法製作 PDMS 微透鏡陣列之光阻模仁,”中國機械工程學會第二十二屆全國學術研討會論文集, E1-035, 民 94. 11. 25-26.
 - 110.楊錫杭, 吳孟諭, 易威廷, 郭志翔, “圓錐微結構之高亮度導光板製程研究,”中國機械工程學會第二十二屆全國學術研討會論文集, E4-010, 民 94. 11. 25-26.
 - 111.蔡志成, 張凱榮, 楊錫杭, “鐵弗龍塊表面粗糙度對熱熔成形微透鏡高徑比影響之探討,”中國機械工程學會第二十二屆全國學術研討會論文集, E4-016, 民 94. 11. 25-26.
 - 112.楊錫杭、楊中堯、丁群修、張家華,“液體注入式之微小型可變焦透鏡研製,”第九屆奈米工程暨微系統技術研討會論文集, B4, 南台科技大學, 民 94. 11. 10-11。
 - 113.王國禎、張文喬、楊錫杭, “人工離子幫浦”, 第九屆奈米工程暨微系統技術研討會論文集, P4, 南台科技大學, 民 94. 11. 10-11。
 - 114.Wang, G. J., Chang, J. H., and Yang H., "Triplex-Pumping CD-Like Microfluidic Platform with Parabolic Microchannels," Proceeding of the 2005 *Design, Test, Integration and Packaging of MEMS/MOEMS Conference*, pp 49-55, 2005.
 - 115. Hsiharng Yang , Ruey Fang Shyu, Jun-Wei Huang, "New Fabrication Method of Convex Microlens Array for Integrated Fluorescence Microfluidic Detection Systems," DTIP of MEMS & MOEMS2005, Montreux, Switzerland, 1-3 June, pp. 60-65, 2005.(93-2212-E-005-006)
 - 116.G-J. Wang, J-H. Chang, H. Yang, "Triplex-pumping CD-like microfluidic platform with parabolic microchannels," DTIP of MEMS & MOEMS2005, Montreux, Switzerland, 1-3 June, pp. 49-55, 2005.
 - 117.J.-C. Tsai, K. Liu, H. Yang, "Experimental study of fabricating a three-dimensional microlens

- array," Proceeding of Automation 2005, A117, Taichung, Taiwan, May 506, 2006.
- 118.H. Yang, F.-Y. Li, R. Chein, "Hexagonal prism microstructure fabrication using monolithic etching process," Proceeding of Automation 2005, A116, Taichung, Taiwan, May 506, 2005.
- 119.Hsiharng Yang, Reiyu Chein, "Communication component fabrication training program for information technology education," Proceeding of International Conference on Engineering Education and Research (iCEER05) 2005, 11-01, March 2-4, 2005, Tainan, Taiwan.
- 120.Hsiharng Yang, Meng-Yu Wu, Wei-Ting Yi, "Micro-tapered Post Array for New Light-guide Plate Molding Technology in Liquid Crystal Displays," Proceeding of International Display Manufacturing Conferences (IDMC) 2005, pp. 531-534, Feb. 21-24, 2005, Taipei, Taiwan.
- 121.楊錫杭，蔡志成，謝孟昀，“近接式微影曝光微透鏡陣列成形之光學探討,”第八屆奈米工程暨微系統技術研討會論文集, p-28, Dec. 2-3, 2004, 國立清華大學.
- 122.楊錫杭，王國禎，林俊男，施彥璋，“鎳鈷合金奈米柱之電鑄模造研究,”第八屆奈米工程暨微系統技術研討會論文集, p-33, Dec. 2-3, 2004, 國立清華大學.
- 123.Hsiharng Yang, Ruey Fang Shyu, Feng-Tsai Weng, Hui-Cheng Tay, Chi-Chia Liu, "Vacuum Suction Aid for Microlens Array Formation Using LIGA-like Process ,," Proceedings of ICMT2004, pp. 329-334, Nov. 8-12, 2004, Hanoi, Vietnam.
- 124.Hsiharng Yang, "Engineering education in the nanomachining curriculum," Proceedings of iCEER2004 Conference, pp. 779-788, June 28-30, 2004, Olomouc, Czech Republic.
- 125.楊錫杭，趙振綱，林宗鴻，林哲平，“利用 UV 近接式轉印方法製作漸變鏡片高度的微透鏡陣列,”2004 第十三屆全國自動化科技研討會, L06, 中華民國九十三年六月十七日~十八日，國立台北科技大學.
- 126.楊錫杭，黃俊璋，“紫外光固化膠製作微透鏡陣列之新式製程研究,”中國機械工程學會第二十一屆全國學術研討會論文集, pp. 5055-5060, 民 93 年 11 月 26-27 日，國立中山大學.
- 127.王國禎，張峻豪，楊錫杭，“三重推動力新型分離晶片平台,”中國機械工程學會第二十一屆全國學術研討會論文集, pp. 5129-5134, 民 93 年 11 月 26-27 日，國立中山大學.
- 128.楊錫杭，徐瑞芳，鄭慧成，“真空吸取應用於類 LIGA 技術成形微透鏡陣列之探討,”中國機械工程學會第二十一屆全國學術研討會論文集, pp. 5675-5680, 民 93 年 11 月 26-27 日，國立中山大學.
- 129.Hsiharng Yang, Cheng-Tang Pan, Shen-Chih Shen, "Integrated electromagnetic microactuator with a large driving force," Proc. DTIP of MEMS & MOEMS, pp. 301-306, Montreux, Switzerland, 12-14 May, 2004.
- 130.Hsiharng Yang, Ching-Kong Chao, Tsung-Hung Lin and Che-Ping Lin, "Fabrication of graduation microlens array with increasing sag heights using UV proximity printing method," Proc. DTIP of MEMS & MOEMS, pp. 467-472, Montreux, Switzerland, 12-14 May, 2004.
- 131.Hsiharng Yang, Che-Ping Lin, Ching-Kong Chao, Cheng-Tang Pan, "Hexagonal microlens array fabricated by proximity printing via UV lithography," Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, Cannes, France, May 5-7, 2003.(NSC91-2218-E-005-002)
- 132.Hsiharng Yang, Tsung-Shuin Tsai, Reiyu Chein, Chia-Hua Chang, Jen-Chin Wu, "A new electroforming technology in aid of pressure for LIGA process," 2003 Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, Cannes, France, May 5-7, 2003(NSC91-2623-7-005-002).
- 133.徐文浩，王國禎，張耀仁，楊錫杭，“電場力與離心力交互作用之新型類光碟機式微電泳生醫分離系統,”2003 年第九屆化學感測器科技研討會論文集, pp. 27-30, May 2, 2003.
- 134.Hsiharng Yang, Tsung-Shuin Tsai and Reiyu Chein, "Pressure assistant technology applied for high-aspect-ratio electroforming process," HARMST2003, Monterey, California, USA, June 15-16, 2003.
- 135.蔡宗勳，楊錫杭，簡瑞與，“高深寬比微電鑄表面離子濃度受停滯流厚度影響之計算分

- 析，”第十屆全國計算流體力學學術研討會，花蓮，中華民國九十二年8月14-16日。
136. Ming-Horng Chiu, Hsiharng Yang and Shao-Nan Hsu, “Development of the liquid refractometer using optical fiber detection,” Proceedings of the 8th Optoelectronics and Communication Conference (OECC2003), pp. 833-834, Shanghai, China, Oct. 8-11, 2003.
137. Ruey Fang Shyu, Hsiharng Yang, Wei-Chung Chuang, Feng-Tsai Weng, Chi-Ting Ho, “Development of the polymeric grating-waveguide for OADM components,” Proceedings of the 8th Optoelectronics and Communication Conference (OECC2003), pp. 225-226, Shanghai, China, Oct. 8-11, 2003.
138. Hsiharng Yang, Feng-Tsai Weng, Reuy Fang Shyu and Hei-Cheng Tay, “Rapid growth electroforming technology for micromold fabrication in LIGA process,” Proceedings of International Conference on Leading Edge Manufacturing in 21st Century (LEM21), pp. 199-204, Niigata, Japan, Nov. 3-6, 2003.
139. Gou-Jen Wang, Ying-Hsu Lin, Hsiharng Yang, Cheng-Tang Pan, ”Design and fabrication of a high efficiency piezoelectric vibration-induced micro power generator, ”IMECE2003 (International Mechanical Engineering Congress and Expo 2003, Nov. 15-21, Washington DC).
140. 楊錫杭, 蘇俊豪, 黃廷合, “熱壓式微透鏡陣列之設計與製程分析,” 第三屆精密機械製造研討會論文集, pp. 318-324, 國立中山大學, Nov. 15, 2003.
141. 楊錫杭, 趙振綱, 林哲平, 沈聖智, “Micro-ball lens array fabrication for fiber coupling using thermal reflow in two polymer layers,” 第三屆精密機械製造研討會論文集, pp. 353-359, 國立中山大學, Nov. 15, 2003.
142. 吳祥銘, 楊錫杭, 潘吉祥, “鎳鈷合金微電鑄技術於微模具成形之研究,” 2003 年材料學年會論文集, 崑山科技大學, Nov. 11-12, 2003.
143. Hsiharng Yang, Hui-Cheng Tay, Chia-Hua Chang, Jen-Chin Wu, “Rapid growth electroforming technology for the LIGA process,” 第七屆奈米工程暨微系統技術研討會論文集, pp. 257-260, 台灣大學, Nov. 20-21, 2003.
144. Che-Ping Lin, Hsiharng Yang, Ching-Kong Chao, “A new microlens array fabrication method using UV proximity printing,” 第七屆奈米工程暨微系統技術研討會論文集, pp. 273-276, 台灣大學, Nov. 20-21, 2003.
145. 徐文浩, 王國禎, 張耀仁, 楊錫杭, “以金屬光罩法製作導電層之圓盤式電泳晶片分離系統,” 第廿屆全國機械工程學術研討會論文集, pp. 193-199, 台灣大學, Dec. 5-6, 2003.
146. Hsiharng Yang, Ching-Kong Chao, Che-Pin Lin, “Square microlens arrays with high fill-factor using a thermal reflow process,” 第廿屆全國機械工程學術研討會論文集, pp. 581-588, 台灣大學, Dec. 5-6, 2003.
147. 劉耕儒, 楊錫杭, 蔡志成, “立體式微透鏡模仁結構之研製,” 第廿屆全國機械工程學術研討會論文集, pp. 573-580, 台灣大學, Dec. 5-6, 2003.
148. H. Yang, C.-K. Chao, C.-P. Lin, S.-C. Shen, J.-C. Wu, C.-H. Chang, “Micro-ball lens array modeling and fabrication using two polymer layers by thermal reflow,” Proceeding of ICMT2003, pp. 397-402, National Taiwan University, Dec. 3-6, 2003.
149. Hsiharng Yang, “Planarization study of electroforming microstructures in the LIGA Process,” 第四屆磨粒加工技術論文發表會論文集, pp. 47-54, 工業技術研究院, Dec. 12, 2003.
150. 邱銘宏, 徐韶男, 楊錫杭, “New-type fiber refractometer based on total-internal reflection heterodyne interferometry,” 2003 台灣光電研討會論文集, 台北科技大學, Dec. 25-26, 2003.
151. 莊為群, 梁曉蘋, 楊錫杭, 李昆益, “液晶可調式積體光學高分子光柵耦合式光補/取多工元件設計,” 2003 台灣光電研討會論文集, 台北科技大學, Dec. 25-26, 2003.
152. H. Yang, C.-T. Pan, S.-C. Shen, “Fabrication of optical switch arrays with auto-aligning fibers and latching micro-mirrors,” Proceeding of SPIE, Vol.4755, pp. 439-447, DTIP2002, May 6-8, 2002,

- Cannes, France. (NSC89-2218-E-267-001).
153. H. Yang, D.-M. Sue, W.-C. Chung, C.-T. Pan, Y. Chao, "Design and simulation of a new planar OADM component," Proceeding of SPIE, Vol.4755, pp. 303-309, DTIP2002, May 6-8, 2002, Cannes, France. (NSC90-2218-E-005-005)
154. H. Yang, R. Chein, R.F. Shyu, and H.-M. Wu, "Electroforming for metallic micromolds bonding on thick mold plate," Proc. Pacific Rim Workshop on Transducers and Micro/Nano Technologies, pp. 195-198, July 22-24, 2002, Xiamen University, China.
155. R. F. Shyu, F.-T. Weng, C.-T. Pan, H. Yang, "Fabrication of integrated microlens array mold/mold insert for mass production," Proc. SPIE, vol. 4928, pp. 85-92, 2002 APOC, Oct. 14-18, 2002, Shanghai, China. (NSC90-2218-E-005-005-005)
156. 楊錫杭, 莊為群, 蘇東閩, "挫柵式光補/取多工器之設計與製程分析," 中國機械工程師學會第十九屆全國學術研討會, 國立虎尾技術學院, Nov. 29-30, 2002.
157. 楊錫杭、莊為群、梁曉蘋、林建男、陳奇峯, "高分子光柵耦合式光補/取多工元件設計與比較," 第八屆微系統科技協會年會暨國科會微機電系統成果發表會之奈微米工程聯合研討會論文集, 成功大學, Nov. 21-22, 2002.
158. 王國禎、楊錫杭、林盈旭、潘正堂, "薄膜式壓電型微發電機設計與製程研究," 第八屆微系統科技協會年會暨國科會微機電系統成果發表會之奈微米工程聯合研討會論文集, 國立成功大學, Nov. 21-22, 2002.
159. 蔡宗勳 楊錫杭、簡瑞興, "壓力輔助式之電鑄製程研究," 薄膜式壓電型微發電機設計與製程研究," 第八屆微系統科技協會年會暨國科會微機電系統成果發表會之奈微米工程聯合研討會論文集, 國立成功大學, Nov. 21-22, 2002.
160. 楊錫杭, 潘正堂, 周敏傑, "Selective copper electroless plating assisted by the excimer laser," 第十二屆全國自動化科技研討會論文集, 4202B-6, 國立虎尾技術學院, May 25-26, 2001.
161. 潘正堂, 楊錫杭, 沈聖智, "Self-parking fiber and self-latching vertical mirror for fiber-optical switch array," 2001 年精密機械製造學術研討會論文集, pp. 334-340, 淡江大學, Nov. 3, 2001.
162. C.-P. Pan, S.-C. Shen, H. Yang, M.-C. Chou, and S.-T. Wu, "Electromagnetic optical switch for optical network communication," Proceeding of SPIE, Vol. 4582, pp. 240-246, AOPC 2001, Beijing, China, Nov. 12-16, 2001.
163. 楊錫杭, 潘正堂, 穆傳康, 周敏傑, "Micromold inserts for fabricating refractive microlens arrays in mass production," 中國機械工程學會第十八屆全國學術研討會論文集, 第五冊新興工程技術, pp.277-282, 國立台灣科技大學, Dec. 7-8, 2001. (NSC89-2218-E-267-001)
164. H. Yang, D.-M. Sue, W.-C. Chung, C.-T. Pan, Y.-H. Chao, "Design and simulation of micro-optical wavelength add-drop multiplexing components," 第五屆奈米工程暨微系統研討會論文集, pp. 1-121-126, 國立交通大學, Dec. 12-13, 2001.
165. 周敏傑, 楊錫杭, 陳世洲, 吳東權, "Ultra-fine machining tool/molds forming technology," 第一屆海峽兩岸製造技術研討會, 國立台灣大學, Jan. 18-19, 2000, pp. 139-149.
166. 楊錫杭, 杜日行, 潘正堂, 周敏傑, "Development of graphite membrane based x-ray mask for LIGA process," 第六屆微系統科技協會年會暨微機電系統成果發表會論文集, pp.131-134, 淡江大學, March 31, 2000.
167. H. Yang, M.-C. Chou, C.-T. Pan, H.-J. Wang, and J. L. Lin, "Graphite membrane applied for high-aspect-ratio microstructures fabrication," Photomask Japan 2000, Proceedings of SPIE, vol. 4066, pp. 141-147, Tokyo, April 12-13, 2000.
168. H. Yang, T.-H. Huang, and C.-T. Pan, "Model of developing progress for ultra-deep polymeric microstructures forming process," The International Union of Materials Research Societies – 6th International Conference in Asia (IUMRS-ICA 2000), Hong Kong, July 24-26, 2000.
169. C. T. Pan, H. Y. Tsai, Y. S. Lin, J. J. Yang, M. Y. Liu, S.-C. Chen, M.-C. Chou, H. Yang, "Micro-

- optical components fabricated by excimer laser ablation," 第四屆奈米工程暨系統技術研討會論文集, pp. 2-129~137, 工業技術研究院, Nov. 1-2, 2000.
170. R. F. Shyu, H. Yang, and M.-C. Chou, "Realization of multi-fiber ferrule mold inserts fabricated by the LIGA process," *International Symposium on Microelectronics and Assembly, Proceedings of SPIE*, vol. 4230, pp. 210-217, Nov. 27 - Dec. 2, Singapore, 2000.
171. H. Tsai, H. Yang, C.-T. Pan, M.-C. Chou, "Laser patterning indium tin oxide (ITO) coated on PET substrate," *2000 International Symposium on Microelectronics and Assembly, Proceedings of SPIE*, vol. 4230, pp. 156-163, Nov. 27 - Dec. 2, Singapore, 2000.
172. H. Yang, S. W. Kang, and M.-C. Chou, "Three x-ray mask-making methods applied for LIGA process," *Photomask Japan '99 Symposium on Photomask and X-ray Mask Technology VI, Proceeding of SPIE*, Vol. 3748, pp. 495-502, Yokohama, Kanagawa, Japan, April 13-14, 1999.
173. 潘正堂, 楊錫杭, 王宏杰, 穆傳康, 周敏傑, "The study of developing process for ultra-deep microstructures," 中國機械工程學會第十六屆全國學術研討會論文集第五冊新興工程技術, pp. 70-74, 國立清華大學, Dec. 3-4, 1999.
174. 楊錫杭, 周敏傑, "The alignment mold insert for optical multi-fiber ferrule fabrication," 第五屆微系統科技協會年會暨微機電研討會論文集, pp. 67-70, 成功大學, April 17, 1999.
175. 楊錫杭, 潘正堂, 周敏傑, "Fabrication of the mold inserts for optical multi-fiber ferrule production by using LIGA process," 第三屆奈米工程暨系統技術研討會論文集, pp. 3-131~138, 工業技術研究院, May 4-5, 1999.
176. H. Yang, M.-C. Chou, A. Yang, and C.-K. Mu, "Realization of fabricating microlens array in mass production," *The International Symposium in Optical System Design and Production of the European Optical Society (EUROPTO), Proceeding of SPIE*, Vol. 3739, pp. 178-185, Technical University of Berlin, Germany, May 26-29, 1999.
177. H. Yang, S.-W. Kang, and R. F. Shyu, "The investigation of embedding abrasive grits onto the microgrinding tools by nickel electroforming," *1st International Conference and General Meeting of the European Society for Precision Engineering Conference Nanotechnology (EUSPEN)*, Congress Centrum Bremen, Germany, Vol. 1, pp. 392-395, May 31-June 4, 1999.
178. H. Yang and M. Vasile, "Fabrication of high precise metallic optical fiber ferrules insert with twelve channels," *Design, Test, and Microfabrication of MEMS and MOEMS Symposium, Proceeding of SPIE*, Vol. 3680, pp. 848-853, Paris, France, March 30-April 1, 1999.
179. M.-K. Wei, Y.-S. Lin, H. Yang, S.-C. Chen, and T.C. Wu, "Cumulative heat effect on micromachined polymers in the excimer laser machining," *Proceeding of ICMT 98*, ITRI, Hsinchu, Nov. 30-Dec. 2, pp. 173-177, 1998.
180. H. Yang and S.-W. Kang, "Improvement of thickness uniformity in nickel electroforming for the LIGA process," 中國機械工程學會第十五屆全國學術研討會論文集新興工程技術, pp. 51-56, 成功大學, Nov. 27-28, 1998.

(C) 專書及專書論文

1. H. Yang, Master's thesis, *Intermediate Mask Design for Deep X-ray Mask Fabrication*, Louisiana Tech University, August 1995.
2. H. Yang, Doctoral dissertation, *Development and Realization of A Single-mode Optical Fiber Ferrule Mold Insert with Twelve Channels*, Louisiana Tech University, August 1998.
3. 楊錫杭, 微機械加工概論, 全華科技圖書公司, 民 91 年 12 月
4. 楊錫杭, 黃庭合, 微機械加工概論(修訂版), 全華科技圖書公司, 民 93.12.

(D)技術報告及其他等

1. 楊錫杭, 趙振綱, 林宗鴻, “近接曝光於微光學元件開發與應用,” 科儀新知, 第 161 期, pp. 56-63, 民 2007.12.
2. 楊錫杭, 錐狀微結構製程以提升導光板效能研究, 樂訊科技股份有限公司產學合作研究期末報告, 38 頁, 民 96.01.30.
3. 楊錫杭, 微透鏡導光面板成形研究, 92 年度提昇產業技術及人才培育研究計畫成果報告書, 50 頁, 民 94.03.07.
4. 李宗哲, 楊錫杭, “骰子達人 Big Hand,” 科學月刊, 第 36 卷第 6 期, pp. 480-483, 2005.
5. 楊錫杭, 微光件合金電鑄翻模技術開發, 中山科學研究院委託學術機構期末研究成果報告書, 41 頁, 民 93.12.09.
6. 楊錫杭, 微光件合金電鑄翻模技術開發, 中山科學研究院委託學術機構期中研究成果報告書, 65 頁, 民 93.07.08.
7. 楊錫杭, 微光件合金電鑄翻模技術開發, 中山科學研究院委託學術機構初步研究成果報告書, 34 頁, 民 93.01.07.
8. 楊錫杭, 小尺寸導光板成形技術研究, 台灣綠點高新科技股份有限公司計畫結案報告, 48 頁, 民 92.12.20.
9. 楊錫杭, 精密銅電鑄技術開發, 國防科技學術合作協調小組研究計畫成果報告, 60 頁, 民 92.02.20. (NSC91-2623-7-005-002)
10. 楊錫杭, 微透鏡模仁成形技術先導性研究, 邦泰複合材料股份有限公司計畫期末報告, 64 頁, 民 91.12.20.
11. 楊錫杭, 莊為群, 高分子波導光柵設計與製程研究, 工業技術研究院委託學術機構研究期末報告, 54 頁, 民 91.12.10.
12. 王國禎, 楊錫杭, 高頻震動薄膜設計製程開發, 工業技術研究院委託學術機構研究期末報告, 27 頁, 民 91.11.27.
13. 林寬鋸, 楊錫杭, 3D 高深寬比微結構製程研究, 工業技術研究院委託學術機構研究期末報告, 27 頁, 民 91.11.27.
14. 楊錫杭, 莊為群, 高分子波導光柵設計與製程研究, 工業技術研究院委託學術機構研究期中報告, 52 頁, 民 91.07.12.
15. 楊錫杭, 莊為群, 微致動器材料先導性研究, 工業技術研究院委託學術機構研究期末報告, 29 頁, 民 90.11.16.
16. 楊錫杭, 黃俊瑋, “微齒輪機構的技術發展,” 微系統暨奈米科技協會會刊, 第九期, pp. 75-84, 2003.
17. 楊錫杭, 吳祥銘, 羅世哲, “邁向 110 奈米點陣結構之加工技術,” 科儀新知, 第二十四卷, 第一期, pp. 28-34, Aug. 2002.
18. 楊錫杭, 張世昌, “微通道面板之應用與製造,” 微系統科技協會會刊, 第六期, pp. 48-54, 2001.

