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High-power pulse magnetron sputtering technology, Metal oxide nanomaterial synthesis, micro drill and tool coating, material and mechanical property analysis

業界年資： 聯華電子、明志科大電漿與薄膜科技中心研究員、雲科大精密儀器中心

分機：

參考資料目錄:

- A. 曾任校委員
 - B. Referred International Journal Papers (國際期刊)
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A. 曾任校委員

B. Referred International Journal Papers (國際期刊)

- B1. Chi-Lung Chang, Chun-Cheng Lin, Po-Yuan Huang, **Jian-Fu Tang*** (2024, June). Cu-based nano-multilayer film produced by HiPIMS for antimicrobial properties and its application in photodetector. Journal of Alloys and Compounds, vol. 1001, p175157. (IF=5.8) (METALLURGY & METALLURGICAL ENGINEERING; 8/90=8.9%, Q1)
- B2. Chia-Jung Chou, Ayano Abe, **Jian-Fu Tang**, Tzu-Chau Lin, Chi-Ching Kuo, Ja-Hon Lin and Chihaya Adachi (2024, Apr). Realizing a flexible and wavelengthtunable random laser inspired by cicada wings. Journal of Materials Chemistry C, vol. 12, p5701-5707. (IF=6.4) (PHYSICS, APPLIED; 32/160=20.0%, Q1)
- B3. **Jian-Fu Tang**, Jung-En Tsao, Bo-Ruei Lu, Chi-Lung Chang (2024, Mar.) Microstructure and antibacterial properties of AlCrTiZrWN high-entropy alloy nitride synthesized using HiPIMS under various N₂/Ar flow ratios. Surface and Coatings Technology, vol. 481, p130693. (IF=5.4) (MATERIALS SCIENCE, COATINGS & FILMS; 4/21=19.0%, Q1)
- B4. **Jian-Fu Tang**, Yong-Lang Yang, Lung-Chien Chen, Chen-Fang Kang, Cheng-Liang Hsu (2024, Mar.) Gas-sensing Properties of P-Type of Nitrogen-Doped ZnO Nanorods Prepared by Deep Cryogenic Treatment. Applied Surface Science, vol. 658, p159871. (IF=6.7) (MATERIALS SCIENCE, COATINGS & FILMS; 1/21=4.8%, Q1)
- B5. **Jian-Fu Tang**, I-Hong Chen, Bo-Ruei Lu, Chi-Lung Chang (2024, Mar.) Effect of bias voltages and interlayer design on microstructure, mechanical properties, and adhesion performance of AlCrSiN coatings deposited using HiPIMS. Surface and Coatings Technology, vol. 434, p128201. (IF=5.4) (MATERIALS SCIENCE, COATINGS & FILMS; 4/21=19.0%, Q1)
- B6. **Jian-Fu Tang**, Shi-Yu Huang, I-Hong Chen, Guan-Lun Shen and Chi-Lung Chang (2023, Aug.) Effects of Synchronous Bias Mode and Duty Cycle on Microstructure and Mechanical Properties of AlTiN Coatings Deposited via HiPIMS. Coatings, vol. 13, 1512. (IF=3.4) (PHYSICS, APPLIED; 57/160=35.6%, Q2)
- B7. Chi-Lung Chang, Kuo-Chun Lo, Fu-Chi Yang, Guan-Lun Shen and **Jian-Fu Tang*** (2023, Aug.) HiPIMS co-sputtering for the increase of the mechanical properties of arc deposited TiN coatings. Journal of Materials Research and Technology (JMR&T), vol. 26, 2050-2059. (IF=6.4) (METALLURGY & METALLURGICAL ENGINEERING; 6/79=7.6%, Q1)
- B8. Hugo Huang, Li-Wen Wang, **Jian-Fu Tang**, Tai-Yu Wu, Yi-Hong Liu and Sheng-Yuan Chu (2023, May) Properties of Electro-Deposited CuSCN Thin Films with Different Electrodeposition Charge Density. ECS Journal of Solid State Science and Technology, vol. 12, 055010 (IF=2.2) (PHYSICS, APPLIED; 97/160=60.6%, Q3)
- B9. **Jian-Fu Tang**, Chung-Cheng Fang; Cheng-Liang Hsu (2023, Mar) Enhanced Organic Gas Sensor Based on Cerium- and Au-Doped ZnO Nanowires via Low Temperature One-Pot Synthesis. Applied Surface Science, vol. 613, 156094. (IF=6.7) (MATERIALS SCIENCE, COATINGS & FILMS; 1/21=4.8%, Q1)
- B10. **Jian-Fu Tang**, Shang-Hao Wang, Fu-Chi Yang, Chi-Lung Chang (2022, Aug) Effects of Carbon Doping and DC Bias Voltage on Microstructure and Mechanical Properties of AlCrCN Films Synthesized via HiPIMS. materials, vol. 15, p5729. (IF=3.4) (METALLURGY & METALLURGICAL ENGINEERING; 20/79=25.3%, Q2)

- B11. Chi-Lung Chang, Chun-Hong Huang, Ching-Yen Lin, Fu-Chi Yang, **Jian-Fu Tang*** (2022, May) Mechanical properties of amorphous and crystalline CrN/CrAlSiN multilayer coating fabricated using HPPMS. *Surfaces and Interfaces*, vol. 31, p102064. (IF=6.2) (MATERIALS SCIENCE, COATINGS & FILMS; 3/21=14.3%, Q1)
- B12. **Jian-Fu Tang**, Yi-Da Sie, Zong-Liang Tseng, Ja-Hon Lin, Lung-Chien Chen, Cheng-Liang Hsu (2022, May) Perovskite Quantum Dot-ZnO Nanowire Composites for Ultraviolet-Visible Photodetectors. *ACS APPLIED NANO MATERIALS*, vol. 5, p7237 – 7245. (IF=5.9) (MATERIALS SCIENCE, MULTIDISCIPLINARY; 98/344=28.5%, Q2)
- B13. **Jian-Fu Tang**, Po-Yuan Huang, Ja-Hon Lin, Ting-Wei Liu, Fu-Chi Yang, Chi-Lung Chang (2022, Mar.) Microstructure and Antimicrobial Properties of Zr-Cu-Ti Thin-Film Metallic Glass Deposited Using High-Power Impulse Magnetron Sputtering. *Materials*, vol. 15, p2461. (IF=3.4) (METALLURGY & METALLURGICAL ENGINEERING; 20/79=25.3%, Q2)
- B14. **Jian-Fu Tang**, Shi-Yu Huang, Ja-Hon Lin, Fu-Chi Yang, Chi-Lung Chang (2022, Feb.) Mechanical properties of TiN deposited in synchronous bias mode through high-power impulse magnetron sputtering. *Surface and Coatings Technology*, vol. 434, p128201. (IF=5.4) (MATERIALS SCIENCE, COATINGS & FILMS; 4/21=19.0%, Q1)
- B15. Wei-Lung Mao, Yu-Ying Chiu, Bing-Hong Lin, Wei-Cheng Sun and **Jian-Fu Tang***, (2021, Nov.) Direct Fuzzy CMAC Sliding Mode Trajectory Tracking for Biaxial Position System. *Energies*, vol.14, 7802. (IF=3.2) (ENERGY & FUELS;80/119=67.2%, Q3)
- B16. Li-Wei Chao, **Jian-Fu Tang**, Shih-Hung Lin, Yi-Ting Lee, Yi-Lun Chen, Cheng-Ho Hsieh, Lung-Chien Chen and Zong-Liang Tseng (2021, Sep.) Facile room-temperature synthesis of highly air-stable and moisture-resistant CsPbX₃/SiO₂ nanocomposites for tunable white light-emitting diodes. *Materials Science in Semiconductor Processing*, vol.136, 106158. (IF=4.1) (PHYSICS, APPLIED; 45/160=28.1%, Q2)
- B17. Chi-Lung Chang, Guo-Jun Luo, Fu-Chi Yang and **Jian-Fu Tang*** (2021, July) Effects of duty cycle on microstructure of TiN coatings prepared using CAE/HiPIMS. *VACUUM*, vol. 192, 110449. (IF=4.0) (PHYSICS, APPLIED;48/160=30.0%, Q2)
- B18. **Jian-Fu Tang**, Ching-Yen Lin, Fu-Chi Yang and Chi-Lung Chang (2021, July) Effects of Input Power Ratio of AlCr/Ti Target on the Microstructural and Mechanical Properties of AlTiCrN Coatings Synthesized by a High-Power Impulse Magnetron Sputtering Process. *Coatings*, vol. 11, 826. (IF=3.4) (PHYSICS, APPLIED;57/160=35.6%. Q2)
- B19. Chi-Lung Chang, Ching-Yen Lin, Fu-Chi Yang and **Jian-Fu Tang*** (2021, July) The Effect of Match between High Power Impulse and Bias Voltage: TiN Coating Deposited by High Power Impulse Magnetron Sputtering. *Coatings*, vol. 11, 822. (IF=3.4) (PHYSICS, APPLIED;57/160=35.6%. Q2)
- B20. Zong-Liang Tseng, Shih-Hung Lin, **Jian-Fu Tang**, Yu-Ching Huang, Hsiang-Chih Cheng, Wei-Lun Huang, Yi-Ting Lee and Lung-Chien Chen (2021, Mar.) Polymeric Hole Transport Materials for Red CsPbI₃ Perovskite Quantum-Dot Light-Emitting Diodes. *Polymers*, vol. 13, 896. (IF=5.0) (POLYMER SCIENCE; 16/86=18.6%, Q1)
- B21. **Jian-Fu Tang**, Chun-Hong Huang, Ching-Yen Lin, Fu-Chi Yang, Chi-Lung Chang (2020, July.) Effects of Substrate Rotation Speed on Structure and Adhesion Properties of CrN/CrAlSiN Multilayer Coatings Prepared Using High-Power Impulse Magnetron Sputtering. *Coatings*, vol. 10, 742. (IF=3.4) (PHYSICS, APPLIED;57/160=35.6%. Q2)
- B22. **Jian-Fu Tang**, Ching-Yen Lin, Fu-Chi Yang, Chi-Lung Chang (2020, Jun.) Influence of Nitrogen Content and Bias Voltage on Residual Stress and the Tribological and Mechanical Properties of CrAlN Films. *Coatings*, vol. 10, 546. (IF=3.4) (PHYSICS, APPLIED;57/160=35.6%. Q2)

- B23. Fu-Chi Yang , Ching-Yen Lin, **Jian-Fu Tang**, Chi-Lung Chang (2020, Mar.) Effect of inserting mid-frequency pulses on the microstructural and mechanical properties of AlTiN coatings prepared by superimposed HiPIMS process. *Surface and Coatings Technology*, vol. 388, p125597. (IF=5.4) (MATERIALS SCIENCE, COATINGS & FILMS; 4/21=19.0%, Q1)
- B24. **Jian-Fu Tang**, Ching-Yen Lin, Fu-Chi Yang, Yi-Jing Tsai, Chi-Lung Chang (2020, Feb.) Effects of nitrogen-argon flow ratio on the microstructural and mechanical properties of AlCrN coatings prepared using high power impulse magnetron sputtering. *Surface and Coatings Technology*, vol. 386, p125484. (IF=5.4) (MATERIALS SCIENCE, COATINGS & FILMS; 4/21=19.0%, Q1)
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- B26. **Jian-Fu Tang**, Hui Liu, Yi-Jing Tsai, Chun-Hong Huang, Ching-Yen Lin, Jenn-Jiang Hwang, Xiaojian Wang, Wei Li, Chi-Lung Chang. (2019, Nov.) Effect of process parameters on optical characteristics of diamond-like carbon thin films deposited by HiPIMS technology. *Thin solid films*, vol. 690, 137562. (IF=2.1) (PHYSICS, CONDENSED MATTER;41/67=61.2%, Q3)
- B27. Hui Liu, **Jian-Fu Tang**, Xiaojian Wang, Wei Li, and Chi-Lung Chang (2019, Sep.). Effects of nitrogen-argon flow ratio on the microstructural and mechanical properties of TiAlSiN/CrN multilayer coatings prepared using high power impulse magnetron sputtering. *J. Vac. Sci. Technol. A* 37(5) (IF=2.9) (PHYSICS, APPLIED; 72/160=45.0%, Q2)
- B28. Chi-Ting Tsai, Ya-Han Liu, **Jian-Fu Tang**, Po-Chung Kao, Chung-Had Chiang, Sheng-Yuan Chu (2018, Jun). Effects of novel transition metal oxide doped bilayer structure on hole injection and transport characteristics for organic light-emitting diodes. *Synthetic Metals*, 243, 121-126. (IF=4.4) (POLYMER SCIENCE;23/86=26.7%, Q2)
- B29. Chung-Ming Weng, Cheng-Che Tsai, Cheng-Shong Hong, Jyh Sheen, Sheng-Yuan Chu, **Jian-Fu Tang**, Yi-Hong Zou (2017, Oct). Effects of LiNbO₃-doping on properties of (Na_{0.535}K_{0.48})NbO₃ piezoelectric ceramics with high electromechanical coupling coefficient for application in surface acoustic wave devices. *Ceramics International*, vol. 43, p11324-11330. (IF=5.2) (MATERIALS SCIENCE, CERAMICS; 3/29=10.3%, Q1)
- B30. **Jian-Fu Tang**, Lung-Chien Chen, Zong-Liang Tseng, Sheng-yuan Chu (2017, Aug). Indium Doped ZnO Thin Films Prepared by Sol-Gel Technique for Efficient Inverted Type of polymer Solar Cells. *Journal of Nanoelectronics and Optoelectronics*, vol. 12, pp849-852. (IF=0.6) (ENGINEERING, ELECTRICAL & ELECTRONIC;264/275=96.0%, Q4)
- B31. **Jian-Fu Tang**, Yang-Ming Lu, Zong-Liang Tseng, Sheng-yuan Chu (2017, Mar). Growth of Dual-Layer Nanorods and Nanowalls Using Al Reaction Layer for Cholesterol Biosensor. *IEEE Sensors Journal*, vol. 17, 1584-1589. (IF=4.3) (INSTRUMENTS & INSTRUMENTATION;15/63=23.8%, Q1)
- B32. Zong-Liang Tseng, Lung-Chien Chen, **Jian-Fu Tang**, Meng-Fu Shih, and Sheng-Yuan Chu (2017, Mar). Thickness Effect of Nb-Doped TiO₂ Transparent Conductive Oxide Grown on Glass Substrates Fabricated by RF Sputtering. *Journal of Electronic Materials*, Vol. 46, pp 1476-1480. (IF=2.1) (PHYSICS, APPLIED; 99/160=61.9%,Q3)
- B33. **Jian-Fu Tang**, Yang-Ming Lu, Zong-Liang Tseng, Sheng-yuan Chu (2016, Oct). Effects of multilayer buffer on structural properties of ZnO nanostructures grown using a solvothermal method. *CRYSTENGCOMM*, 18, 9357-9362. (IF=3.1) (CRYSTALLOGRAPHY;6/26=23%, Q1)
- B34. Y. M. Lu, P. G. Jhuang, **J. F. Tang**, S. Y. Chu , and C. W. Hsu (2016, Oct). Synthesis High Sensitivity ZnO Cholesterol Biosensor with One Dimensional Nanostructures. *Advanced Science, Engineering and Medicine*, Vol. 8, 1-4.

- B35. Chun-Cheng Lin, **Jian-Fu Tang**, Hsiu-Hsien Su, Cheng-Shong Hong, Chih-Yu Huang and Sheng-Yuan Chu (2016, Jun). Multi-step resistive switching behavior of Li-doped ZnO resistance random access memory device controlled by compliance current. JOURNAL OF APPLIED PHYSICS, 119,244506. (IF=3.2) (PHYSICS, APPLIED;62/160=38.8%, Q2)
- B36. **Jian-Fu Tang**, Zong-Liang Tseng, Lung-Chien Chen and Sheng-Yuan Chu (2016, Apr). ZnO nanowalls grown at low-temperature for electron collection in high-efficiency perovskite solar cells. Solar Energy Materials & Solar Cells, 154, pp18–22. (IF=6.9) (PHYSICS, APPLIED;26/160=16.3%, Q1)
- B37. **Jian-Fu Tang**, Sheng-yuan Chu, Yang-Ming Lu, Zong-Liang Tseng (2016, Feb). Using an Al reaction layer to control the morphology and optical properties of ZnO nanorods and nanowalls. Materials Letters, 171, 195-199. (IF=3.0) (PHYSICS, APPLIED;69/160=43.1%, Q2)
- B38. **Jian-Fu Tang**, Yang-Ming Lu, Sheng-Yuan Chu (2016, Mar.). The growth of AZO nanostructures with high doping concentration using vertical reaction layer synthesizing method and their applications. Sensors and Actuators B: Chemical, 225, 327-333. (IF=8.4) (INSTRUMENTS & INSTRUMENTATION; 1/63=1.6%, Q1)
- B39. **Jian-Fu Tang**, Zong-Liang Tseng, Chieh-Ying Chen, Yang-Ming Lu, Sheng-Yuan Chu (2015, Mar). Effects of various hybrid nanostructures on antireflective performance of poly-Si solar cells. RSC Advances, 5, 28870. (IF=3.9) (CHEMISTRY, MULTIDISCIPLINARY;74/178=41.6%, Q2)
- B40. Bo-Yuan Su, An-Hsiu Cheng, Jia-Ling Wu, Chun-Cheng Lin, **Jian-Fu Tang**, Sheng-Yuan Chu, Yung-Der Juang (2015, Jan). UV-Ozone Process for Film Densification of Solution-Processed InGaZnO Thin-Film Transistors. JOURNAL OF DISPLAY TECHNOLOGY, 11, 1, 6-12. (IF=1.53) (ENGINEERING, ELECTRICAL & ELECTRONIC;148/262=56.5%, Q3)
- B41. **Jian-Fu Tang**, Hsiu-Hsien Su, Yang-Ming Lu, Sheng-Yuan Chu (2015). Controlled growth of ZnO nanoflowers on nanowall and nanorod networks via a hydrothermal method. CRYSTENGCOMM, 17, 592-597. (IF=3.1) (CRYSTALLOGRAPHY;6/26=23%, Q1)
- B42. Chun-Cheng Lin, **Jian-Fu Tang**, Sheng-Yuan Chu (2013, Oct). High performance bulk acoustic resonator based on ZnO:Li piezofilms with high crystallinity and uniformity. Nanotechnology Materials and Devices Conference (NMDC), 2013 IEEE 8th, 67 - 69. (EI).
- B43. Yang-Ming Lu, **Jian-Fu Tang** (2013, May). Electro-optical and structural properties of Al-doped ZnO nanorod arrays prepared by hydrothermal process. International Journal of Science and Engineering , Vol.3, No.2 (2013): 11-15. (理工研究學報).
- B44. Chun-Cheng Lin, Chia-Chiang Chang, Chin-Jyi Wu, Zong-Liang Tseng, **Jian-Fu Tang**, Sheng-Yuan Chu, Yi-Chun Chen, Xiaoding Qi (2013, Mar). In-situ post-annealing technique for improving piezoelectricity and ferroelectricity of Li-doped ZnO thin films prepared by radio frequency magnetron sputtering system. APPLIED PHYSICS LETTERS, 102, 102107. (IF=4.0) (PHYSICS, APPLIED;48/160=30%, Q2)

C. Book Chapter (國際專書章節論文)

D. International Conference Papers (國際研討會期刊)

D1. Cheng-Ho Hsieh, Yu-Xuan Lin, Guan-Rong Chen, **Jian-Fu Tang***, Metal Oxide nanostructure as a sensitive layer for surface

- acoustic wave hydrogen gas sensor. (IEEE IWEM 2024) (桃園) 220129.
- D2. Chi-Lung Chang, Guan-Lun Shen, Fu-Chi Yang **Jian-Fu Tang***, Influence of peak power density and bias voltage on the structure and mechanical properties of AlCrN and AlCrTiN coatings deposited by HiPIMS. (ICASS 2024) (大陸浙江) P064.
- D3. **Jian-Fu Tang**, Bo-Ruei Lu, Jung-En Tsao, Fu-Sen Yang, Chi-Lung Chung, Development of Antibacterial Application Coating by High-Power Impulse Magnetron Sputtering of AlCrTiZrW High-Entropy Alloy. (PTSDG 2024) (新北市)
- D4. **Jian-Fu Tang***, Cheng-Ho Hsieh, Yu-Xuan Lin, and Guan-Rong Chen, P-Type of Nitrogen-Doped ZnO Nanowires Prepared by Extremely Low-Temperature Treatment for VOC Gas Sensor. (IEEE ICASI 2024) (日本京都), J240312.
- D5. Bo-Ruei Lu, I-Hong Chen, Jung-En Tsao, **Jian-Fu Tang**, Chi-Lung Chang*, Study on the characterizations of AlCrSiN coatings deposited by high power impulse magnetron sputtering at different bias voltages. (TACT2023) (臺北), D-P-51.
- D6. Jung-En Tsao, Bo-Ruei Lu, **Jian-Fu Tang**, Chi-Lung Chang*, Study on microstructure and properties of AlCrTiZrWN multi principal element Alloy Nitride Coating. (TACT2023) (臺北), F-P-50.
- D7. Cheng-Ho Hsieh, Chen-Fang Kang, Zong-Liang Tseng, Yu-Cheng Chang, An-Chieh Chung, and **Jian-Fu Tang***, Growth of Metal doped ZnO Nanostructure For UV Photodetector using Thin Film Metallic Glass dopant source. (IEDMS 2023) (高雄), 1038.
- D8. **Jian-Fu Tang**, Bo-Ruei Lu, Jung-En Tsao, Fu-Chi Yang, Chi-Lung Chung*, Study of microstructure and mechanical properties of AlCrTiZrW high entropy alloy coating by high-power impulse magnetron sputtering. (AEPSE 2023) (南韓), B_1012.
- D9. **Jian-Fu Tang**, Jung-En Tsao, Bo-Ruei Lu, Fu-Chi Yang, Chi-Lung Chung*, Influence of target composition on the properties of AlCrN film grown by high power impulse magnetron sputtering. (AEPSE 2023) (南韓), B_1011.
- D10. Jing-Hsuan Lina, Yi-Lun Chen, Yu-Ching Chen, **Jian-Fu Tang***, Zong-Liang Tseng, Metal Reaction Layer for Cholesterol Biosensor Nanorods and Nanowalls. (SDSE 2023) (新北市)
- D11. Chi-Lung Chang, Guan-Lun Shen, Fu-Chi Yang and **Jian-Fu Tang***, Characterizations and drill performance of AlCrTiN coatings deposited with various target power and bias voltage by high power impulse magnetron sputtering. 13Th International Conference on HIPIMS (HIPIMS 2023) (荷蘭)
- D12. Cheng-Ho Hsieh, Zong-Liang Tseng, **Jian-Fu Tang***, An-Chieh Chung, Effect of hole-transport layer materials on the enhancement of FAPbI₃ perovskite quantum dot near-infrared photodetector. International Conference on Smart Sensors (ICSS2023) (臺南), 230081.
- D13. Cheng-Ho Hsieh, **Jian-Fu Tang***, Bo-Hao Liu, Tsung-Lin Wu, An-Chieh Chung, Growth of ZnO Nanorods and Nanowalls Using Thin Film Metallic Glass For Photodetector. International Forum in Plasma and Thin Film Technologies for Sustainable Development Goals (PTSDG2023) (新北市), P04-7.

- D14. **Jian-Fu Tang***, Cheng-Ho Hsieh, Bo-Hao Liu and Tsung-Lin Wu. Synthesis and characterization of Al doped ZnO hybrid nanostructure for photodetector application. IEEE International Conference on APPLIED SYSTEM INNOVATION (IEEE ICASI 2023) (日本東京), J230302.
- D15. **Jian-Fu Tang***, Cheng-Ho Hsieh, Bo-Hao Liu and Tsung-Lin Wu. AZO Nanostructure-GZO thin film Composites for cholesterol biosensor. (IEDMS 2022) (南投), 5118.
- D16. Po-Yuan Huang, **Jian-Fu Tang**, Bo-Ruei Lu, Zu-Hao Wang, Fu-Chi Yang and Chi-Lung Chang. Study on microstructure and antimicrobial properties of Zr-Cu-Ti thin film metallic glasses deposited by high power impulse magnetron sputtering. (TACT2021) (臺北), F-O-027.
- D17. Kuo-Chun Lo, **Jian-Fu Tang**, Chi-Lung Chang. Characterization of enhanced TiN coating deposited by an arc-HiPIMS hybrid process: Effect of the power output of HiPIMS. (TACT2021) (臺北), D-O-028.
- D18. Shi-Yu Huang, Fu-Chi Yang, **Jian-Fu Tang**, Chi-Lung Chang. Effect of pulse on-time different of substrate bias and target power output on the performance of TiN deposited by HiPIMS process. (TACT2021) (臺北), D-O-029.
- D19. Ching-Yen Lin, Fu-Chi Yang, **Jian-Fu Tang**, Chi-Lung Chang. Effect of nitrogen-argon flow ratio on the microstructural and mechanical properties of AlCrN coatings prepared using high power impulse magnetron sputtering. (TACT2021) (臺北), D-O-0067.
- D20. Fu-Chi Yang, Ching-Yen Lin, **Jian-Fu Tang**, Chi-Lung Chang. Effect of insert mid-frequency pulses on the microstructural and mechanical properties of AlTiN coatings prepared by HiPIMS process. (TACT2021) (臺北), D-P-66.
- D21. Chun-Hong Huang, Ching-Yen Lin, Fu-Chi Yang, **Jian-Fu Tang**, Chi-Lung Chang. Effect of nitrogen content on the microstructural and mechanical properties of CrTiAlZrSiN coatings prepared by high power impulse magnetron sputtering. (TACT2021) (臺北), F-P-271.
- D22. **唐健富**，張奇龍。晶種層材料與結構對氧化鋅奈米結構的影響。2019 年第十五屆海峽兩岸薄膜科學與技術研討會 (Oral)。
- D23. **Jian-Fu Tang**, Fu-Chi Yang, Ching-Yen Lin, Yi-Jing Tsai, Jenn-Jiang Hwang, and Chi-Lung Chang. Effect of bias voltage on microstructural and performance of CuZrAlNi thin film metallic glass fabricated through HiPIMS technique. (AEPSE 2019) (南韓)
- D24. Yang-Ming Lu, Po-Chin Wang, **Jian-Fu Tang**, Sheng-Yuan Chu (2017, Oct). Dependence of seed layer thickness on sensitivity of nano-ZnO cholesterol biosensor. IOP Conf. Series: Materials Science and Engineering.
- D25. **Jian-Fu Tang**, Sheng-Yuan Chu (2016, May). Growth of Vertically Aligned Al-Doped ZnO Nanorod-Nanowalls Via Chemical Bath Deposition. 229th ECS Meeting-The Electrochemical Society, San Diego CA.

D26. **Jian-Fu Tang**, Sheng-Yuan Chu (2013, Oct). Hydrothermal growth of ZnO nanostructures using patterned substrates for ultraviolet detection. IEEE Nanotechnology Materials and Devices Conference.

D27. **Jian-Fu Tang**, Yang-Ming Lu. Growth of Al-doped ZnO nanorods by hydrothermal process at low temperature. 國際奈米科技研討會(OPTIC) 2010

E. National Technical Journal (國內技術期刊)

E1. **唐健富**，羅國峻，楊復期，張奇龍。新穎複合式電漿源硬質鍍膜技術。真空科技，33 卷，第二期，52-62 頁。2020

F. 國內研討會期刊

F1. 謝程和、曹榮恩、黃彥誠、林宇軒、陳冠融、張奇龍、唐健富*，簡易合成雙層奈米多孔結構運用於膽固醇生醫感測器。(民生電子研討會 2023) (桃園), A15

F2. 謝程和、張育誠、曾宗亮、廖正國、唐健富*，室溫中合成高穩定度的鈣鈦礦 CsPbX₃/SiO₂ 奈米晶體材料製備出白光發光二極體。(民生電子研討會 2023) (桃園), B02.

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G. 專利發明

H. 校外計畫

H1. 國科會新進人員研究計畫，「特殊技術製備金屬和非金屬摻雜氧化鋅奈米結構提升感測器效能及電路系統開發 (110-2222-E-262-002-MY3)」，**主持人**，執行期間 **2021/08---2024/10**.

H2. 國科會專題研究計畫，「結合生物相容性微奈米結構製作可撓分散反饋雷射(111-2221-E-027 -037)」，**共同主持人**，執行期間 2022/08---2023/07.

H3. 國科會專題研究計畫，「高功率脈衝磁控濺鍍新功能性薄膜材料開發與應用--總計畫兼子計畫(六):新多元高熵合金薄膜開發在耐磨損、抗沾黏與抗菌性應用研究(111-2221-E-131-026)」，**共同主持人**，執行期間 2022/08---2023/07.

- H4. 國科會專題研究計畫，「同步偏壓與陰極時序系統在高功率脈衝磁控濺鍍鋁基氮碳化物薄膜之微結構、機械性質與印刷電路板鑽孔效應之研究(110-2221-E-131-006)」，共同主持人，執行期間 2021/08---2022/07.
- H5. 國科會大專學生研究計畫，「二次水浴法製作高比表面積之 ZnO 奈米樹結構運用於光感測器」，指導老師，執行期間 2022/08---2023/07.
- H6. 國科會大專學生研究計畫，「鹼金屬鉍化合物進行界面修飾以提高鈣鈦礦太陽能電池效率之研究」，指導老師，執行期間 2022/08---2023/07.

I. 校內計畫

J. 指導學生獲獎

- J1. 2022/11/19「2022 年車用電子創新發明競賽」之大專組-創新理念組**榮獲第二名**，參賽學生：**謝程和、劉泊灝、吳宗霖、鍾安絮、曾暄翔**。作品：**結合接觸式生理機能監測與大面積近紅外光座椅改善血液循環系統**。
- J2. 2022/11/19「2022 年車用電子創新發明競賽」之高中職組-創新理念組**榮獲佳作**，參賽學生：**葉宥程、吳啟熹、錢宥文、沈冠綸、陳翌弘**。作品：**車內氣氛燈控制系統結合嬰幼兒乘車玩具**。
- J3. 2022/11/19「2022 年車用電子創新發明競賽」之高中職組-系統實作組**榮獲第一名**，參賽學生：**張鈞凱、張乙藩、林冠廷、翁碩濱、彭世睿**。作品：**觸控電容開關於方向盤之運用**。
- J4. 2023/10/06「2023 桃園青創力 學生創業競賽」**榮獲優選**，參賽學生：**楊智元、陳泓宇、鍾安絮**。作品：**光天化日下絲自療天**。
- J5. 2023/10/06「2023 Smart Devices and Sustainable Energy」**榮獲論文競賽佳作**，參賽學生：**Jiag-Hsuan Lin、Yi-Lun Chen、Yu-Ching Chen**。作品：**Metal Reaction Layer for Cholesterol Biosensor Nanorods and Nanowalls**。
- J6. 2023/12/16「2023 民生電子國際研討會」**榮獲論文競賽佳作**，參賽學生：**謝程和、張育誠、廖正國**。作品：**室溫中合成高穩定度的鈣鈦礦 CsPbX₃/SiO₂ 奈米晶體材料製備出白光發光二極體**。
- J7. 2023/12/16「2023 民生電子國際研討會」**榮獲論文競賽佳作**，參賽學生：**謝程和、曹榮恩、黃彥誠、林宇軒、陳冠融**。作品：**簡易合成雙層奈米多孔結構運用於膽固醇生醫感測器**。
- J8. 2024/07/10-07/12「2024 IEEE International Workshop on Electromagnetics : Applications and Student Innovation Competition (iWEM 2024)」**榮獲 Best Post Paper Award**，參賽學生：**Cheng-Ho Hsieh、Yu-Xuan Lin、Guan-Rong Chen**。作品：**Metal Oxide nanostructure as a sensitive layer for surface acoustic wave hydrogen gas sensor**。

K. 指導學生專題成果報告

L. National Technical Journal (國內技術期刊)

M. 技術報告

N. 專書及專書論文

O. 技術轉移

P. 產官學研計畫案
