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B.S. in Agricultural Chemistry
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Research and Professional Interests
Nanoporous materials (metal-organic frameworks (MOFs), mesoporous materials)
Biomedical applications (drug delivery system, 3D culture of stem cells)
Energy applications (biofuels from cellulose and microalgae)
Photo-electronic applications (dye-sensitized solar cells and super-capacitors)

Journal Papers

1. Madhan Vinu, Duraisamy Senthil Raja, Yue-Chun Jiang, Ting-Yu Liu, Ya-Yun Xie, Yi-Feng Lin,* Chun-Chuen Yang, Chia-Her Lin,* Saad M. Alshehri, Tansir Ahamad, Rahul R. Salunkhe, Yusuke Yamauchi, Yu-Heng Deng, and **Kevin C.-W. Wu***. Effects of Structural Crystallinity and Defects in Microporous Al-MOF Filled Chitosan Mixed Matrix Membranes for Pervaporation of Water/Ethanol Mixtures. ***Journal of the Taiwan Institute of Chemical Engineers***. 2017, accepted.

2. Babasaheb M. Matsagar, Md. Shahriar A. Hossain, Md. Tofazzal Islam, Hatem R. Alamri, Zeid A. Alothman, Yusuke Yamauchi, Paresh L. Dhepe,* and **Kevin C.-W. Wu***. Direct Production of Furfural in One-pot Fashion from Raw Biomass Using Brønsted Acidic Ionic Liquids. ***Scientific Reports.*** 2017, 7, 13508.

3. Ching-Tien Chen, Chi Van Nguyen, Zheng-Yen Wang, Yoshio Bando, Yusuke Yamauchi, Amanullah Fatehmulla, Aslam Farooq, Takuya Yoshikawa, Takao Masuda, and **Kevin C.-W. Wu***. Selective Transfer Oxidation of 5-Hydroxymethylfurfural (HMF) in Water under Mild Conditions. ***ChemCatChem.*** 2017, accepted.

4. Yu-Pu Wang, Yu-Te Liao, Chia-Hung Liu, Jiashing Yu, Hatem R. Alamri, Zeid A. Alothman, Md. Shahriar A. Hossain, Yusuke Yamauchi, and **Kevin C.-W. Wu***. Tri-functional Fe_3O_4/CaP/Alginate Core-Shell-Corona Nanoparticles for Magnetically Guided, pH-Responsive, and Chemically Targeted Chemotherapy. ***ACS Biomaterials Science & Engineering***. 2017, 3(10), 2366-2374.

5. Tzu-Yen Huang, Chung-Wei Kung, Yu-Te Liao, Sheng-Yuan Kao, Mingshan Cheng, Ting-Hsiang Chang, Joel Henzie, Hatem R. Alamri, Zeid A. Alothman, Yusuke Yamauchi,* Kuo-Chuan Ho* and **Kevin C.-W. Wu***. Enhanced Charge Collection in MOF-525-PEDOT Nanotube Composite Enable Highly Sensitive Biosensing. ***Advanced Science.*** 2017, 4, 1700261. (IF: 9.034)

6. Vediyappan Veeramani, Mani Sivakumar, Shen-Ming Chen,* Rajesh Madhu, Hatem R. Alamri, Zeid A. Alothman, Md. Shahriar A. Hossain, Ching-Kuo Chen, Yusuke Yamauchi, Nobuyoshi Miyamoto and **Kevin C.-W. Wu***. Lignocellulosic Biomass-Derived, Graphene Sheet-like Porous Activated Carbon for Electrochemical Supercapacitor and Catechin Sensing. ***RSC Advances***. 2017, 7, 45668-45675. (IF: 3.108)

7. Yu-Te Liao, Chih-Hung Lee, Si-Tan Chen, Jui-Yang Lai,* and **Kevin C.-W. Wu***. Gelatin-Functionalized Mesoporous Silica Nanoparticles with Sustained Release

Properties for Intracameral Pharmacotherapy of Glaucoma. ***Journal of Materials Chemistry B***. 2017, 5, 7008-7013. (IF: 4.543)

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Conference Papers

1. **(Invited talk) Kevin Chia-Wen Wu**, "Multi-Functionalized Mesoporous Nanocatalysts for Cellulosic Biomass Conversion", Japan-Taiwan Joint Workshop on Nanospace Materials, Fukuoka, Japan, Mar. 10-13, 2014.

2. **(Keynote talk) Kevin Chia-Wen Wu**, "Multi-Functionalized Mesoporous Silica Nanocatalysts for Biofuel Applications", Asian International Symposium, Nagoya, Japan, Mar. 29, 2014.

3. **(Invited talk) Kevin Chia-Wen Wu**, "Functionalized Mesoporous Silica-based Nanocatalysts for Production of Biofuels from Cellulosic Biomass", pre-symposium of Seventh Tokyo Conference on Advanced Catalytic Science and Technology (TOCAT7), Hokkaido, Japan, May. 28 – Jun. 1, 2014.

4. **(Invited talk) Kevin Chia-Wen Wu**, "Functionalized Mesoporous Materials for Supercapacitors, Flexible Dye-Sensitized Solar Cells (DSSCs), and Cellulosic Biomass Conversion", The International Conference on Nanocatalysts for Green Technologies, Taipei, Taiwan, Nov. 1, 2014.

5. **(Invited talk) Kevin Chia-Wen Wu**, "Functionalized Mesoporous Materials for Supercapacitors, Flexible Dye-Sensitized Solar Cells (DSSCs), and Cellulosic Biomass Conversion", The International Conference on Nanocatalysts for Green Technologies, Taipei, Taiwan, Nov. 24-25, 2014.

6. **(General Co-chaired)** 2015 International Conference on Nanospace Materials, Taipei, Taiwan. June 23-25, 2015.

7. **(Invited talk) Kevin Chia-Wen Wu**, "Multi-Functionalized Nanoporous Heterogeneous Catalysts for Biofuel Production from Cellulose", 8th International Conference on Materials for Advanced Technologies (ICMAT 2015), Singapore, Jun. 28, 2015.

8. **(Keynote talk) Kevin Chia-Wen Wu**, "Advanced Alginate Applications (AAA): Synthesis of Alginate-based Nanoparticles and Microparticles for Biomedical Applications", The 5th Asian Biomaterials Congress, Taipei, Taiwan, May 6-9, 2015.

9. **(Invited talk) Kevin Chia-Wen Wu**, "Multi-Functionalized Nanoporous Heterogeneous Catalysts for Biofuel Production from Cellulose", Southeast Asia Catalysis Conference (SACC) 2015, Singapore, May 14-15, 2015.

10. **(Invited talk) Kevin Chia-Wen Wu**, "Functionalized Mesoporous Materials for Supercapacitors, Flexible Dye-Sensitized Solar Cells (DSSCs), and Cellulosic Biomass Conversion", The International Conference on Nanocatalysts for Green Technologies, Singapore, Jun. 28-Jul. 1, 2015.

11. **(Invited talk) Kevin Chia-Wen Wu**, "Synthesis of Functional Nanoporous Materials for Energy Applications", ACTESEA-2016, NCKU, Nov. 8-11, 2015.

12. **(Invited talk) Kevin Chia-Wen Wu**, "Synthesis of Inorganic Nanoporous Materials for Energy Storage, Energy Saving, and Bio-renewable Energy", WINTech-2016, Kobe, Japan, Mar. 6, 2016.

13. **(Keynote talk) Kevin Chia-Wen Wu**, "Reduced Graphene Oxide Nanosheet Decorated with Au-Pd Bimetallic Alloy Nanoparticles Towards Efficient Photocatalytic Degradation of Phenolic Compounds", International Symposium on Nanostructured Photocatalysts and Catalysts (NPC2016), Osaka, Japan, April 8-10, 2016.

14. **(Invited talk) Kevin Chia-Wen Wu**, "Synthesis of Functional Nanoporous Materials for Environmental Applications", The 13th Conference on Environmental Protection and Nanotechnology, Taipei, Taiwan, May 27, 2016.

15. **(Invited talk) Kevin Chia-Wen Wu**, "Synthesis of Functional Nanoporous Materials for Energy Applications", Japan-Taiwan Joint Seminar on Energy and Environment for Young Chemists (JP-TW EEYC), Kaoshung, Taiwan, Jun. 23-25, 2016.

16. **(Invited talk) Kevin Chia-Wen Wu**, "Multi-functionalized Nanoporous Silica Heterogeneous Catalysts for Biofuel Production from Lignocellulosic Biomass", International Symposium on Catalytic Conversion of Biomass, Taipei, Taiwan, Jun. 27-30, 2016.

17. **(Poster)** Kuok, W.-K.; Chen, S.-Y.; **Wu, K. C.-W.**, Synthesis of alginate-cysteine modified gold nanorods for photothermal therapy of oral cancer. The 6th International Conference on Bio-based Polymers (ICBP2017), Yuan Ze University, Taiwan, May 14-17, 2017.

18. **(Poster)** Yeh, J.-Y.; Wu, **K. C.-W.**, Metal-Organic Frameworks (MOFs)-Derived Catalysts for an Effective HMF-to-FDCA Conversions. 25th European Biomass Conference, Stockholm, Sweden, June 12-15, 2017.

19. **(Invited talk) Kevin Chia-Wen Wu**, "Functional Nanoporous Materials:Green Synthesis and Energy Applications", Annual Meeting of the Society of Chemical Engineering of Japan, Tokyo, Japan, Mar. 5-8, 2017.

20. **(Invited talk) Kevin Chia-Wen W**u, "Advanced Alginate Applications (AAA): Synthesis of Alginate-based Nanoparticles and Microparticles for Biomedical Applications", 2017 Russian-Taiwanese Symposium on Nanobiology and Nanomedicine, Chungli, Taiwan. Aug. 23-26, 2017.

21. **(Keynote talk) Kevin Chia-Wen Wu**, "Functional Nanoporous Materials: Green Synthesis and Energy Applications", 2017 International Conference on Nanospace Materials, Shanghai, China, Mar. 5-8, 2017.

22. **(Plenary talk) Kevin Chia-Wen Wu**, "De Novo Synthesis of Functional Metal-Organic Frameworks(MOFs) for Catalysis Applications", OKCAT2017 (Osaka-Kansai International Symposium on Catalysis), Osaka, Japan, Oct. 29-30, 2017.

Books/Chapters

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Patents

1. "含有藥物及藥物載體之複合物"中華民國、發明專利、發明人:**吳嘉文**,洪辰諭(台灣專利號碼: I421100; 公開號:201236700) 201401~203103

2. "製作中孔性過渡金屬氧化物粒子的方法"中華民國、發明專利、發明人:**吳嘉文**,郭義榮 (台灣專利號碼: I462775公開號: 201302302) 201412~203107

3. "用於固定纖維素水解酵素之載體複合物"中華民國、發明專利、發明人:**吳嘉文**, 張漢儀 ,張鎮(公開號: 201219567) 2010/11~2032/05

4. "複合材料"中華民國、發明專利、發明人:**吳嘉文**, 廖祐德,游佳欣(公開號: 201322997) 2011/12~2033/06

5. "奈米顆粒材料及其應用"中華民國、發明專利、發明人:**吳嘉文**, 黃厚升 (公開號: 201344726) 2012/04~2033/11

6. "牙齒漂白催化劑及其應用"中華民國、發明專利、發明人:**吳嘉文**, 李伯訓,黃麗君, 林俊彬(台灣專利號碼:I461216公開號: 201223553) 201411~203012

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Honors and others

1. 榮獲 2014 日本化學學會 The Distinguished Lecture Award (最佳演說獎) for Inorganic Porous Materials

2. 發表在期刊"Science and Technology of Advanced Materials (STAM)"上的文章獲選為 Best Paper Award 2014

3. SCI 國際期刊 Scientific Reports (Nature Publishing Group) (IF: 5.578) Editorial Board Member.

4. SCI 國際期刊 Advanced Powder Technology (IF: 1.612) Editorial Board Member.

5. 榮獲 104 度吳大猷先生紀念獎(2015/10/08)

6. 榮獲科技部「吳大猷先生紀念獎」，2016

7. 2016 Green Tech 東元科技創意競賽亞軍，2016

8. The Outstanding Asian Researcher and Engineer Award in 2016.

9. SCI 國際期刊 Journal of the Taiwan Institute of Chemical Engineers (IF: 4.217) Editorial Board Member, 2017.

10. SCI 國際期刊 ACS Sustainable Chemistry & Engineering (IF: 5.951) Editorial Board Member, 2018.

11. 2017 年化工學會賴再得獎

12. 2017 年傑出青年化學家獎

期刊封面與封底