

宮輔辰 教授	
學歷	國立台灣科技大學高分子工程所博士
研究領域專長	碳分析應用於食品產業規劃與設計、ESG報告書、碳盤查及碳足跡潛勢分析、農漁循環經濟碳權規畫、生物技術
授課科目	永續綠生活、ESG於營養產業中的應用與實踐、健康產業創新創業實務、食品文化與永續發展
經歷	<ol style="list-style-type: none"> <li>1. 開南大學保健營養學系教授</li> <li>2. 開南大學養生與健康新行銷系副教授、系主任</li> <li>3. 開南大學通識教育中心助理教授</li> <li>4. 聖母醫護管理專科學校共同科兼任助理教授</li> <li>5. 國立台灣科技大學高分子工程所博士後研究員</li> <li>6. 日本 OSG 株式會社特聘國際顧問</li> <li>7. 同威投資有限公司顧問兼永續發展代表</li> <li>8. 寰宇國際財務顧問有限公司董事長特別顧問</li> <li>9. 好魚安股份有限公司顧問兼永續發展代表</li> <li>10. 台北士林扶輪社 17-18 年度秘書長</li> </ol>
證照	<ol style="list-style-type: none"> <li>1. ISO 14064-1主導稽核員 (TUV NORD)</li> <li>2. ISO 14067主導稽核員 (TUV NORD、Bellcert)</li> <li>3. ESG報告書(DQS、TUV NORD)</li> <li>4. ESG分析、規劃、管理師(TUV NORD)</li> <li>5. IT Planner of IFRS(IFRS資訊規劃師)</li> <li>6. 永續發展影響力規劃師</li> <li>7. 智慧製造資訊規劃師</li> <li>8. 創業經營核心能力指標國際認證</li> <li>9. 微型創業經營與管理職能認證</li> <li>10. 商用雲端APP軟體設計師</li> </ol>

著作

(A) 期刊論文:

1. Yu-Lin Kuo\*, Fu-Chen Kung, Chi-Liang Ko, Akitoshi Okino, Tai-Chin Chiang, Jhao-Yu Guo, Song-Yu Chen. Tailoring surface properties of polyethylene terephthalate by atmospheric pressure plasma jet for grafting biomaterials. *Thin Solid Films*. 2020, Volume 709, 138132. (SCI). (跨國合作)
2. Fu-Chen Kung, Yu-Lin Kuo, Oguzhan Gunduz, Chi-Chang Lin. Dual RGD-immobilized poly(L-lactic acid) by atmospheric pressure plasma jet for bone tissue engineering. *Colloids and Surfaces B: Biointerfaces*, 2019, Volume 178, 358-364. (SCI). (跨國合作)
3. Fu-Chen Kung\*, Injectable collagen/RGD systems for bone tissue engineering applications. *BIO-MEDICAL MATERIALS AND ENGINEERING*, 2018; 29(2):241-251. (SCI).
4. Wing P. Chan, Fu-Chen Kung,\* Yu-Lin Kuo, Ming-Chen Yang, and Wen-Fu Thomas Lai, Alginate/Poly( $\gamma$ -glutamic Acid) Base Biocompatible Gel for Bone Tissue Engineering,

- BioMed  
 Research International, 2015, 2015,185841. (SCI).
5. Fu-Chen Kung, Chi-Chang Lin, Wen-Fu T. Lai, Osteogenesis of human adipose-derived stem cells on hydroxyapatite-mineralized poly(lactic acid) nanofiber sheets, Materials Science and Engineering: C, 2014,45, 578 (SCI).
  6. Cheng-An J. Lin, Wen-Kai Chuang, Zih-Yun Huang, Shih-Tsung Kang, Ching-Yi Chang, Ching-Ta Chen, Jhih-Liang Li, Jimmy K. Li, Hsueh-Hsiao Wang, Fu-Chen Kung, Ji-Lin Shen, Wen-Hsiung Chan, Chih-Kuang Yeh, Hung-I Yeh, Wen-Fu T. Lai, and Walter H. Chang, Rapid Transformation of Protein-Caged Nanomaterials into Microbubbles As Bimodal Imaging Agents, ACS Nano, 2012, 6 (6), 5111. (SCI).
  7. Yu-Lin Kuo \*, Te-Li Su, Fu-Chen Kung, T.-J. Wu, A Study of Parameter Setting and Characterization of Visible-Light Driven Nitrogen-modified Degussa P25 Photocatalysts, Journal of Hazardous Materials, 2011, Vol. 190, pp. 938-944. (SCI).
  8. Te-Li Su\*, Yu-Lin Kuo, T.-J. Wu, Fu-Chen Kung, Experimental analysis and optimization of synthesis property of the nitrogen-modified TiO<sub>2</sub> visible-light photocatalysts," Journal of Chemical Technology & Biotechnology. 2011, 87(1), 160-164. (SCI).
  9. Yu-Lin Kuo, Te-Li Su, K.-J. Chuang, H.-W. Chen\*, Fu-Chen Kung, Preparation of Platinum- and Silver-Incorporated TiO<sub>2</sub> Coatings in Thin Film Photoreactor for the decomposition of o-Cresol," Environmental Technology, 2011, 33(15-16), 1799-1806. (SCI).
  10. Y.-M. Su, Fu-Chen Kung, Te-Li Su, P.-C. Tsai, C.-C. Lai, Yu-Lin Kuo\*, Materials Characteristics and Electric Performance of SiOX Addition in GDC Electrolytes, Journal of the Chinese Institute of Engineers, 2011, Vol. 34, pp. 31-38. (SCI).
  11. Te-Li Su, Fu-Chen Kung\*, Yu-Lin Kuo," Optimization of High Performance Engineering Plastics in

- Thin Wall Part Injection Molding," Advanced Materials Research, 2011, Vol. 213, pp. 58-62. (EI)
12. L-S. Chang, Te-Li Su, Ming-Chien Yang, Fu-Chen Kung\*, Effect of diallyl disulfide immobilization on the immunoreaction of polysulfone membranes. TEXT. RES. J, 2010, vol. 80 no. 11 1038-1046. (SCI).
13. Te-Li Su, Yu-Lin Kuo, H.-W. Chen, Fu-Chen Kung\*, P.-C. Tsai, Grey Relational Analysis of an Automatic Identifying System for Cloth Texture, Fibres & Textiles in Eastern Europe, 2010, Vol.18, No. 2 (79) pp. 60-64. (SCI).
14. H.-L. Huang, J.-T. Wu, Te-Li Su, Ming-Chien Yang, Yu-Lin Kuo, Fu-Chen Kung\*. Reduction of free radicals and endotoxin by conjugated linoleic acid loaded in in-situ synthesized poly(N-isopropyl acrylamide) thin layer. J Appl Polym Sci.,2009, 113, 3222-3227. (SCI).
15. Yu-Lin Kuo, Fu-Chen Kung, Te-Li Su., Superior stability of ultrathin and Nanocrystalline TiZrN Films as Diffusion Barriers for Cu Metallization, Nanoscience and Nanotechnology Letters, 2009, 1, 37-41
16. Te-Li Su, L.S. Chang, Fu-Chen Kung, Intelligent computerized fabric texture recognition system by using Grey-based neural fuzzy clustering. ICWAPR, 2009, p 185-189. (EI)
17. F.-C.Kung,\* Weng Y.-J., Optimizations of the Processing Parameters of High Performance Engineering Plastic in Injection Molding. Polym. Plast. Technol. Eng. 2008, 47, 1-8.
18. Te-Li Su, Fu-Chen Kung\*, Yu-Lin Kuo, Application of back-propagation neural network fuzzy clustering in textile texture automatic recognition system, ICWAPR, 1, 46-49,2008 (EI)
19. Fu-Chen Kung, J.-J. Chang, Ming-Chien Yang, The reduction of oxidative stress, anticoagulation of platelet, and inhibition of lipopolysaccharide by conjugated linoleic acid bonded on polysulfone membrane, Polym. Adv. Tech. 2007, 18, 286–291, (SCI)
20. Fu-Chen Kung, Ming-Chien Yang\* , Effect of conjugated linoleic acid immobilization on the hemocompatibility of cellulose acetate membrane, Colloid Surface B, 2006 47, 36-42,

(SCI)

21. Fu-Chen Kung, Ming-Chien Yang\*, Effect of conjugated linoleic acid grafting on the hemocompatibility of polyacrylonitrile membranes, Polym. Adv. Tech., 2006, 17, 419-425, (SCI)
22. Fu-Chen Kung, Ming-Chien Yang\*, The effect of covalently bonded conjugated linoleic acid on the reduction of oxidative stress and blood coagulation for polysulfone hemodialyzer membrane, Int. J. Biol. Macromol. 2006., 38, 157-164, (SCI)
23. Fu-Chen Kung, W.-L. Chou, Ming-Chien Yang\*, In vitro evaluation of cellulose acetate hemodialyzer immobilized with heparin, Polym. Adv. Tech., 2006, 17, 453-462, (SCI)

(B) 研討會論文：

1. Chi-Chang Lin, Yu-Lin Kuo, Te-Li Su, WenFu Lai and Fu-Chen Kung\* , Preparation of Ultra-thin plate composing structure for Tissue Repairing and Tissue regeneration, 11th International Conference on Materials Chemistry –MC 11, 2013/07/8-11
2. Chi-Chang Lin\*, Fu-Chen Kung and WenFu Lai, Preparation of hydroxyapatite deposited electrospun PLA sheets for bone cell adhesion, 11th International Conference on Materials Chemistry –MC 11, 2013/07/8-11.
3. L. H. Chiu, Fu-Chen Kung, Ming-Chien Yang, Y. H. Tsai, W. H. Chang, W. F T Lai. A novel near infra-red fluorescent probes to repair metal artifact after implantation. 2013 NSTI Nanotechnology Conference and Expo, NSTI-Nanotech 2013. 2013/05/12-16.
4. Yu-Lin Kuo\*,Fu-Chen Kung, Ju-Yen Chen, Kuang-Hui Chang, Surface Modification on PET Using Low-Temperature Atmospheric Pressure Plasma Jet for Grafting Thermosensitive F127 Polymer, 11th Asia-Pacific Conference on Plasma Science and Technology (APCPST 2012), 2012/10/2-5
5. Yu-Cheng Lin, Jung-Jhih Chang,Yen-Hsien Lee, Ming-Chien Yang,\* Fu-Chen Kung , Electrospun scaffolds made of alginate, chitosan, collagen and hydroxyapatite for bone tissue engineering , 3th

- International NanoMedicine Conference, 2012/07/2-4
6. Te-Li Su, Ming-Chien Yang, W.-F. Lai, Fu-Chen Kung\*, (2012) Using alginate hydrogel with delayed gelation as scaffold of MG63 cells for bone defects. 2012 International Conference on Condensed Matter and Materials Physics.
7. Te-Li Su, Ming-Chien Yang, W.-F. Lai, Fu-Chen Kung\*, (2011) Preparation and properties of antioxidant sol with alginate/F127/poly( $\gamma$ -glutamic acid), 10th International Conference on Materials Chemistry, 2011/07
8. Te-Li Su, Fu-Chen Kung\*, and Yu-Lin Kuo, Optimization of High Performance Engineering Plastics in Thin Wall Part Injection Molding, International Conference on Advanced Material Research 2010.
9. Te-Li Su, L.S. Chang, Fu-Chen Kung\*, (2009) Intelligent computerized fabric texture recognition system by using Grey-based neural fuzzy clustering, International Conference on Wavelet Analysis and Pattern Recognition 2009.
10. Te-Li Su, Fu-Chen Kung\*, Yu-Lin Kuo, (2008) Application of back-propagation neural network fuzzy clustering in textile texture automatic recognition system, International Conference on Wavelet Analysis and Pattern Recognition 2008.
11. Yu-Lin Kuo, Fu-Chen Kung, M.-T. Hung, Y.-H. Lo, C. Lee, (2008) Superior stability of ultrathin and nanocrystalline TiZrN films as diffusion barriers for Cu metallization. The 4th International Conference on Technological Advances of Thin Films & Surface Coatings.
- (C) 專書及專書論文:
- 1、 Fu-Chen Kung\*, L.S. Chang, Ming-Chien Yang , Effect of antioxidants grafting on the hemocompatibility of HD. VDM Verlag, ISBN 978-3-639-15904-2
- 五、 專利或技術報告
- 發明專利
- 1). 可塑性材料及其製造方法,專利證號:I483988,2015/05/11
- 2). 修復耳膜之醫藥組成物及其用途,專利證號:I448296,2014/08/11

- 3). 注射式之骨修復複合材料,專利證號:I435728,2014/05/01  
 中華民國新型專利
- 4). 高含氧免動力型水產類受精卵自動翻轉裝置 (審核中)
- 5). 量產型活體餌料生物收集裝置 (審核中)
- 6). BLOOD DIALYSIS TUBE, BLOOD DIALYSIS UNIT AND BLOOD DIALYZER  
 血液透析纖維  
 管、血液透析單元以及血液透析器, M360046
- 7). 試管結構, M366992
- 8). 提升食味的米糠微粒, M377063
- 9). 可調式淨水裝置, M333231
- 10). 可攜式馬桶, M377181
- 11). 具除臭功能之可攜式馬桶, M377182
- 12). 養殖結構, M350984
- 13). CHOPSTICK HAVING SPOON FUNCTIONALITY 具有湯匙功能之筷子,  
 M349726
- 14). COVER HAVING STRAW, AND CONTAINING DEVICE UTILIZING THE  
 SAME 具有吸管之  
 蓋子及使用此蓋子之容納裝置, M349729
- 15). PAINTING TOOL AND PAINTING TOOL COMBINATION STRUCTURE 塗刷  
 工具及塗刷工具  
 組合結構, M349753
- 16). 椅體支撐結構, M349232
- 17). 生態養殖裝置, M333060
- 18). 瓦斯安全點火裝置, M333519
- 19). 安撫奶嘴, M328283
- 20). 水陸兩棲式高密度立體養殖塔裝置, M3263
- 21). 具提示結構之感測裝置, M341457
- 22). 模組化養殖盒,專利證號:M509528,2015/10/01
- 23). 健康園藝手套,專利證號:M477789,2014/05/11
- 24). 光觸媒包埋結構,專利證號:M459022,2013/08/11
- 25). 汽車警示裝置,專利證號:M437796,2012/09/21
- 26). 多功能美容髮夾,專利證號:M431620,2012/06/21
- 27). 收納式輔助輪椅裝置,專利證號: M431696, 2012/06/21
- 28). 輔助下床之床具,專利證號: M425660, 2012/04/01
- 29). 具減重控制功能之餐具,專利證號:M424875, 2012/03/21
- 30). 具有療癒及養護功能之吹風機頭罩,專利證號: M424053, 2012/03/11
- 31). 移動式輔助扶手裝置,專利證號: M423720, 2012/03/01

新式樣專利

32).THUMTACK 圖釘， D129472

六、得獎紀錄

1、 2018 年美國 RESI (The Redefining Early Stage Investments) 創新挑戰賽  
(Innovation Challenge)

第三名