

**Lee, Duu-Jong ( 李篤中 )**

Professor

B.S. in Chemical Engineering  
National Taiwan University, 1984

Ph.D. in Chemical Engineering  
National Taiwan University, 1990

**Research and Professional Interests**

Biomass resource & utilization  
bio-hydrogen & methane fermentation  
landfill bioreactor  
Biological micro-reactors  
fractal structure and transport  
Microbial community tracking by  
molecular microbiology techniques  
Water treatment and reuse  
coagulation and NOMs  
membrane bioreactor  
Enhanced phase-change heat transfer  
boiling, freezing, and thawing

**Projects ( started from 2013 )**

1. 提高好氧顆粒穩定性的策略研究  
**Lee, Duu-Jong**, sponsored by NSC, #NSC 101-2221-E-011-096-MY3  
NT\$ 1,089,000, 08/01/2013-07/31/2014
2. 以 Pseudomonas sp. C27 反硝化菌進行自營-異營反硝化  
**Lee, Duu-Jong**, sponsored by NSC, #NSC 101-2221-E-011-059-MY3  
NT\$ 1,115,000, 08/01/2013-07/31/2014
3. 具抗氧化或抗發炎功能之微藻美容保養品開發(3/3)  
**Lee, Duu-Jong**, sponsored by NSC and Ladies, #NSC 101-2622-E-011-002-CC2  
NT\$ 6,358,044, 09/01/2013-08/31/2014
4. 提昇生質能源研究國際影響力計劃(1/3)  
**Lee, Duu-Jong**, sponsored by NSC, #NSC 102-2911-I-011-502  
NT\$ 766,820, 01/01/2013-12/31/2013
5. 102 年度東南亞區域共同研究暨培訓型國際合作計畫-生質燃料技術與永續環境  
**Lee, Duu-Jong**, sponsored by NSC, #NSC 102-2911-I-002-097  
NT\$ 2,000,000, 01/01/2013-12/31/2013
6. 國家型科技計畫微藻生質能產業橋接技術之開發  
**Lee, Duu-Jong**, sponsored by NSC, #NSC 102-3113-P-006-016  
NT\$ 1,000,000, 02/01/2013-12/31/2013

**Journal Papers**

1. Liu, X., **Lee, Duu-Jong**, Thermodynamic parameters for adsorption equilibrium of heavy metals and dyes from wastewaters. Bioresource Technology, in press.

2. Liu, X., Chen, G.R., **Lee, Duu-Jong**, Kawamoto, T., Tanaka, H., Chen, M.L., Luo, Y.K. Adsorption removal of cesium from drinking waters: A mini review on use of biosorbents and other adsorbents. *Bioresource Technology*, in press.
3. Song, W.J., Oan, X.L., Mu, S.Y., Zhang, D.Y., Yang, X., **Lee, Duu-Jong**, Biosorption of Hg(II) onto goethite with extracellular polymeric substances. *Bioresource Technology*, in press.
4. **Lee, Duu-Jong**, Liu, X., Weng, H.L. Sulfate and organic carbon removal by microbial fuel cell with sulfate-reducing bacteria and sulfide-oxidizing bacteria anodic biofilm. *Bioresource Technology*, in press.
5. Xu, X.J., Chen, C., Wang, A.J., Guo, W.Q., Zhou, X., **Lee, Duu-Jong**; Ren, N.Q., Chang, J.S. Simultaneous removal of sulfide, nitrate and acetate under denitrifying sulfide removal condition: Modeling and experimental validation. *Journal of Hazardous Materials*, 2014, 264, 16-24.
6. Wan, C.L., Yang, X., **Lee, Duu-Jong**; Liu, X., Sun, S.P., Chen, C. Partial nitrification of wastewaters with high NaCl concentrations by aerobic granules in continuous-flow reactor. *Bioresource Technology*, 2014, 152, 1-6.
7. Chen, C., Liu, L.H., **Lee, Duu-Jong**; Guo, W.Q., Wang, A.J., Xu, X.J., Zhou, X., Wu, D.H., Ren, N.Q. Integrated simultaneous desulfurization and denitrification (ISDD) process at various COD/sulfate ratios. *Bioresource Technology*, 2014, 155, 161-169.
8. Guo, H.L., Chen, C. **Lee, Duu-Jong**; Wang, A.J., Ren, N.Q. 2014. Proteomic analysis of sulfur-nitrogen-carbon removal by *Pseudomonas* sp. C27 under micro-aeration condition. *Enzyme and Microbial Technology*, 2014, 152, 557-561.
9. Yu, X.N., Wan, C.L., Lei, Z.F., Liu, X., Zhang, Y., Tay, J.H., **Lee, Duu-Jong**. Use of aerobic granules for treating synthetic high-strength ammonium wastewaters. *Environmental Technology* in press.
10. Wan, C.L., Yang, X., **Lee, Duu-Jong**, Sun, S.P., Liu, X., Zhang, P. Influence of hydraulic retention time (HRT) on partial nitrification of continuous-flow reactor aerobic granular-sludge reactor. *Environmental Technology* in press.
11. **Lee, Duu-Jong**; Wong, B.T.; Adav, S.S. *Azoarcus taiwanensis* sp. nov., a denitrifying species isolated from a hot spring. *Applied Microbiology and Biotechnology* in press.
12. Hsu, C.; **Lee, Duu-Jong**; Hsu, J.P.; Wang, N.; Tseng S.J. Electrophoresis of pH-regulated particles in the presence of multiple ionic species. *AIChE Journal*, in press.
13. Wan, C.L.; Yang, X.; **Lee, Duu-Jong**; Wang, X.Y.; Yang, Q.L.; Pan, X.L. Aerobic granulation of aggregating consortium X9 isolated from aerobic granules and role of cyclic di-GMP. *Bioresource Technology*, in press.
14. Ho, S.H.; Chan, M.C.; Liu, C.C.; Chen, C.Y.; Lee, W.L.; **Lee, Duu-Jong**; Chang, J.S. Enhanced lutein productivity of an indigenous Microalga *Scenedesmus obliquus* FSP-3 using light-related strategies. *Bioresource Technology*, 2014, 152, 275-282.
15. Achal, V.; Pan, X.L.; **Lee, Duu-Jong**; Kumari, D.; Zhang, D.Y. remediation of Cr(VI) from chromium slag by biocementation. *Chemosphere* 2013, 93, 1352-1358.(SCI, EI)

16. Chen, C.Y.; Kao, P.C.; Tsai, C.J.; **Lee, Duu-Jong**; Chang, J.S. Engineering strategies for simultaneous enhancement of C-phycoerythrin production and CO<sub>2</sub> fixation with *Spirulina platensis*. *Bioresource Technology* 2013, 145, 307-312.(SCI, EI)
17. Wang, X.D.; Wang, Z.X.; Duan, Y.Y.; An, B.; **Lee, Duu-Jong**; Efficient evaluation of thermodynamic properties of water and steam on p-h surface. *Journal of the Taiwan Institute of Chemical Engineers* in press.(SCI, EI)
18. Wong, B.T.; **Lee, Duu-Jong**; *Pseudomonas yanmingensis* sp. nov., an alkaliphilic denitrifying species isolated from a hot spring. *Journal of Bioscience and Bioengineering*, in press.(SCI, EI)
19. Nguyen, T.L.; **Lee, Duu-Jong**; Chang, J.S.; Liu, J.C. Effects of ozone and peroxone on algal separation via dispersed air flotation. *Colloids and Surface B* 2013, 105, 246-250.(SCI, EI)
20. Pranowo, R.; **Lee, Duu-Jong**; Liu, J.C.; Chang, J.S. Effect of O<sub>3</sub> and O<sub>3</sub>/H<sub>2</sub>O<sub>2</sub> on algae harvesting using chitosan, *Water Science and Technology* 2013, 67, 1294-1301.(SCI, EI)
21. Wang, L.; **Lee, Duu-Jong**; Ma, F.; Wang, A.J.; Ren, N.Q. Biofloculants from isolated strain or mixed culture: Role of phosphate salts and Cs<sup>2+</sup> ions. *Journal of the Taiwan Institute of Chemical Engineers*, in press.(SCI, EI)
22. Yu, X.; Wan, C.L.; Lei, Z.; Liu, X.; Zhang, Y.; **Lee, Duu-Jong**; Tay, J.H. Adsorption of ammonium by aerobic granules under high ammonium levels. *Journal of the Taiwan Institute of Chemical Engineers*, in press.(SCI, EI)
23. Chou, T.Y.; Whiteley, C.G.; **Lee, Duu-Jong**; Liao, Q. Control of dual-chambered microbial fuel cell by anodic potential: Implications with sulfate reducing bacteria. *International Journal of Hydrogen Energy*, 2013, 38, 15580-15589.(SCI, EI)
24. Liao, Q.; Zhong, N.B.; Zhu, X.; Chen, R.; Wang, Y.Z.; **Lee, Duu-Jong**; Enhancement of hydrogen production by adsorption of *Rhodospirillum rubrum* CQK 01 on a new support material. *International Journal of Hydrogen Energy*, 2013, 38, 15730-15737.(SCI, EI)
25. Liu, L.H.; Tsyganova, O.; **Lee, Duu-Jong**; Chang, J.S.; Wang, A.J.; Ren, N.Q. Doublechamber microbial fuel cells started up under room and low temperatures. *International Journal of Hydrogen Energy*, 2013, 38, 15574-15579.(SCI, EI)
26. Xu, Z.; Chen, C.; **Lee, Duu-Jong**; Wang, A.J.; Guo, W.Q.; Zhou, X.; Guo, H.; Yuan, Ren, N.Q. Chang, J.S. Sulfate-reduction, sulfide-oxidation and elemental sulfur bioreduction process: Modeling and experimental validation. *Bioresource Technology* 2013, 147, 202-211.(SCI, EI)
27. Lin, L.; Wan, C.; Liu, X.; Lei, Z.; **Lee, Duu-Jong**; Zhang, Y.; Tay, J.H.; Zhang, Z. Anaerobic digestion of swine manure under natural zeolite addition: VFA evolution, cation variation, and related microbial diversity. *Applied Microbiology and Biotechnology*, 2013, in press.(SCI, EI)
28. Dang, T.H.; Chen, B.H.; **Lee, Duu-Jong**; Application of kaolin-based catalyst in biodiesel production via transesterification of vegetable oils in excess methanol. *Bioresource Technology* 2013, 145, 175-181.(SCI, EI)

29. Wang, Y.Y.; Chou, H.Y.; Chen, B.H.; **Lee, Duu-Jong**; Optimization of sodium loading on zeolite support for catalyzed transesterification of triolein with methanol. *Bioresource Technology* 2013, 145, 248-253.(SCI, EI)
30. Wan, C.L.; Zhang, P.; **Lee, Duu-Jong**; Yang, X.; Liu, X.; Sun, S.; Pan, X.L. Disintegration of aerobic granules: Role of second messenger cyclic di-GMP. *Bioresource Technology* 2013, 146, 330-335.(SCI, EI)
31. He, P.J.; Mao, B.; Shao, L.M.; **Lee, Duu-Jong**; Chang, J.S. The combined effect of bacteria and *Chlorella vulgaris* on the treatment of municipal wastewaters. *Bioresource Technology* 2013, 146, 562-568.(SCI, EI)
32. Chen, C.; Ho, K.L.; Liu, F.C.; Ho, M.N.; Wang, A.J.; Ren, N.Q. **Lee, Duu-Jong**; Autotrophic and heterotrophic denitrification by a newly isolated strain *Pseudomonas* sp. C27. *Bioresource Technology* 2013, 145, 351-356.(SCI, EI)
33. Wang, H.; Chen, F.; Mu, S.; Zhang, D.; Pan, X.L.; **Lee, Duu-Jong**; Chang, J.S. removal of antimony (Sb(V)) from Sb mine drainage: Biological sulfate reduction and sulfide oxidation-precipitation. *Bioresource Technology* 2013, 146, 799-802.(SCI, EI)
34. Whitely, C.G.; **Lee, Duu-Jong**; Enzymes of energy. Structure computational analysis, substrate association and product dissociation from the thermophilic esterase of *Alicyclobacillus acidocaldarius*: implications in biodiesel production. *Journal of Molecular Catalysis B* 2013, 97, 156-168.(SCI, EI)
35. Chen, Chun-Yen; Zhao, Xin-Qing; Yen, Hong-Wei; Ho, Shih-Hsin; Cheng, Chieh-Lun; **Lee, Duu-Jong**; Bai, Feng-Wu; Chang, Jo-Shu. Microalgae-based carbohydrates for biofuel production. *Biochemical Engineering Journal*, 2013, 78, 1-10.(SCI, EI)
36. Chang, Jo-Shu; **Lee, Duu-Jong**. Biorefineries, Biomaterials, and bio-based functional chemicals. *Biochemical Engineering Journal*, 2013, 78, 3 (SCI, EI)
37. Chan, Ming-Chang; Ho, Shih-Hsin; **Lee, Duu-Jong**; Chen, Chun-Yen; Huang, Chieh-Chen; Chang, Jo-Shu. Characterization, extraction and purification of lutein produced by an indigenous microalga *Scenedesmus obliquus* CNW-N. *Biochemical Engineering Journal*. 2013, 78, 24-31.(SCI, EI)
38. Nanda, Julia; Whiteley, Chris G.; Chang, Jo-Shu; **Lee, Duu-Jong**. Production of elemental sulfur from sulfide and nitrate-laden wastewaters by methanogenic culture via sulfide denitrifying removal process. *Biochemical Engineering Journal*, 2013, 78, 128-131 (SCI, EI)
39. Lv, Yi; Wan, Chunli; Liu, Xiang; Zhang, Yi; **Lee, Duu-Jong**; Tay, Joo-Hwa. Drying and re-cultivation of aerobic granules. *Bioresource Technology* 2013, 129, 700-703.(SCI, EI)
40. Lv, Yi; Wan, Chunli; Liu, Xiang; Zhang, Yi; **Lee, Duu-Jong**; Tay, Joo-Hwa. Freezing of aerobic granules for storage and subsequent recovery. *Journal of the Taiwan Institute of Chemical Engineers*. 2013, 44, 770-773 (SCI, EI)
41. **Lee, Duu-Jong**; Wong, Bing-Teo. Methanogenic activities of sulfide and nitric oxide amended mesophilic, methanogenic culture: Role of nitrososulfides complex. *Bioresource Technology* 2013, 142, 63-68. (SCI, EI)

42. Wan, Chunli; Sun, Supu; **Lee, Duu-Jong**; Liu, Xiang; Wang, Li; Yang, Xue; Pan, Xiangliang. Partial nitrification using aerobic granules in continuous-flow reactor: Rapid startup. *Bioresource Technology* 2013, 142, 517-522.(SCI, EI)
43. Utomo, Rhesa Pramudita; Chang, Yin-Ru; **Lee, Duu-Jong**; Chang, Jo-Shu. Lutein recovery from *Chlorella* sp ESP-6 with coagulants. *Bioresource Technology* 2013, 139, 176-180.(SCI, EI)
44. Dang-Thuan Tran; Bich-Hanh Le; **Lee, Duu-Jong**; Chen, Ching-Lung; Wang, Hsiang-Yu; Chang, Jo-Shu. Microalgae harvesting and subsequent biodiesel conversion. *Bioresource Technology* 2013, 140, 179-186 (SCI, EI)
45. Show, Kuan-Yeow; **Lee, Duu-Jong**; Pan, Xiangliang. Simultaneous biological removal of nitrogen-sulfur-carbon: Recent advances and challenges. *Biotechnology Advances*. 2013, 31, 409-420.(SCI, EI)
46. Guo, Hongliang; Chen, Chuan; **Lee, Duu-Jong**; Wang, Aijie; Ren, Nanqi. Sulfur-nitrogen-carbon removal of *Pseudomonas* sp C27 under sulfide stress. *Enzyme and Microbial Technology* 2013, 53, 6-12.(SCI, EI)
47. Wang, Xiao-Dong; An, Bin; Lin, Lin; **Lee, Duu-Jong**. Inverse geometric optimization for geometry of nanofluid-cooled microchannel heat sink. *Applied Thermal Engineering* 2013, 55, 87-94.(SCI, EI)
48. Liang, Bin; Cheng, Hao-Yi; Kong, De-Yong; Gao, Shu-Hong; Sun, Fei; Cui, Dan; Kong, Fan-Ying; Zhou, Ai-Juan; Liu, Wen-Zong; Ren, Nan-Qi; Wu, Wei-Min; Wang, Ai-Jie; **Lee, Duu-Jong**. Accelerated reduction of chlorinated nitroaromatic antibiotic chloramphenicol by biocathode. *Environmental Science & Technology*. 2013, 47, 5353-5361 (SCI, EI)
49. Lin, Lin; Wan, Chunli; Liu, Xiang; **Lee, Duu-Jong**; Lei, Zhongfang; Zhang, Yi; Tay, Joo Hwa. Effect of initial pH on mesophilic hydrolysis and acidification of swine manure. *Bioresource Technology*, 2013, 136, 302-308 (SCI, EI)
50. **Lee, Duu-Jong**; Show, Kuan-Yeow; Wang, Aijie; Unconventional approaches to isolation and enrichment of functional microbial consortium - A review. *Bioresource Technology* 2013, 136, 697-706 (SCI, EI)
51. Yen, Hong-Wei; Hu, I. -Chen; Chen, Chun-Yen; Ho, Shih-Hsin; **Lee, Duu-Jong**; Chang, Jo-Shu. Microalgae-based biorefinery - From biofuels to natural products *Bioresource Technology* 2013, 135, 166-174.(SCI, EI)
52. Show, Kuan-Yeow; **Lee, Duu-Jong**; Chang, Jo-Shu. Algal biomass dehydration. *Bioresource Technology* 2013, 135, 720-729 (SCI, EI)
53. Truc Linh Nguyen; **Lee, Duu-Jong**; Chang, J. S.; Liu, J. C. Effects of ozone and peroxone on algal separation via dispersed air flotation. *Colloids and Surfaces B* 2013, 105, 246-250. (SCI, EI)
54. Wang, Li; Wan, Chun Li; **Lee, Duu-Jong**; Tay, Joo-Hwa; Chen, X. F.; Liu, Xiang; Zhang, Yi. Adsorption-desorption of strontium from waters using aerobic granules. *Journal of the Taiwan Institute of Chemical Engineers*. 2013, 44, 454-457.(SCI, EI)

55. Song, Wenjuan; Zhang, Daoyong; Pan, Xiangliang; **Lee, Duu-Jong**. Complexation of HSA with different forms of antimony (Sb): An application of fluorescence spectroscopy. *Journal of Luminescence*. 2013, 136, 80-85.(SCI, EI)
56. **Lee, Duu-Jong**; Pan, Xiangliang; Wang, Aijie; Ho, Kuo-Lin; Facultative autotrophic denitrifiers in denitrifying sulfide removal granules. *Bioresource Technology*. 2013, 132, 356-360 (SCI, EI)
57. Chiang, Andrew Cheng-Ting; Lin, Justin Chun-Te; Wijayanti, Dewi Ratna; **Lee, Duu-Jong**. Boron removal with UTC-series reverse osmosis filtration, *Journal of the Taiwan Institute of Chemical Engineers*, 2013, 44, 317-321 (SCI, EI)
58. Hsu, Chien; Lo, Ting-Wen; **Lee, Duu-Jong**; Hsu, Jyh-Ping. Electrophoresis of a charge-regulated Zwitterionic particle: Influence of temperature and bulk salt concentration. *Langmuir*. 2013, 29, 2427-2433 (SCI, EI)
59. Wang, Shuzhi; Chen, Fulong; Mu, Shuyong; Zhang, Daoyong; Pan, Xiangliang; **Lee, Duu-Jong**;. Simultaneous analysis of photosystem responses of *Microcystis aeruginosa* under chromium stress. *Ecotoxicology and Environmental Safety*. 2013, 88, 163-168
60. Liang, Bin; Yao, Qian; Cheng, Haoyi; Gao, Shuhong; Kong, Fanying; Cui, Dan; Guo, Yuqi; Ren, Nanqi; **Lee, Duu-Jong**; Wang, Aijie Enhanced degradation of azo dye alizarin yellow R in a combined process of iron-carbon microelectrolysis and aerobic bio-contact oxidation. *Environmental Science and Pollution Research* 2013, 20, 1206
61. **Lee, Duu-Jong**. Dewatering of Wet Materials, *Drying Technology*, 2013, 31, 131 (SCI, EI)
62. **Lee, Duu-Jong**; Su, Ay; Mujumdar, Arun S. Bound Water Content in Wet Materials. *Drying Technology*, 2013, 31, 202-206 (SCI, EI)
63. **Lee, Duu-Jong**; Chen, Gwan-Yu; Chang, Yin-Ru; Mujumdar, Arun S.; Chang, Jo-Shu; Cyclic filtration-cleaning of *Chlorella vulgaris* using surface-modified hydrophilic polytetrafluoroethylene membrane with polyaluminum chloride as coagulant. *Drying Technology* 2013, 31, 207-212.(SCI, EI)
64. Zhou, Xu; Chen, Chuan; Wang, Aijie; Jiang, Guangming; Liu, Lihong; Xu, Xijun; Yuan, Ye; **Lee, Duu-Jong**; Ren, Nanqi. Biosorption of Cu(II) by powdered anaerobic granular sludge from aqueous medium. *Water Science and Technology* 2013, 68, 91-98 (SCI, EI)
65. Pranowo, R.; **Lee, Duu-Jong**; Liu, J. C.; Chang, J. S. Effect of O-3 and O-3/H<sub>2</sub>O<sub>2</sub> on algae harvesting using chitosan *Water Science and Technology*, 2013, 67, 1294-1301(SCI, EI)
66. Zhang, Daoyong; **Lee, Duu-Jong**; Pan, Xiangliang. Desorption of Hg(II) and Sb(V) on extracellular polymeric substances: Effects of pH, EDTA, Ca(II) and temperature shocks. *Bioresource Technology*, 2013, 128, 711-715.(SCI, EI)
67. Lei, Zhongfang; Wu, Ting; Zhang, Yi; Liu, Xiang; Wan, Chunli; **Lee, Duu-Jong**; Tay, Joo-Hwa. Two-stage soil infiltration treatment system for treating ammonium wastewaters of low COD/TN ratios. *Bioresource Technology*. 2013, 128, 774-778.(SCI, EI)
68. **Lee, Duu-Jong**; Jangam, Sachin; Mujumdar, Arun S. Some recent advances in drying technologies to produce particulate solids *KONA* 2013, 3-, 69-83.

69. **Lee, Duu-Jong**; Cheng, Ya-Ling; Wong, Ruei-Jyun. Characteristics of natural organic matters in raw and treated drinking water: Comparison study. *Journal of the Taiwan Institute of Chemical Engineers*. 2013, 44, 103-110 (SCI, EI)
70. **Lee, Duu-Jong**; Lee, Chin-Yu; Chang, Jo-Shu. Treatment and electricity harvesting from sulfate/sulfide-containing wastewaters using microbial fuel cell with enriched sulfate-reducing mixed culture. *Journal of Hazardous Materials*. 2012, 243, 67-72 (SCI, EI)
71. Wirawan, Ferdian; Cheng, Chieh-Lun; Kao, Wei-Chen; **Lee, Duu-Jong**; Chang, Jo-Shu. Cellulosic ethanol production performance with SSF and SHF processes using immobilized *Zymomonas mobilis*. *Applied Energy*. 2012, 100, 19-26.
72. Liu, Chien-Hung; Huang, Chien-Chang; Wang, Yao-Wen; **Lee, Duu-Jong**; Chang, Jo-Shu. Biodiesel production by enzymatic transesterification catalyzed by *Burkholderia lipase* immobilized on hydrophobic magnetic particles. *Applied Energy*. 2012, 100, 41-46
73. Wang, Xiao-Dong; An, Bin; Duan, Yuan-Yuan; Wang, Zhi-Xue; **Lee, Duu-Jong**. Efficient and accurate computation scheme of p-T thermodynamic properties of water and steam. *Journal of the Taiwan Institute of Chemical Engineers*, 2012, 43, 845-851.
74. **Lee, Duu-Jong**; Chen, Gwan-Yu; Chang, Yin-Ru; Lee, Kueir-Rarn. Harvesting of chitosan coagulated *Chlorella vulgaris* using cyclic membrane filtration-cleaning. *Journal of the Taiwan Institute of Chemical Engineers*. 2012, 43, 948-952.
75. Yang, Xue; Du, Maoan; **Lee, Duu-Jong**; Wan, Chunli; Chen, Chuan; Wan, Fang. Enriching polyhydroxyalkanoates (PHA) producing microorganisms by complex organics from quickly alkaline fermentation liquor. *Journal of the Taiwan Institute of Chemical Engineers*, 2012, 43, 953-957.
76. Liao, Qiang; Qu, Xiao-Fan; Chen, Rang; Wang, Yang-Zhong; Zhu, Xun; **Lee, Duu-Jong**. Improvement of hydrogen production with *Rhodospseudomonas palustris* CQK-01 by Ar gas sparging. *International Journal of Hydrogen Energy*, 2012, 37, 15443-15449
77. Wang, Yong-Zhong; Xie, Xue-Wang; Zhu, Xun; Liao, Qiang; Chen, Rong; Zhao, Xu; **Lee, Duu-Jong**. Hydrogen production by *Rhodospseudomonas palustris* CQK 01 in a continuous photobioreactor with ultrasonic treatment. *International Journal of Hydrogen Energy*. 2012, 37, 15450-15457
78. Liu, Chien-Hung; Chang, Chin-Yen; Cheng, Chieh-Lun; **Lee, Duu-Jong**; Chang, Jo-Shu. Fermentative hydrogen production by *Clostridium butyricum* CGS5 using carbohydrate-rich microalgal biomass as feedstock. *International Journal of Hydrogen Energy*. 2012, 37, 15458-15464
79. Ho, Kuo-Ling; **Lee, Duu-Jong**; Su, Ay; Chang, Jo-Shu. Biohydrogen from lignocellulosic feedstock via one-step process *International Journal of Hydrogen Energy*, 2012, 37, 15569-15574
80. Ho, Kuo-Ling; **Lee, Duu-Jong**; Su, Ay; Chang, Jo-Shu. Biohydrogen from cellulosic feedstock: Dilution-to-stimulation approach *International Journal of Hydrogen Energy*. 2012, 37, 15582-15587

81. Liao, Qiang; Wang, Ye-Jun; Wang, Yong-Zhong; Chen, Rong; Zhu, Xun; Pu, Yu-Kang; **Lee, Duu-Jong**. Two-dimension mathematical modeling of photosynthetic bacterial biofilm growth and formation. *International Journal of Hydrogen Energy*, 2012, 37, 15607-15615
82. Show, K. Y.; **Lee, Duu-Jong**; Tay, J. H.; Lin, C. Y.; Chang, J. S.. Biohydrogen production: Current perspectives and the way forward *International Journal of Hydrogen Energy* 2012, 37, 15616-15631
83. **Lee, Duu-Jong**; Liao, Guan-Yu; Chang, Yin-Ru; Chang, Jo-Shu. Chitosan coagulation-membrane filtration of *Chlorella vulgaris* *International Journal of Hydrogen Energy*. 2012, 37, 15643-15647
84. Zhu, Xun; Guo, Cheng-Long; Wang, Yong-Zhong; Liao, Qiang; Chen, Rong; **Lee, Duu-Jong**. A feasibility study on unsaturated flow bioreactor using optical fiber illumination for photo-hydrogen production. *International Journal of Hydrogen Energy*, 2012, 37, 15666-15671
85. Chou, Chang-Chen; **Lee, Duu-Jong**; Chen, Bing-Hung. Hydrogen production from hydrolysis of ammonia borane with limited water supply. *International Journal of Hydrogen Energy*. 2012, 37, 15681-15690
86. Wang, Xiao-Dong; Xu, Jin-Liang; **Lee, Duu-Jong**. Parameter sensitivity examination for a complete three-dimensional, two-phase, non-isothermal model of polymer electrolyte membrane fuel cell. *International Journal of Hydrogen Energy* 2012, 37, 15766-15777
87. Wang, Xiao-Dong; Lu, Gui; Duan, Yuan-Yuan; **Lee, Duu-Jong**. Numerical analysis on performances of polymer electrolyte membrane fuel cells with various cathode flow channel geometries. *International Journal of Hydrogen Energy*. 2012, 37, 15778-15786
88. Liu, Lihong; Tsyganova, Olga; **Lee, Duu-Jong**; Su, Ay; Chang, Jo-Shu; Wang, Aijie; Ren, Nanqi. Anodic biofilm in single-chamber microbial fuel cells cultivated under different temperatures. *International Journal of Hydrogen Energy* 2012, 37, 15792-15800
89. Wang, Xiao-Dong; Yan, Wei-Mon; Won, Wen-Chung; **Lee, Duu-Jong**. Effects of operating parameters on transport phenomena and cell performance of PEM fuel cells with conventional and contracted flow field designs. *International Journal of Hydrogen Energy*, 2012, 37, 15808-15819
90. Lee, Chin-Yu; Ho, Kuo-Ling; **Lee, Duu-Jong**; Su, Ay; Chang, Jo-Shu. Electricity harvest from nitrate/sulfide-containing wastewaters using microbial fuel cell with autotrophic denitrifier, *Pseudomonas* sp C27. *International Journal of Hydrogen Energy* 2012, 37, 15827-15832
91. Chen, Chuan; Zhou, Xu; Wang, Aijie; Wu, Dong-hai; Liu, Li-hong; Ren, Nanqi; **Lee, Duu-Jong**. Elementary sulfur in effluent from denitrifying sulfide removal process as adsorbent for zinc(II). *Bioresource Technology*, 2012, 121, 441-444
92. Ran, Yao; Wang, Yong-Zhong; Liao, Qiang; Zhu, Xun; Chen, Rong; **Lee, Duu-Jong**; Wang, Yan-Mei. Effects of operation conditions on enzymatic hydrolysis of high-solid rice straw. *International Journal of Hydrogen Energy*, 2012, 37, 13660-13666



93. Zhang, Guodong; Wang, Kun; Zhao, Qingliang; Jiao, Yan; **Lee, Duu-Jong**, Effect of cathode types on long-term performance and anode bacterial communities in microbial fuel cells. *Bioresource Technology*, 2012, 118, 249-256
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### Books & Book Chapters

1. **李篤中**, “論文與研究六講. 工程篇”, 國立台灣大學熱傳遞實驗室出版 (2009) ISBN 978-986-01-8018-3
2. *Biofuels from Algae*, ed. Pandey, A.; **Lee, Duu-Jong**; Chisti, Y.; Soccol, C.R. Elsevier, London, 2014.
3. Show, K.Y.; **Lee, Duu-Jong**; Algal biomass harvesting. In *Biofuels from Algae*. Elsevier, 2014.
4. Show, K.Y.; **Lee, Duu-Jong**; Production of biohydrogen from microalgae. In *Biofuels from Algae*. Elsevier, London 2014.
5. Show, K.Y.; **Lee, Duu-Jong**; Bioreactor and bioprocess design for biohydrogen production. In *Biohydrogen*. Elsevier, London 2013.

### Patents

1. **李篤中**、張慶源、呂宸宇、簡東昇、謝哲隆, “利用二氧化碳處理廢棄物之裝置,” 中華民國專利 157793 (2001/06/11-2019/01/27)
2. 張慶源、**李篤中**、李弘、邱浚祐、於幼華、顧洋, “電鍍程序廢液之處理方法,” 中華民國專利 169030 (2002/11/21-2019/06/21)
3. 張慶源、**李篤中**、謝哲隆, “多階段熱處理搭配添加劑以處理廢棄物之方法,” 中華民國專利 173226 (2003/02/21-2021/06/10).
4. J. H. Tay, **Duu-Jong Lee**, T. D. Liang, and C. P. Chu, “Improved Biological Production of Hydrogen And Co-production of Methane”, Singapore Patent 200205509

5. **李篤中、鄭俊華、梁迪、朱敬平** “生物產氫及共同產生甲烷的改良方法” 中華民國專利 1308904 (2009/04/21-2024/06/10).

### **Technology Transfer**

1. 技術移轉-具抗氧化或抗發炎功能之微藻美容保養品, **李篤中**, 蕾迪斯, 新台幣 134 萬元(2011/05/01)
2. 技術移轉-具抗氧化或抗發炎功能之微藻美容保養品, **李篤中**, 蕾迪斯, 新台幣 134 萬元(2012/05/01)

### **Honors and Others**

1. JOURNAL EDITORIAL: Editor-in-Chief of Journal of the Chinese Institute of Chemical Engineers (Elsevier, SCI, 2006/07-2009/05); Advisory Editor of Journal of the Taiwan Institute of Chemical Engineers (Elsevier, SCI, 2009-now); International Advisory Board member of Journal of Thermal Science (中國科學院, EI, 2000-now); Chair of Working Task Group of Decision Making Map of Sludge Management, International Water Association (2002-2008); Regional Editor of Heat Transfer Asian Research (Wiley, EI) (2002-now); Editorial Board member of Chemical Engineering Science (Elsevier, SCI,EI, 2002-now); Guest Editor and Editorial Board member of Separation Science and Technology (Taylor & Francis, SCI,EI, 2002-now); Editorial Board member of Journal of Residues Science & Technology (DecTech Pub, SCI, 2004-now); Guest Editor and Editorial Board member of Drying Technology (Taylor & Francis, SCI,EI, 2005-now); Editor of Advanced Powder Technology (Elsevier, SCI, 2005-now); Editorial Board member of 中國給水排水 (中國建設部 EI, 2006-now); Guest Editor of Desalination (Elsevier, SCI,EI, 2008); Associate Editor and Editorial Board member of Bioresource Technology (Elsevier, SCI,EI, 2009-now); Editorial Board member of Applied Energy (Elsevier, SCI,EI, 2012-now); Guest Editor of Applied Biotechnology and Bioengineering (Elsevier, SCI,EI, 2012); Guest Editor of Biochemical Engineering Journal (Elsevier, SCI,EI, 2012).
2. VISITING APPOINTMENT: Visiting Professor (Nanyang Technological University, 2000-2007); 客座教授 (同濟大學, 2005-now); 客座教授 (天津大學, 2006-now); 兼職博士生導師 (哈爾濱工業大學, 2006-now);客座教授 (Hokkaido University, 2007-now); Visiting Processor (Hokkaido University, 2008); Visiting Professor (National University of Singapore, 2009); 客座教授 (重慶大學, 2008-now); 兼任講

座教授 (中原大學, 2008-2011); 特約講座教授 (逢甲大學, 2008-now); 講座教授 (國立中興大學, 2010-now); 特聘教授 (復旦大學, 2010-now)

3. PROFESSIONAL SERVICE: 行政院國家科學委員會(NSC)複審委員; 行政院大陸委員會複審委員(2004-now); 行政院經濟部評審委員(2004-now); 觀察員(國際經濟合作組織 OECD, 國際能源局 IEA, Hydrogen Implementing Agreement) (2005-now); 台灣化學工程學會會誌及論文委員會主任委員(2006/7-2009/6); 台灣化學工程師學會副理事長 (2010-2012); 台灣化學工程師學會理事長 (2013-);
4. AWARD: 特約研究員(行政院國家科學委員會, 2002-2008); 賴再得獎(中國化學工程師學會, 1999); 最佳論文獎(日本化學工程師學會, 2002); 青年獎章(中國青年救國團, 2002); 十大傑出青年(國際青商會, 2002); 最佳論文獎(中國化學工程師學會, 1997, 2003); 最佳論文獎(中國工程師學會, 2003); 傑出工程教授(中國工程師學會, 2004); 石延平教授論文獎(台灣化學工程學會, 2006); 長江學者講座教授(中華人民共和國教育部, 2007-2009); 國立臺灣大學終身特聘教授(2006-now); 傑出特約研究獎(行政院國家科學委員會, 2008) ; Top Reviewer (Bioresource Technology, Elsevier, 2009); 中山學術文化基金會學術著作獎(2010); Taylor & Francis Award(2011); 第十屆有庠科技講座-綠色科技類講座教授 (2012); 教育部學術獎(2013)

