Curriculum Vitae

Ting-Yu Liu (劉定宇)

Distinguish Professor (2022.08~present)
Department of Materials Engineering,
Ming Chi University of Technology, Taiwan
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Education

1. **Visiting Scholar** (2007.04-2008.04): Dept. Materials Science and Engineering, University of Pennsylvania, USA
2. **Ph.D.** (2003-2008): Dept. Materials Science and Engineering National Chiao Tung University, Taiwan
3. **M.S.** (2001-2003): Dept. Polymer Engineering, National Taiwan University of Science and Technology, Taiwan
4. **B.S.** (1997-2001): Dept. Chemical Engineering, Yuan Ze University, Taiwan
5. **Teacher Education Program for Secondary High Schools** (2001-2003): National Taiwan University of Science and Technology, Taiwan

Experience

1. **Honorary professor** (2022.08~present): institute of Egineering, Yuan Ze University, Taiwan
2. **Professor** (2019.08~2022.07): Dept. Materials Engineering, Ming Chi University of Technology
3. **Associate Professor** (2016.08~2019.07): Dept. Materials Engineering, Ming Chi University of Technology
4. **Assistant Professor** (2013.08~2016.07): Dept. Materials Engineering, Ming Chi University of Technology
5. **Project Assistant Professor** (2011.02-2013.07): Institute of Polymer Science and Engineering, National
6. **Postdoctoral Fellow** (2009.08-2011.01): Institute of Atomic and Molecular Sciences, Academia Sinica,
7. **Executive Director** (2017.12~present): Carbon Society of Taiwan
8. **Distinguished Researcher** (2012-2013): Industrial Technology Research Institute (ITRI), Taiwan
9. **Visiting Scholar** (2011-2017): Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan
10. **Director of Practical Elite Program** (2018.08~2021.02): College of Enviroment and Resources, Ming Chi University of Technology
11. **Fellow of International Association of Advanced Materials** (2022.10~present)
12. **Guest Editor** (2019.10~present): Polymers (MDPI, Q1) (Special Issue of Advanced Polymer Nanocomposites I-III)
    (I) https://www.mdpi.com/journal/polymers/special_issues/Advanced_Polymer_Nanocomposites
    (II) https://www.mdpi.com/journal/polymers/special_issues/Advanced_Polymer_NanocompositesII
    (III) https://www.mdpi.com/journal/polymers/special_issues/V1U9Z8LS40

Current Research Interests

1. Two Dimension (2D) Materials and Graphene-based Nanohybrids
2. Surface Enhanced Raman Scattering (SERS) Detection for Biomolecules and Environmental Pollutants
3. Electrochemical Sensors for Bio-Detection
4. Electrochemical Polymerization of Conductive Polymer (PEDOT) Composites
5. Magnetic (Iron Oxide) Drug Carriers for Intelligent Drug Controlled Release in Cancer Therapy
6. Atmospheric plasma-Induced Polymerization and Bio-interface Modifications
7. Biocompatible and Ceramic Addition Resin for Stereolithography (SLA) 3D Printer
8. Dendritic Polymers Induced Self-assembly Nanoparticles

Selected SCI Publications (10/100)

1. Umamaheswari Rajaji, Mani Govindasamy, Rinky Sha, Razan A. Alshgari, Ruey-Shin Juang*, **Ting-Yu Liu***, 2022. Surface engineering of 3D spinel $Zn_3V_2O_8$ wrapped on sulfur doped graphitic nitride composites Investigation on the dual role of electrocatalyst for simultaneous detection of antibiotic drugs in biological fluids, *Composites Part B*, 242, 110017 (SCI)
2. Ruey-Shin Juang, Yu-Wei Cheng*, Wan-Tzu Chen, Kuan-Syun Wang, Chun-Chieh Fu, Shou-Hsuan Liu, Ru-Jong Jeng, Cheng-Cheung Chen, Ming-Chien Yang*, **Ting-Yu Liu***, 2020. Silver nanoparticles embedded on mesoporous-silica modified reduced graphene-oxide nanosheets for SERS detection of uremic toxins and parathyroid hormone, *Appl. Surf. Sci*., 521, 146372 (SCI)
3. Yu-Wei Cheng, Chien-Hsin Wu, Wan-Tzu Chen, **Ting-Yu Liu***, Ru-Jong Jeng*, 2019. Manipulated interparticle gaps of silver nanoparticles by dendron-exfoliated reduced graphene oxide nanohybrids for SERS detection, *Appl. Surf. Sci.* 469, 887–895 (SCI)
4. Hsing-Ying Tung, Zhen-Yu Guan, **Ting-Yu Liu**, Hsien-Yeh Chen, 2018. Vapor Sublimation and Deposition to Build Porous Particles and Composites, *Nature Communications*, 9, 2564
5. **Ting-Yu Liu***, Chieh-Ling Chen, Yi-Chen Lee, Tzu-Yi Chan, Yuh-Lin Wang, Jiang-Jen Lin*, 2016. First Observation of Physically Capturing and Maneuvering Bacteria using Magnetic Clays, *ACS Appl. Mater. Interfaces*, 8, 411
6. Jun-Ying Ho, **Ting-Yu Liu***, Jiun-Chiou Wei, Juen-Kai Wang, Yuh-Lin Wang, Jiang-Jen Lin*, 2014. Selective SERS Detecting for Hydrophobic Microorganisms by Tricomponent Nanohybrids of Silver-Silicate Platelet-Surfactant, *ACS Appl. Mater. Interfaces*, 6, 1541-1549
7. **Ting-Yu Liu**, Kun-Tong Tsai, Huai-Hsien Wang, Yu Chen, Yu-Hsuan Chen, Yuan-Chun Chao, Hsuan-Hao Chang, Chi-Hung Lin, Juen-Kai Wang, and Yuh-Lin Wang*, 2011. Functionalized Arrays of Raman-Enhancing Nanoparticles for Capture and Culture-Free Analysis of Bacteria in Human Blood, *Nature Communications*, 2, 538
8. **Ting-Yu Liu,** Kun-Ho Liu, Dean-Mo Liu, San-Yuan Chen and I-Wei Chen*, 2009. Temperature-sensitive Nanocapsules for Controlled Drug Release Caused by Magnetically Triggered Structural Disruption, *Adv. Funct. Mater.*, 19, 616-623
9. **Ting-Yu Liu**, Shang-Hsiu Hu, Dean-Mo Liu, San-Yuan Chen and I-Wei Chen*, 2009. Biomedical Nanoparticle Carriers with Combined Thermal and Magnetic Responses, *Nano Today*, 4, 52-65
10. **Ting-Yu Liu**, Wen-Ching Lin, Li-Ying Huang, San-Yuan Chen and Ming-Chien Yang*, 2005. Hemocompatibility and Anaphylatoxin Formation of Protein-Immobilizing Polyacrylonitrile Hemodialysis Membrane, *Biomaterials*, 26, 1437-1444. (SCI)

Selected Awards (7/73)

1. Outstanding Paper Award at Taiwan Association for Coating and Thin Film Technology (TACT) (2022)
2. Outstanding Young Researcher Award at Carbon Society of Taiwan (2022)
3. 18th National Innovation Award (2021)
4. 2021 FutureTech Award Finalists (2021)
5. 2021 Taiwan Innotech Expo (TIE), Gold metal award (2021)
6. 2020 Taiwan Innotech Expo (TIE), Silver metal award (2020)
7. 2019 Taiwan Innotech Expo (TIE), Gold metal award (2019)

Patents

1. Invention Patent of Republic of China, TW I776149 (2022)
2. Invention Patent of Republic of China, TWI631336 (2018)
3. Invention Patent of Republic of China, TW I591685 (2017)
4. Invention Patent of United States, US 9329176 B2 (2016)
5. Invention Patent of Republic of China, TW I496194 (2015)
6. Invention Patent of Republic of China, TW I481868 (2015)
7. Invention Patent of Republic of China, TW I335216 (2008)

SCI Journal Publications

1. **Ting-Yu Liu**, Kun-Tong Tsai, Huai-Hsien Wang, Yu Chen, Yu-Hsuan Chen, Yuan-Chun Chao, Hsuan-Hao Chang, Chi-Hung Lin, Juen-Kai Wang, and Yuh-Lin Wang*, 2011. Functionalized Arrays of Raman-Enhancing Nanoparticles for Capture and Culture-Free Analysis of Bacteria in Human Blood, *Nature Communications*, 2, 538 (SCI) News: A fast nanotechnology platform to detect/capture bacteria in clinical samples, Nanowerk Spotlight News, November 29th, 2011 (http://www.nanowerk.com/spotlight/spotid=23548.php) (**IF: 14.919, Ranking: 4/72 (6%)**, Multidisciplinary Science) **(Representative work-1)**

2. **Ting-Yu Liu,** Kun-Ho Liu, Dean-Mo Liu, San-Yuan Chen and I-Wei Chen*, 2009. Temperature-sensitive Nanocapsules for Controlled Drug Release Caused by Magnetically Triggered Structural Disruption, *Adv. Funct. Mater.*, 19, 616-623 (SCI) (**IF: 18.808, Ranking: 8/160 (5%)**, Physics, Applied) **(Representative work-2)**

3. **Ting-Yu Liu**, Shang-Hsiu Hu, Dean-Mo Liu, San-Yuan Chen and I-Wei Chen*, 2009. Biomedical Nanoparticle Carriers with Combined Thermal and Magnetic Responses, *Nano Today*, 4, 52-65 (SCI) (**IF: 20.722, Ranking: 13/334 (4%)**, Materials Science, Multidisciplinary) (SCI) **(Representative work-3)**

4. Umamaheswari Rajaji, Mani Govindasamy, Rinky Sha, Razan A. Alshgari, Ruey-Shin Juang*, **Ting-Yu Liu***, 2022. Surface engineering of 3D spinel $Zn_3V_2O_8$ wrapped on sulfur doped graphitic nitride composites Investigation on the dual role of electrocatalyst for simultaneous detection of antibiotic drugs in biological fluids, *Composites Part B*, 242, 110017 (SCI) **(IF: 11.322, Ranking: 2/92 (2%)**, Engineering, Multidisciplinary) **(Representative work-4)**

5. Umamaheswari Rajaji, Raghu M.S., Yogesh Kumar K., Abdullah A. Al-Kahtani, Chih-Ping Chen*, Ruey-Shin Juang*, **Ting-Yu Liu***, 2022. Electrocatalytic Oxidation and Amperometric Analysis of Sulfasalazine using Bimetal Oxide Nanoparticle-decorated Graphene Oxide on Modified Glassy Carbon Electrode at Neutral pH, *Microchimica Acta*, *189, 409* (SCI) (**IF: 6.408, Ranking: 13/87 (15%)**, Chemistry, Analytical)

6. Hsing-Yu Wu, Hung-Chun Lin, Guan-Yi Hung, Chi-Shun Tu, Ting-Yu Liu, Chung-Hung Hong, Guoyu Yu, Jin-Cherng Hsu*, 2022. High Sensitivity SERS Substrate of a Few Nanometers Single-Layer Silver Thickness Fabricated by DC Magnetron Sputtering Technology, *Nanomaterials*, 12, 2742 (SCI) (**IF: 5.076, Ranking: 35/160 (22%)**, Physics, Applied)

7. Andri Hardiansyah *, Ahmad Randy, Rizna Triana Dewi, Marissa Angelina, Nurfina Yudasari, Sri Rahayu, Ika Maria Ulfah, Faiza Maryani, Yu-Wei Cheng, **Ting-Yu Liu***, 2022. Magnetic Graphene-Based Nanosheets with Pluronic F127-Chitosan Biopolymers Encapsulated α-Mangosteen Drugs for Breast Cancer Cells Therapy, *Polymers*, 14, 3163 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

8. Shih-Chieh Hsu, Cai-Wan Chang-Jian, Tzu-yen Huang, Chih-Wei Hu, Lo-Yueh Chang, Han-Hsin Chiang, Nian-Jheng Wu, Shih-An Liu, Jen-Hsien Huang, Jia-Lin Kang*, Huei Chu Weng*, **Ting-Yu Liu***, 2022. Synergistic effect of doping and surface engineering on $LiNi_{0.5}Mn_{1.5}O_4$ and its application as a high-performance cathode material for Li-ion batteries, *Ceramics International*, 48, 27859 (SCI) (**IF: 4.527, Ranking: 3/29 (10%)**, Polymer Science)

9. Abhyuday Paliwal, Lorenzo Mardegan, Cristina Roldan-Carmona, Francisco Palazon, **Ting-Yu Liu**, Henk J. Bolink, Efficient Semitransparent Perovskite Solar Cells Based on Thin Compact Vacuum Deposited $CH_3NH_3PbI_3$ films, *Advanced Materials Interfaces*, 2201222 (SCI) (**IF: 6.389, Ranking: 48/179 (27%)**, Chemistry, Multidisciplinary)

10. Ming-ChienYang, Andri Hardiansyah, Yu-Wei Cheng*, Hung-Liang Liao, Kuan-Syun Wang, Ahmad Randy, Christian Harito, Jeng-Shiung Chen, Ru-Jong Jeng*, **Ting-Yu Liu***, 2022. Reduced Graphene Oxide Nanosheets Decorated with Core-Shell of Fe_3O_4-Au Nanoparticles for Rapid SERS Detection and Hyperthermia Treatment of Bacteria, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 281, 121578 (SCI) **(IF: 4.098, Ranking: 5/43 (12%)**, Spectroscopy)

11. Yen-Ting Lin, Chun-Hao Wu, Wei-Lin Syu, Po-Cheng Ho, Zi-Ling Tseng, Ming-Chien Yang, Chin-Ching Lin, Cheng-Chen Chen* , Cheng-Cheung Chen*, **Ting-Yu Liu***, 2022. Replica of Bionic Nepenthes

Peristome-like and Anti-Fouling Structures for Self-Driving Water and Raman-Enhancing Detection, *Polymers*, 14, 2465 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

12. Ruey-Shin Juang, Kuan-Syun Wang, Yu-Wei Cheng, Wei-En Wu, Yu-Hsuan Lin, Ru-Jong Jeng, Li-Ying Huang, Ming-Chien Yang*, Shou-Hsuan Liu*, **Ting-Yu Liu***, 2022. Intelligent and thermo-responsive Au-pluronic® F127 nanocapsules for Raman-enhancing detection of biomolecules, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 279, 121475 (SCI) **(IF: 4.098, Ranking: 5/43 (12%)**, Spectroscopy)

13. Glemarie C. Hermosa, Chien-Shiun Liao, Ho-Shing Wu, Sea-Fue Wang, **Ting-Yu Liu**, Kuo-Shyang Jeng, Shu-Sheng Lin, Chiung-Fang Chang, An-Cheng Aidan Sun, Green Synthesis of Magnetic Ferrites (Fe_3O_4, $CoFe_2O_4$, and $NiFe_2O_4$) Stabilized by Aloe Vera Extract for Cancer Hyperthermia Activities, IEEE Transactions on Magnetics, 58, 5400307 (SCI) **(IF: 1.848, Ranking: 193/276 (70%)**, Engineering, Electrical & Electronic)

14. Ruey-Shin Juang, Wei-Ting Chen, Yu-Wei Cheng*, Zi-Ling Zeng, Chi-Ming Liu, Shou-Hsuan Liu, **Ting-Yu Liu***, 2022. Fabrication of *in situ* magnetic capturing and Raman enhancing nanoplatelets for detection of bacteria and biomolecules, *Colloid. Surfaces A*, 648, 129189 (SCI) **(IF: 4.539, Ranking: 64/162 (40%)**, Chemistry, Physical)

15. Avik Sett, Tanisha Rana, Umamaheswari Rajaji, Rinky Sha*, **Ting-Yu Liu***, Tarun Kanti Bhattacharyya*, 2022. Emergence of Two-Dimensional Nanomaterials-Based Breath Sensors for Non-Invasive Detection of Diseases, *Sensors & Actuators: A. Physical*, 338, 113507 (SCI) **(IF: 3.407, Ranking: 17/64 (27%)**, Instruments & Instrumentation)

16. Yu-Wei Cheng *, Yen-Ting Lin, Kun-Ho Liu, Jung-San Chen, Shih-Hsuan Wang, **Ting-Yu Liu***, 2022. In situ and Initiator-Free Atmospheric Plasma-Induced Functionalization of Poly(Ethylene Glycol) Methacrylate on Nonwoven Cosmetic Masks for the Evaluation of the Bacteria Inhibitory Effect, *Colloid. Surfaces A*, 642, 128719 (SCI) 576, 36 (SCI) **(IF: 4.539, Ranking: 64/162 (40%)**, Chemistry, Physical)

17. Yu-Wei Cheng, Chia-Wei Hsiao, Chia-Hsien Lin, Li-Ying Huang, Jeng-Shiung Chen, Ming-Chien Yang*, Ting-Yu Liu *, 2022. Bionic 3D Periodic Nanostructures by Ag Nano-Islands Deposited on Cicada Wings for Rapid SERS Detection, *Surface & Coatings Technology*, 436, 128323 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

18. Kuan-Syun Wang, Zi-Ling Tseng , Chih-Yi Liu, Tsai-Yu Kuan, Ru-Jong Jeng, Ming-Chien Yang *, Yuh-Lin Wang*, **Ting-Yu Liu***, 2022. Novel Strategy for Flexible and Super-Hydrophobic SERS Substrate Fabricated by Deposited Gold Nanoislands on Organic Semiconductor Nanostructures for Bio-Detection, *Surface & Coatings Technology*, 435, 128251 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

19. Guang-Zhi Peng, Andri Hardiansyah, Hsuan-Ting Lin, Ruo-Yu Lee, Chih-Yu Kuo*, Ying-Chih Pu*, **Ting-Yu Liu***, 2022. Photocatalytic Degradation and Reusable SERS Detection by Ag Nanoparticles Immobilized on G-C_3N_4/Graphene Oxide Nanosheets, *Surface & Coatings Technology*, 435, 128212 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

20. Yan-Feng Chen, Chih-Hao Wang, Wen-Ru Chang, Jia-Wun Li, Mao-Feng Hsu, Ya-Sen Sun*, **Ting-Yu Liu***, Chih-Wei Chiu*, 2022. Hydrophilic–Hydrophobic Nanohybrids of AuNP-Immobilized Two-Dimensional Nanomica Platelets as Flexible Substrates for High-Efficiency and High-Selectivity Surface-Enhanced Raman Scattering Microbe Detection, *ACS Appl. Bio Mater*., 5, 1073 (SCI) **[Cover Image]**

21. Umamaheswari Rajaji, Pattan-Siddappa Ganesh, Sang-Youn Kim*, Mani Govindasamy, Razan Abdullah Alshgari, **Ting-Yu Liu***, 2022. MoS_2 Sphere/2D S‐Ti_3C_2 MXene Nanocatalysts on Laser-Induced Graphene Electrodes for Hazardous Aristolochic Acid and Roxarsone Electrochemical Detection, *ACS Appl. Nano Mater*., 5, 3252 (SCI) (**IF: 5.097, Ranking: 101/334 (30%)**, Materials Science, Multidisciplinary)

22. Rinky Sha*, Palash Chandra Maity, Umamaheswari Rajaji, **Ting-Yu Liu***, Tarun Kanti Bhattacharyya, 2022. Review-$MoSe_2$ Nanostructures and Related Electrodes for Advanced Supercapacitor

Developments, *Journal of The Electrochemical Society*, 169, 013503 (SCI) (**IF:4.316, Ranking: 5/21 (24%)**, Materials Science, Coatings & Films)

23. Yu-Wei Cheng, Wen-Hao Chuang, Kuan-Syun Wang, Wen-Chi Tseng, Wen-Yen Chiu, ChienHsin Wu*, **Ting-Yu Liu***, Ru-Jong Jeng*, 2022. Thermoresponsive SERS Nanocapsules Constructed by Linear-Dendritic Poly(Urea/Malonamide) for Tunable Biomolecule Detection, *ACS Applied Polymer Materials* 4*,* 240 (SCI) (**IF:4.089, Ranking: 22/90 (24%)**, Polymer Science) **[Cover Image]**

24. Sathishkumar Chinnapaiyan, Umamaheswari Rajaji, Shen-Ming Chen*, **Ting-Yu Liu***, José Ilton de Oliveira Filho, Yo-Shiuan Chang, 2022. Fabrication of Thulium Metal–Organic Frameworks Based Smartphone Sensor Towards Arsenical Feed Additive Drug Detection Applicable in Food Safety Analysis, *Electrochimica Acta*, 401, 139487 (SCI) (**IF: 6.901, Ranking: 8/29 (28%)**, Electrochemistry)

25. Shih-Chieh Hsu, Tzu-Ten Huang, Yen-JuWu, Cheng-Zhang Lu, Huei Chu Weng*, Jen-Hsien Huang, Cai-Wan Chang-Jian*, **Ting-Yu Liu***, 2021. Polyimide-Derived Carbon-Coated $Li_4Ti_5O_{12}$ as High-Rate Anode Materials for Lithium Ion Batteries, *Polymers*, 12, 1467 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

26. Tung-Yuan Yung, Yu-Chun Lu, Jeng-Shiung Chen, Yu-Wei Cheng, **Ting-Yu Liu***, Po-Tuan Chen*, 2021. Reinforcement of Epoxy Resin by Additives of Amine-Functionalized Graphene Nanosheets, *Coatings,* 11, 35 (SCI) **(IF: 2.881, Ranking: 70/160 (44%)**, Physics, Applied)

27. Chien-Hong Lin*, Yu-De Zhuang, Ding-Guey Tsai, Hwa-Jou Wei, **Ting-Yu Liu***, 2020. Performance enhancement of vanadium redox flow battery by treated carbon felt electrodes of polyacrylonitrile using atmospheric pressure plasma, *Polymers*, 12, 1372 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

28. Chuan-Chih Hsu, Yu-Wei Cheng *, Che-Chun Liu, Xin-Yao Peng, Ming-Chi Yung, **Ting-Yu Liu***, 2020. Anti-Bacterial and anti-Fouling capabilities of poly(3,4-Ethylenedioxythiophene) derivative nanohybrid coatings on SUS316L stainless steel by electrochemical polymerization, *Polymers*, 12, 1467 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

29. Chuan-Chih Hsu, **Ting-Yu Liu**, Xin-Yao Peng, Yu-Wei Cheng, Yan-Ru Lin, Ming-Chien Yang, Li-Ying Huang, Kun-Ho Liu, Ming-Chi Yung*, 2020. Anti-fouling and anti-coagulation capabilities of PEDOT-biopolymer coating by in-situ electrochemical copolymerization, *Surf. Coat. Technol.*, 391, 125963 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

30. Ruey-Shin Juang, Yu-Wei Cheng*, Wan-Tzu Chen, Kuan-Syun Wang, Chun-Chieh Fu, Shou-Hsuan Liu, Ru-Jong Jeng, Cheng-Cheung Chen, Ming-Chien Yang*, **Ting-Yu Liu***, 2020. Silver nanoparticles embedded on mesoporous-silica modified reduced graphene-oxide nanosheets for SERS detection of uremic toxins and parathyroid hormone, *Appl. Surf. Sci*., 521, 146372 (SCI) **(IF: 6.707, Ranking: 1/21 (5%)**, Materials Science, Coatings & Films)

31. Chun-Chieh Fu, Yu-Sheng Hsiao, Jia-Wen Ke, We-Lin Syu, **Ting-Yu Liu**, Shou-Hsuan Liu, Ruey-Shin Juang*, 2020. Adsorptive removal of p-cresol and creatinine from simulated serum using porous polyethersulfone mixed-matrix membranes, *Sep. Purif. Technol.*, 245, 116884 (SCI) **(IF: 7.312, Ranking: 16/143 (11%)**, Engineering, Chemical)

32. Andri Hardiansyah, Ming-Chien Yang, Hung-Liang Liao, Yu-Wei Cheng, Fredina Destyorini, Yuyun Irmawati, Chi-Ming Liu, Ming-Chi Yung, Chuan-Chih Hsu*, **Ting-Yu Liu***, 2020. Magnetic Graphene-Based Sheets for Bacteria Capture and Destruction Using a High-Frequency Magnetic Field, Nanomaterials, 10, 674 (SCI) (**IF: 5.076, Ranking: 35/160 (22%)**, Physics, Applied)

33. Kai-Ting Hou, **Ting-Yu Liu**, Min-Yu Chiang, Chun-Yu Chen, Shwu-Jen Chang*, San-Yuan Chen*, 2020. Cartilage tissue-mimetic pellets with multifunctional magnetic hyaluronic acid-graft-amphiphilic gelatin microcapsules for chondrogenic stimulation, *Polymers*, 12, 785 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

34. Yen-Ting Lin, Yi-Shao Ting, Bo-Yu Chen, Yu-Wei Cheng*, **Ting-Yu Liu***, 2020. Bionic shark skin replica and zwitterionic polymer brushes functionalized PDMS membrane for anti-fouling and wound

dressing applications, *Surf. Coat. Technol.*, 391, 125663 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

35. Yu-Wei Cheng, Chia-Wei Hsiao, Zi-Ling Zeng, Wei-Lin Syu, **Ting-Yu Liu***, 2020. The interparticle gap manipulation of Au-Ag nanoparticle arrays deposited on flexible and atmospheric plasma-treated PDMS substrate for SERS detection, *Surf. Coat. Technol.*, 389, 125653 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

36. Yu-Wei Cheng, Shih-Hsuan Wang, Chi-Ming Liu, Ming-Yen Chien, Chuan-Chih Hsu*, **Ting-Yu Liu***, 2020. Amino-modified graphene oxide nanoplatelets for photo-thermal and antibacterial capability, *Surf. Coat. Technol.*, 385, 125441 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

37. Ming-Chien Yang, Hui-Ming Tsou, Yu-Sheng Hsiao, Yu-Wei Cheng, Che-Chun Liu, Li-Ying Huang, Xin-Yao Peng, **Ting-Yu Liu***, Ming-Chi Yung, Chuan-Chih Hsu*, 2019. Electrochemical Polymerization of PEDOT–Graphene Oxide–Heparin Composite Coating for Anti-Fouling and Anti-Clotting of Cardiovascular Stents, Polymers, 11, 1520 (SCI) (**IF: 4.329, Ranking: 18/90 (20%)**, Polymer Science)

38. Andri Hardiansyah, Fredina Destyorini, Yuyun Irmawati, Ming-Chien Yang, Chi-Ming Liu, Elsy Rahimi Chaldun, Ming-Chi Yung, **Ting Yu Liu***, 2019. Characterizations of doxorubicin-loaded PEGylated magnetic liposomes for cancer cells therapy, *J. Polym. Res.*, 26, 282 (SCI) (**IF: 3.097, Ranking: 36/90 (40%)**, Polymer Science)

39. Wan-Tzu Chen, Yu-Wei Cheng, Ming-Chien Yang*, Ru-Jong Jeng, **Ting-Yu Liu***, Juen-Kai Wang*, Yuh-Lin Wang*, 2019. Mesoporous Silica Nanospheres Decorated by Ag−Nanoparticle Arrays with 5 nm Interparticle Gap Exhibit Insignificant Hot-Spot Raman Enhancing Effect, *J. Phys. Chem. C*, 123, 18528−18535 (SCI) **(IF: 4.126, Ranking: 124/334 (37%)**, Materials Science, Multidisciplinary)

40. Ming-Chien Yang, Yi-Qun Tseng, Kun-Ho Liu, Yu-Wei Cheng, Wan-Tzu Chen, Wei-Ting Chen, Chia-Wei Hsiao, Ming-Chi Yung*, Chuan-Chih Hsu*, **Ting Yu Liu***, 2019. Preparation of Amphiphilic Chitosan–Graphene Oxide–Cellulose Nanocrystalline Composite Hydrogels and Their Biocompatibility and Antibacterial Properties, *Appl. Sci.*, 9, 3051 (SCI) **(IF: 2.679, Ranking: 38/90 (42%)**, Engineering, Multidisciplinary)

41. Ruey-Shin Juang, Kuan-Syun Wang, Yu-Wei Cheng, Chun-Chieh Fu, Wan-Tzu Chen, Chi-Ming Liu, Chu-Chun Chien, Ru-Jong Jeng, Cheng-Cheung Chen, **Ting-Yu Liu***, 2019. Floating SERS substrates of silver nanoparticles-graphene based nanosheets for rapid detection of biomolecules and clinical uremic toxins, *Colloid. Surfaces A*, 576, 36 (SCI) **(IF: 4.539, Ranking: 64/162 (40%)**, Chemistry, Physical) **(Cover Image)**

42. Yu-Wei Cheng, Chien-Hsin Wu, Wan-Tzu Chen, **Ting-Yu Liu***, Ru-Jong Jeng*, 2019. Manipulated interparticle gaps of silver nanoparticles by dendron-exfoliated reduced graphene oxide nanohybrids for SERS detection, *Appl. Surf. Sci*., 469, 887–895 (SCI) **(IF: 6.707, Ranking: 1/21 (5%)**, Materials Science, Coatings & Films)

43. Tung-Yuan Yung*, Tai-Cheng Chen, Kun-Cao Tsai, Wen-Feng Lu, Jiunn-Yuan Huang, **Ting-Yu Liu***, 2019. Thermal Spray Coatings of Al, ZnAl and Inconel 625 Alloys on SS304L for Anti-Saline Corrosion, *Coatings,* 9, 32 (SCI) **(IF: 2.881, Ranking: 70/160 (44%)**, Physics, Applied)

44. Li-Ying Huang, Ming-Chien Yang*, Hui-Ming Tsou, **Ting-Yu Liu***, 2019. Hemocompatibility and anti-fouling behavior of multilayer biopolymers immobilized on gold-thiolized drug-eluting cardiovascular stents, *Colloid. Surface B*, 173, 470 (SCI) **(IF: 5.268, Ranking: 11/71 (15%)**, Biophysics)

45. Hsing-Ying Tung, Zhen-Yu Guan, **Ting-Yu Liu**, Hsien-Yeh Chen*, 2018. Vapor Sublimation and Deposition to Build Porous Particles and Composites, *Nature Communications*, 9, 2564 (SCI) (**IF: 14.919, Ranking: 4/72 (6%)**, Multidisciplinary Science)

46. Wei-Lin Syu, Yu-Hsuan Lin, Abhyuday Paliwal, Kuan-Syun Wang, **Ting-Yu Liu***, 2018. Highly sensitive and reproducible SERS substrates of bilayer Au and Ag nano-island arrays by thermal evaporation deposition, *Surf. Coat. Technol.*, 350, 823–830 (SCI) **(IF: 4.158, Ranking: 40/160 (25%)**, Physics, Applied)

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