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Professor

B.S. in Chemical Engineering
National Taiwan University, 1991
M.S. in Chemical Engineering
National Taiwan University, 1994
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Research and Professional Interests

Functional Membrane Materials
Membrane Filtration Mechanism
Membrane Module Design
Multi-scale Simulation
Water Treatment and Desalination
Salinity-gradient Blue Energy

Journal Papers

1. Wang, H.-Y., **K.L. Tung** and J.D. Ward* (2017) "Design and Economic Analysis of Membrane-assisted Crystallization Processes," *J. Taiwan Inst. Chem. Eng.*, 81, 159-169.
2. Pan, R.H., Y.R. Chen, **K.L. Tung** and H. Chang* (2017) "Experimental and Simulation Study of a Novel Hybrid Absorption and Stripping Membrane Contactor for Carbon Capture," *J. Taiwan Inst. Chem. Eng.*, 81, 47-56.
3. Wu, H.C., T. Yoshioka*, K. Nakagawa, T. Shintani, T. Tsuru, D. Saeki, Y.R. Chen, **K.L. Tung** and H. Matsuyama (2017) "Water Transport and Ion Rejection Investigation for Application of Cyclic Peptide Nanotubes to Forward Osmosis Process: A Simulation Study," *Desalination*, 424, 85-94.
4. Chen, Z.H., Y.R. Chen., K.S. Chang, L.H. Chen, Y.F. Lin and **K.L. Tung*** (2017) "Exploration of the Nanostructures and Separation Properties of Cross-Linked Mixed Matrix Membranes using Multiscale Modeling," *J. Membrane Sci.*, 543, 328-334.
5. Chen, L.H., Y.R. Chen, C.Y. Chou, C.H. Chen, C.C. Ko and **K.L. Tung*** (2017) "Inorganic Membranes in Water and Wastewater Treatment," Chapter 5 in *Sustainable Membrane Technology for Water and Wastewater Treatment*, edited by A. Figoli and A. Criscuoli, pp.121-154, Springer (ISBN: 978-981-10-5621-5).
6. Wu, S.E, K.J. Hwang*, T.W. Cheng*, Y.C. Lin and **K.L. Tung** (2017) "Dynamic Membranes of Powder-Activated Carbon for Removing Microbes and Organic Matter from Seawater," *J. Membrane Sci.*, 541, 189-197.
7. Tsai, J.H., F. Macedonio, E. Drioli, L. Giorno, C.Y. Chou, F.C. Hu, C.L. Li, C.J. Chuang and **K.L. Tung*** (2017) "Membrane-based Zero Liquid Discharge: Myth or Reality? (Review article)" *J. Taiwan Inst. Chem. Eng.*, 80, 192-202 (**Invited Review**).
8. Wu, S.E, K.J. Hwang*, T.W. Cheng*, T.C. Hung and **K.L. Tung** (2017) "Effectiveness of a Hydrocyclone in Separating Particles Suspended in Power Law Fluids," *Powder Technol.*, 320, 546-554.
9. Lin, Y.K., V.-H. Nguyen, J. C.-C. Yu, J. C.-S. Wu*, K. C.-W. Wu, **K.L. Tung** and C.L. Chen (2017) "Biodiesel Production by Pervaporation-Assisted Esterification and Pre-Esterification Using Graphene Oxide/Chitosan Composite Membranes," *J. Taiwan Inst. Chem. Eng.*, 79, 23-30.
10. Kaneti, Y.V., S. Dutta, M.S.A. Hossain, M. Shiddiky, **K.L. Tung**, F.K. Shieh, C.K. Tsung, K. C.-W. Wu*, and Y. Yamauchi* (2017) "Strategies for Improving the

- Functionality of Zeolitic Imidazolate Frameworks: Tailoring Nanoarchitectures for Functional Applications,” *Adv. Materials.*, 182, 29(38) 1700213.
11. Wu, S.E., K.J. Hwang*, T.W. Cheng*, C.H. Chien and **K.L. Tung** (2017) “Integrating Microfiltration with Cocrystallization for Separating Glucose from Ethanol Aqueous Solution,” *J. Taiwan Inst. Chem. Eng.*, 78, 344-350.
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 14. **Tung, K.L.***, H.R. Damodar, R.A. Damodar, J.H. Tsai, C.H. Chen, S.J. You and M.S. Huang (2017) “Imaging the Effect of Aeration on Particle Fouling Mitigation in a Submerged Membrane Filtration System Using a Photointerrupt Sensor Array,” *Separa. Sci. Technol.*, 52(2), 228-239.
 15. Jana, K. K.*, J.S. Soesanto, A. Huang, S.J. Lue* and **K.L. Tung*** (2018) “Separator Membranes for High Energy-Density Batteries (Review Article),” *ChemBioEng Reviews*, 5(6), 346-371.
 16. Meenarathi, B., J. Jeyaselvi, S. Sowmiya, **K.L. Tung*** and R. Anbarasan* (2018) “Synthesis, Characterization and Drug Release Activity of Poly(epichlorohydrin-g-furosemide) System,” *Chem. Pap.*, 72(12), 2987-2996.
 17. Tsai, J.H., M. L. Perrotta, A. Gugliuzza, F. Macedonio, L. Giorno, E. Drioli, **K.L. Tung**, Elena Tocci* (2018) “Membrane Assisted Crystallization: A Molecular View of NaCl Nucleation and Growth,” *Applied Sci.-Basel*, 8(11), 2145.
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 20. Chen, C.H., L. Meng, **K.L. Tung*** and J.S. Lin* (2018) “Effect of Substrate Curvature on Gas Permeability of Alumina Hollow Fiber Supported MFI Zeolite Membranes,” *AIChE J.*, 64(9) 3419-3428.
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 22. Jeyaraman, P., D. Jeyabala, B. Meenarathi, **K.L. Tung*** and R. Anbarasan* (2018) “Synthesis, Characterization and Drug Release Activity of Structurally Modified Poly(vinyl alcohol),” *J. Appl. Polymer Sci.*, 135(32) 46620.
 23. Ko, C.C., A. Ali, E. Drioli*, **K.L. Tung***, Y.R. Chen, C.H. Chen and F. Macedonio (2018) “Performance of Ceramic Membrane in Vacuum Membrane Distillation and in Vacuum Membrane Crystallization,” *Desalination*, 440, 48-58.

24. Ponprapakaran, K., R. H. Subramani, R. Baskaran, **K.L. Tung*** and R. Anbarasan* (2018) "Synthesis, Spectral Analysis and Catalytic Activity of Poly(aniline-co-congored)/Metaloxide Nanocomposites," *J. Appl. Polymer Sci.*, 135(27) 46469.
25. Anbarasan, R.*, M. Jeyapriya, B. Meenarathi and **K.L. Tung*** (2018) "Low Temperature Splinting Activity and Catalytic Behavior of Nano Ag-doped Sulphamicacid Bridged Di-block Copolymer," *Polymers Adv. Technol.*, 29(7), 2025-2035.
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29. Huang, C.Y., C.C. Ko, C.T. Huang, **K.L. Tung** and Y.C. Liao* (2018) "A Simple Coating Method to Prepare Superhydrophobic Layers on Ceramic Alumina for Vacuum Membrane Distillation," *Separa. Puri. Technol.*, 198, 79-86.
30. **Tung, K.L.***, T.W. Cheng, B. Van der Bruggen and D.J. Lee (2018) "Filtering a Better Future: WFC12 Special Issue Forward," *Separa. Puri. Technol.*, 198, 1-2 **Guest Editor**.
31. Chen, H.C., Y.R. Chen, K.H. Yang, C.P. Yang, **K.L. Tung**, M.J. Lee, J.H. Shih and Y.C. Liu* (2018) "Effective Reduction of Water Molecules' Interaction for Efficient Water Evaporation in Desalination," *Desalination*, 436, 91-97.
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35. Chen, L.H., A. Huang, Y.R. Chen, C.H. Chen, C.C. Hsu, F.Y. Tsai and **K.L. Tung*** (2018) "Omniphobic Desalination Membranes: Effective Deposition of Zinc Oxide Nanoparticles," *Desalination*, 428, 255-263.
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41. Amala Jeya Ranchani, A., V. Parthasarathy, S.J. Mahalakshmi, **K.L. Tung*** and R. Anbarasan* (2019) "Synthesis, Characterization and Catalytic Application of Eco-friendly Ca Bridged Aminoclay" *Int. J. Chem. Kinet.* 51(12) 889-902.
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89. K. Setnickova, T.-C. Huang, C.-T. Wang, Y.-C. Lin, S. L. Lee, G.-L. Zhuang, **K.-L. Tung**, H.-H. Tseng, P. Uchytil (2021) "Realizing the impact of the intermediate layer structure on the CO₂/CH₄ separation performance of carbon molecular sieving membranes: Insights from experimental synthesis and molecular simulation," *Separation and Purification Technology*, 269, 118627.
90. S. K. Yeh, Y. B. Tsai, K. F. Gebremedhin, T. Y. Chien, R. Y. Chang, **K. L. Tung** (2021) "Preparation of polypropylene/high-melt-strength PP open-cell foam for oil absorption," *Polymer Engineering & Science*, 61, 1139-1149.
91. Wang, C.Y., K. Maeda, L.L. Chang, **K.L. Tung** and C. Hu* (2022) "Synthesis and Applications of Carbon Nitride (CN_x) Family with Different Carbon to Nitrogen Ratio," *Carbon*, 188, 482-491. DOI: 10.1016/j.carbon.2021.12.027 (SCI, 2021 IF: 11.307)
92. Yeh, Y.J., C.Y. Liu, J.P. Ju*, W.H. Chiang and **K.L. Tung** (2022) "Plasmonic Au Loaded Semiconductor-engineered Large-scale Metallic Nanotube Arrays as SERS Platform," *Surf. Coat. Technol.*, 436, 128285. DOI: 10.1016/j.surfcoat.2022.128285 (SCI, 2021 IF: 4.865).
93. Chen, S.S., Z.J. Yang, C.H. Chang, H.U. Koh, T. Ahamad, S.M. Alshehri, **K.L. Tung** and K. C.-W. Wu* (2022) "Interfacial Nanoarchitectonics for ZIF-8 Membranes with Enhanced Gas Separation," *Beilstein J. Nanotechnol.*, 13, 313-324. DOI: 10.3762/bjnano.13.26 (SCI, 2021 IF: 3.272).
94. Thamizhlarasan, A., N. Murugan, Y.C. Liu, R. Anbarasan* and **K.L. Tung*** (2022) "Effect of Amine and Acid Functionalization on Polyimide: A Structure-property Relationship Study," *React. Funct. Polym.*, 173, 105237. DOI: 10.1016/j.reactfunctpolym.2022.105237 (SCI, 2021 IF: 4.966).
95. Tsai, S.C., W.Z. Huang, G.S. Lin, Z. Wang, **K.L. Tung*** and C.J. Chuang* (2022) "Theoretical Analysis of the Specific Energy Consumption of SWRO Integrated with MD and PRO Processes," *Membranes*, 12(4), 432. DOI: 10.3390/membranes12040432 (SCI, 2021 IF: 4.562).
96. Catherine, H., W.L. Chiu, L.L. Chang, **K.L. Tung**, C. Hu* (2022) "Gel-like Ag-Dicyandiamide Metal-organic Supramolecular Networks-derived g-C₃N₄ for Photocatalytic Hydrogen Generation," *ACS Sustain. Chem. Eng.*, 10(26) 8360-8369. DOI: 10.1021/acssuschemeng.2c01138 (SCI, 2021 IF: 9.224).
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98. Huang, W.Z., F. Lin, S.L. Lee, F.T. Tao and **K.L. Tung*** (2022) "Fabrication of Microporous Polyamide Selective Layer on Macroporous Ceramic Hollow Fibers via Direct Interfacial Polymerization for Nanofiltration Applications," *J. Membrane Sci.*, 657, 120710. DOI: 10.1016/j.memsci.2022.120710 (SCI, 2021 IF: 10.530).
99. Thamizhlarasan, A., R. Vignesh, R. Anbarasan* and **K.L. Tung*** (2022) "Synthesis and Characterization of Functionalized PVDF and the High Temperature Catalytic Activity of PVDF-g-MAH/V₂O₅ Nanocomposite Towards Trans-Esterification Reaction," *Polym. Eng. Sci.*, 62(9), 3010-3025. DOI: 10.1002/pen.26081 (SCI, 2021 IF: 2.573).

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101. Yeh, Y.J., T.N. Le, W. W.-W. Hsiao, **K.L. Tung***, K. Ostrikov, W.H. Chiang* (2023) “Plasmonic Nanostructure-enhanced Raman Scattering for Detection of SARS-CoV-2 Nucleocapsid Protein and Spike Protein Variants,” *Anal. Chim. Acta.*, 1239, 340651. DOI: 10.1016/j.aca.2022.340651 (SCI, 2021 IF: 6.911).
102. Anbarasan, R.*, A. Thamizhlarasan, Y.C. Liu and **K.L. Tung*** (2023) “Synthesis, characterization, catalytic reduction and C, N cross coupling reaction of Sodiumalginate/V2O5 nanocomposite,” *J. Taiwan Inst. Chem. Eng.*, 142, 104613. DOI: 10.1016/j.jtice.2022.104613 (SCI, 2021 IF: 5.477).
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104. Yeh, Y.J., W. Lin, W.H. Chiang* and **K.L. Tung*** (2023) “Plasma-enabled Graphene Quantum Dot-based Nanofiltration Membranes for Water Purification and Dye Monitoring,” *J. Membrane Sci.*, 670, 121334. DOI: 10.1016/j.memsci.2022.121334 (SCI, 2021 IF: 10.530).
105. Lai, Y.R., S.L. Lee, Y.K. Liou, Y.F. Lin and **K.L. Tung*** (2023) “Aquaporin-Inspired Thin-Film Composite Nanofiltration Ceramic Hollow Fiber with the Modification of Arginine,” *J. Membrane Sci.*, 670, 121342. DOI: 10.1016/j.memsci.2022.121342 (SCI, 2021 IF: 10.530).
106. Hou, H.H., B.S. Lee; Y.C. Liu, Y.P. Wang, W.T. Kuo, I.H. Chen, C.H. Lai, **K.L. Tung**, Y.W. Chen* (2023) “Vapor-induced Pore-forming Atmospheric Plasma Sprayed Zinc-, Strontium-, and Magnesium-doped Hydroxyapatite Coatings on Titanium Implants Enhance New Bone Formation – An in vivo and in vitro Investigation,” *Int. J. Mol. Sci.*, 24(5), 4933. DOI: 10.3390/ijms24054933 (SCI, 2021 IF: 6.208).
107. Yeh, Y.J., J.P. Chu*, J.D. You, T.H. Chang, J.R. Liou, W.H. Chiang, P. Yiu, C.H. Hsueh, Y.L. Shen, **K.L. Tung*** (2023) “Tunable Nanostructured Stainless-steel Coating for Highselective and Highpermeable Separation Membranes for Oil/Water Emulsions,” *npj Clean Water*, 6, 17. DOI: 10.1038/s41545-023-00237-x (SCI, 2021 IF: 12.19).

Conference Papers

1. Toba, Y., S. Fukunaga, T. Horie, H. Sugiyama, A. Kanda, T.Y. Hsu, T.H. Chen, **K.L. Tung** and N. Ohmura (2017) “Effect of Disk Turbine Impeller on Lignin Decomposition in a Sonochemical Vessel Reactor,” Proc. of the 9th International Symposium on Mixing in Industrial Processes (ISMIP9), Birmingham, UK, June 25-28, 2017.
2. **Tung, K.L.** (2017) “Effect of Substrate Curvature on Gas Permeability of Alumina Hollow Fiber Supported MFI Zeolite Membranes” Proc. of the Int’l Congress on Membranes (ICOM), San Francisco, USA, July 29-August 4, 2017.

3. Ko C.C., **K.L. Tung** and E. Drioli (2018) "Preparation of hydrophobic ceramic membrane and application in vacuum membrane distillation and membrane crystallization," *2018 International Conference Focused on Membrane and Electromembrane Processes (MELPRO2018)*, Prague, Czech Republic, May. 13-16, 2018.
4. Chen, C.H., L.H. Chen, A. Huang and **K.L. Tung** (2018) "Glass fiber Membranes with Omniphobic Surface Reached by Effective Deposition of Zinc Oxide Nanoparticles: Great Potential for Membrane Contactor Applications," *2018 International Conference Focused on Membrane and Electromembrane Processes (MELPRO2018)*, Prague, Czech Republic, May 13-16, 2018.
5. Chen, L.H., A. Huang, Y.R. Chen and **K.L. Tung** (2018) "Omniphobic Desalination Membranes: Effective Deposition of Zinc Oxide Nanoparticles," *Proc. of FILTECH 2018*, Cologne, Germany, March 13-15, 2018.
6. **Tung, K.L.** (2018) "Nature-inspired Filtration Membranes Fabrication: Biomimicry vs. Geomimicry," *Proc. of the 1st Annual Meeting of Korean Filtra & Separa. Soc.*, Anshan, Korea, Feb. 27-28, 2018. (Keynote Speaker)
7. **Tung, K.L.**, C.C. Hu and Y.F. Lin (2018) "Fabrication of Photocatalytic Membranes Using Thermal Plasma Spray Coating," *Proc. of Japan-Taiwan Catalyst Symp.*, Kyoto, Japan, Jan. 28-31, 2018. (Invited Speaker)
8. **Tung, K.L.**, A. Huang, Y.R. Chen, C.H. Chen, and C.C. Kan (2019) "Omniphobic Inorganic Membranes Fabricated through Nanoarchitected Design of ZnO Depositions for Membrane Contactor Applications," *Proc. the 18th Congress of APCCHE*, Sapporo, Japan, Sep. 23-27, 2019. (Keynote Speaker).
9. Chen, Y.R., R.K. Xin, K. Zuo, **K.L. Tung**, Q.L. Li (2019) "Wetting-resistant Photothermal Integrated Nanocomposite Membrane for Direct Solar Membrane Distillation," *Proc. of the 2019 Cross-strait Membrane Conference*, Beijing, China, Aug. 16-20, 2019 (Invited Speaker).
10. Hsu, P.Y., T.Y. Hu, C.H. Chang, K. C.-W. Wu, **K.L. Tung** and S.J. Lue (2019) "Highly Zeolite-Loaded Polyvinyl Alcohol Composite Membranes for Alkaline Fuel-Cell Electrolytes," *Proc. of the 2nd Int'l Conf. Bioenergy & Clean Energy (ICBCE 2019)*, Singapore, Singapore, Aug. 14-16, 2019 (Keynote Speaker).
11. Chen, Y.R., R.K. Xin, K. Zuo, **K.L. Tung**, Q.L. Li (2019) "Omniphobic and Photothermal Integrated Nanocomposite Membrane for Direct Solar Membrane Distillation," *Proc. of the 12th Aseanian Membrane Society Conference (AMS12)*, Jeju, Korea, July 2-5, 2019 (Invited Speaker).
12. Chen, Y.R., R.K. Xin, K. Zuo, **K.L. Tung**, Q.L. Li (2019) "Omniphobic and Photothermal Integrated Direct Solar Membrane Distillation," *Proc. of the 9th IWA Conference on Membrane Tech., (IWA-MTC 9)*, Toulouse, France, June 23-26, 2019 (Keynote Speaker).

Book/Chapter (2015-2022)

1. Guo, W., H.H. Ngo, C. Chen, A. Pandey, **K.L. Tung** and D.J. Lee, (2016) "Anaerobic Membrane Bioreactors for Future Green Bioprocess," Chapter 25 in *Green Technologies for Sustainable Water Management*, edited by H.H. Ngo, W. Guo, R.Y. Surampalli, and T.C. Zhang, ASCE, USA. (ISBN: 978-0-784-41442-2) (July 2016).

2. Chen, L.H., Y.R. Chen, C.Y. Chou, C.H. Chen, C.C. Ko and **K.L. Tung** (2017) “Inorganic Membranes in Water and Wastewater Treatment,” Chapter 5 in Sustainable Membrane Technology for Water and Wastewater Treatment, edited by A. Figoli and A. Criscuoli, pp.121-154, Springer (ISBN: 978-981-10-5621-5).
3. 呂維明、**童國倫** 編著，「固液過濾技術」，第二版，台灣過濾與分離學會 出版，五南圖書總經銷，台北，ISBN: 978-957-11-9607-7 (2018)。
4. **童國倫**、張楷焄、周哲宇 著，「EndNote/RefWorks 論文與文獻寫作管理」，第五版，五南出版社，台北，ISBN: 978-957-11-9512-4 (2018)。
5. **童國倫**，編著「奈米過濾」，「薄膜科技概論：第6章」，賴君義 主編，第一版，五南圖書總經銷，台北，ISBN: 978-957-76-3344-6 (2019)
6. Wang, Z., S.L. Lee, T.C. Huang, G.S. Lin, T. Yoshioka and **K.L. Tung*** (2022) “Molecular Modelling and Simulation of Membrane Formation,” Chapter 17 in 60 Years of the Lobe-Sourirajan Membrane: Principles, New Materials, Modelling, Characterizations and Applications, edited by H.H. Tseng, W.J. Lau, M.A. Al-Ghouti and L. An, pp.463-498, Elsevier Inc. Amsterdam, Netherlands (ISBN: 978-0-323-89977-2) (Apr. 2022)
7. **童國倫**、程麗華、王朕 著，「EndNote & Word 文獻管理與論文寫作」，第三版，化學工業出版社，北京，ISBN: 978-7-122-41162-4 (2022)。

Patents

1. **Tung, K.L.**, T.C. Ling, C.C. Hsiung, and K.S. Chang, “Method for Forming Composite Membrane with Porous Coating Layer and Apparatus Thereof (具有多孔塗層之複合膜的形成方法及其裝置),” P.R.C. Patent, Patent No.: ZL200810001355.7 (May 28, 2010 issued), CYCU/MOEA/NSC (2010).
2. **Tung, K.L.**, Y.L. Li, N.J. Lin, S.J. Lai and Y.H. Huang, “Detection and Analysis Apparatus for Membrane Filtration Process,” Japan Patent, CYCU/MOEA, (Jan. 17, 2012 issued) (2012).
3. Chen, J.T, Y.J. Fu, **K.L. Tung**, S.H. Huang, W.S. Hung, S.J. Lue, C.C. Hu, K.R. Lee and J.Y. Lai “A Silica-like Membrane for Separating Gas and the Method for Forming the Same,” U.S. Patent, CYCU/MOEA/NSC, (pending; Nov. 19, 2012 filed).
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5. Chen, J.T, Y.J. Fu, **Tung, K.L.**, S.H. Huang, W.S. Hung, S.J. Lue, C.C. Hu, K.R. Lee and J.Y. Lai “A Silica-like Membrane for Separating Gas and the Method for Forming

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 7. Chang, Y, H.H. Hsu, **Tung, K.L.**, J.F. Jhong and T.C. Wei “Wound Healing Material and Method for Fabricating the Same (皮膚傷口癒合材料及其製造方法),” U.S. Patent, CYCU/MOEA/NSC, (pending; Nov. 12, 2010 filed, appl. number: 12/945,121).
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 9. Chung, T.W., **Tung, K.L.**, Y.F. Lin and K.T. Liu “A Multi-stage Membrane Separation Apparatus for Oil Production Process (油品用多段連續式薄膜分離純化設備),” R.O.C. Patent, Patent No.: M475307 (April 1, 2014 issued), 2014/4/1~2023/08/22, CYCU/NSC (2014).
 10. Lin, Y.F., C.C. Ko and **Tung, K.L.**, “A MTMS membrane Enabling Long-term CO₂ Capture and the Method for Forming the Same (可長效捕集並增加CO₂吸收量的MTMS薄膜),” R.O.C. Patent, CYCU/NSC, (pending; July. 19, 2013 filed).
 11. Chen, J.T, Y.J. Fu, **Tung, K.L.**, S.H. Huang, W.S. Hung, S.J. Lue, C.C. Hu, K.R. Lee and J.Y. Lai “A Silica-like Membrane for Separating Gas and the Method for Forming the Same,” U.S. Patent, Patent, CYCU/MOEA/NSC (pending; 2015 filed)
 12. **Tung, K.L.**, C.C. Yang, C.C. Ko, C.H. Chen and Y.F. Lin “Hydrophobic Porous Silica Aerogel Composite Membrane and Vacuum Membrane Distillation Method,” U.S. Patent, Patent No.: 9617174, (April 11, 2017 issued), 2017/4/11~2035/3/2, NTU/MOST, (2017).
 13. **Tung, K.L.**, C.C. Yang, C.C. Ko, C.H. Chen and Y.F. Lin “Hydrophobic Porous Silica Aerogel Composite Membrane and Vacuum Membrane Distillation Method (疏水性多孔二氧化矽氣凝膠複合薄膜及真空薄膜蒸餾方法),” R.O.C. Patent, Patent No.: I577565 (April 11, 2017 issued), 2017/4/11~2035/3/2, NTU/MOST (2017).
 14. Lin, Y.F., C.C. Ko, **Tung, K.L.**, C.H. Chen and K.S. Chang “Porous Silica Aerogel Composite Membrane and Method for Making the Same and Carbon Dioxide Sorption Device,” US Patent, Patent No.: 9561463, (February 7, 2017 issued), 2017/2/7~2035/2/6, CYCU/NSC (2017).
 15. Lin, Y.F., C.C. Ko, **Tung, K.L.**, C.H. Chen and K.S. Chang “多孔二氧化矽氣凝膠複合薄膜及其製造方法以及二氧化碳吸收裝置,” R.O.C. Patent, Patent No.:565681, (January 11, 2017 issued), 2017/1/11~2035/3/18, CYCU/NSC (2017).

Honors and others (2017-2022)

1. 指導 陳建樺同學· 榮獲第 64 屆台灣化學工程學會「口頭論文發表傑出獎」· (2017)
2. 獲 2017 年台北國際發明競賽 金牌獎(Gold Medal Award) (2017)
3. 獲 2017 年美國匹茲堡發明競賽金牌獎(Gold Medal Award) 2017 the Invention & New Product Exposition (INPEX), Pittsburgh, USA (2017)
4. 獲 2017 年第 14 屆國家新創獎---學研新創類傑出獎 (2017)
5. 獲選擔任「國際水協會(IWA)」薄膜技術委員會 副會長 (Vice Chair) (2017)
6. 獲國立臺灣大學「慶琅先生講座」 (2017)
7. 獲第一屆「國際奈米奧林匹亞競賽(INO)」世界冠軍 (指導老師) (2018)
8. 獲頒「國際水協會(IWA)」會士(Fellow) (2018)
9. 獲科技部「傑出研究獎」 (2019)
10. 獲科技部「未來科技突破獎」 (2019)
11. 榮獲 109 年度中工會傑出工程教授獎 2020/04/28
12. 獲邀擔任歐洲 Wiley 出版 SCI 期刊 ChemBioEng Reviews 編輯委員 (Editorial Board member) 2020/07/18
13. 獲邀擔任 Elsevier 出版 SCI 期刊 Journal of Membrane Science 編輯委員 (Editorial Board member) 2020/07/31
14. 榮獲 2020 未來科技獎 2020/09/15
15. 榮獲科技部 109 年傑出技術移轉貢獻獎 2020/09/27
16. 獲邀擔任 Elsevier 出版 SCI 期刊 Separation and Purification Technology 編輯 (Editor) 2020/12/09
17. 榮獲"侯金堆傑出榮譽獎---環境保護領域" 2020/12/30
18. 榮獲 2021 年第二十八屆『東元獎/化工材料類』 2021/09/23
19. 榮獲 110 年度科技部傑出研究獎 2022/02/26

Editorial Board of International Journals

Associate/Subject/Manuscript Editor:

1. Journal of Taiwan Institute of Chemical Engineers, Elsevier (SCI indexed) (2015/07~)
2. Journal of Chinese Institute of Engineers, Taylor & Francis (SCI indexed) (2015/01~)
3. Desalination and Water Treatment, Taylor & Francis (SCI indexed) (2013/01~)

Editorial Board Member:

1. Membranes, MDPI AG Publisher (SCI indexed) (2019/08~)
2. Membrane Water Treatment, Techno-Press (SCI indexed) (2017/01~)
3. ChemBioEng Reviews, Wiley-VCH, Weinheim, Germany (2014/01~)
4. Journal of Membrane and Sep. Technol., Lifescience Global (2012/12~)
5. Filtration journal (CA and SCOPUS indexed), The Filtration Society, UK (2006/01~)

International Organization Services

1. Vice Chair/Management Committee Member of SG on Membrane Tech., IWA (2017/10~)
2. Secretary/Management Committee Member of SG on Membrane Tech., IWA (2014/01~)
3. Advisory Board Member of European Union Centre in Taiwan (EU-TW) (2014/04~)
4. Assessor of Natural Sci. and Eng. Res. Unit, Academy of Finland, Finland (2012/09~)
5. Assessor of Qatar National Research Fund, Qatar (2012/01~)
6. Assessor of Australian Research Council, Australia (2010/06~)
7. Executive Committee Member of International Recycling Society (2010/01~)

Plenary Speaker

1. 2023 The 20th Congress of APCChE, Sept. 4-9, 2019, Manila, Philippines

Keynote Speaker:

2. 2023 The 10th IWA-Membrane Technol. Conf. (IWA-MTC 10), July 23-27, 2023, St. Louis, USA
3. 2022 The 26th Int'l Cong. of Chemical and Process Eng. (CHISA), Aug. 21-25, 2022, Prague, Czech
4. 2022 The 13th Conf. of Aseanian Membrane Society (AMS13), July 4-6, 2022, Singapore
5. 2021 The Materials Research Meeting (MRM2021), Dec. 13-16, 2021, Yokohama, Japan
6. 2020 The 30th Annual Meeting of Membrane Society of Korea, Nov. 19-20, 2020, Seoul, Korea
7. 2019 The 18th Congress of APCChE, Sept. 23-27, 2019, Sapporo, Japan

8. 2019 The 9th IWA-Membrane Technol. Conf. (IWA-MTC 9), June 23-27, 2019, Toulouse, France
9. 2019 The 3rd Japan-Taiwan International Eng. Forum, Feb. 27 March 1, 2019, Tokyo, Japan
10. 2018 The 6th IWA Regional Conference on Membrane Tech., Dec. 10-12, 2018, Vadodara, India
11. 2017 The 8th IWA Membrane Tech. Conference (IWA-MTC 8), Sept. 3-6, 2017, Singapore

Invited Speaker:

1. 2022 Int'l Dental Materials Congress 2022 (IDMC 2022), Nov. 2-3, 2022, Taipei, Taiwan
2. 2021 Italy-Taiwan Bilateral Symp. on Emergent Crystalline Materials, Dec. 9-10, 2021, Italy (On-line)
3. 2021 2021 Annual Meeting of the Waterloo Filtration Inst. (WFI), Dec. 7-8, 2021, Canada (On-line)
4. 2019 The 12th Conf. of Aseanian Membrane Society (AMS12), July 2-5, 2019, Jeju, Korea
5. 2018 The 11th Conf. of Aseanian Membrane Society (AMS11), July 4-7, 2018, Brisbane, Australia

