

# Prof. 電機工程學系蘇文生(Vin-Cent Su)

Phone: +886-37382456 (O)

Dept. of Electric Engineering, National United U.

2 Lien-Da Rd., MiaoLi City 36063, Taiwan

E-Mail: vcsu@nuu.edu.tw

## I. Main Education (學歷)

畢業學校

國立臺灣大學 博士 2008/09~2013/12

國立臺灣大學 碩士 2006/09 ~2008/06

主修學系            電子工程學研究所

## II. Research Fields (Expertise 研究專長)

超穎半導體材料、超穎表面、超穎透鏡、高電子遷移率電晶體、發光二極體製程技術、微/奈米結構製程技術、半導體製程技術、元件模型與模擬

### **III. Personal Experiences (履歷)**

國立聯合大學電機工程系-副教授 2021/02 ~ 迄今

國立聯合大學電機工程系-助理教授 2017/08 ~ 2021/01

國立臺灣大學-博士後研究人員 2014/01 ~ 2017/07

### **V. Publication Papers & Projects (近年發表之論文與研究計劃)**

#### A. Journal Papers:

1. Vin-Cent Su and Chia-Chun Gao (2020, Dec). Remote GaN metalens applied to white light-emitting diodes. Optics Express, 28(26), 38883-38891. 本人為第一作者、通訊作者.
2. Lin Li, Zexuan Liu, Xifeng Ren, Shuming Wang, Vin-Cent Su, Mu-Ku Chen, Cheng Hung Chu, Hsin Yu Kuo, Biheng Liu, Wenbo Zang, Guangcan Guo, Lijian Zhang, Zhenlin Wang, Shining Zhu, Din Ping Tsai (2020, Jun). Metalensarray-based high-dimensional and multiphoton quantum source. SCIENCE, 368,1487–1490 .
3. Ren Jie Lin, Vin-Cent Su, Shuming Wang, Mu Ku Chen, Tsung Lin Chung, Yu Han Chen, Hsin Yu Kuo, Jia-Wern Chen, Ji Chen, Yi-Teng Huang, Jung-Hsi Wang, Cheng Hung Chu, Pin Chieh Wu, Tao Li, Zhenlin Wang, Shining Zhu, and Din Ping Tsai (2019, Jan). Achromatic metalens array for full-colour light-field imaging. Nature Nanotechnology. 本人為第一作者.

4. Vin-Cent Su, Cheng Hung Chu, Greg Sun, and Din Ping Tsai (2018, May). Advances in metasurfaces: fabrication and applications. *Optics Express*. 本人為第一作者.
5. Po-Hsun Chen, Vin-Cent Su, Shang-Hsuan Wu, Ray-Ming Lin, Chieh-Hsiung Kuan (2018, Jan). Defect reduction in GaN on dome-shaped patterned-sapphire substrates. *Optical Materials*, 76 (2018) 368-374.
6. Shuming Wang, Pin Chieh Wu, Vin-Cent Su, Yi-Chieh Lai, Mu-Ku Chen, Hsin Yu Kuo, Bo Han Chen, Yu Han Chen, Tzu-Ting Huang, Jung-Hsi Wang, Ray-Ming Lin, Chieh-Hsiung Kuan, Tao Li, Zhenlin Wang, Shining Zhu, and Din Ping Tsai (2018, Jan). A broadband achromatic metalens in the visible. *Nature Nanotechnology*. 本人為第一作者.
7. Bo Han Chen, Pin Chieh Wu, Vin-Cent Su, Yi-Chieh Lai,, Cheng Hung Chu, I Chen Lee, Jia-Wern Chen, Yu Han Chen, Yung-Chiang Lan, Chieh-Hsiung Kuan, and Din Ping Tsai (2017, Sep). GaN Metalens for Pixel-Level Full-Color Routing at Visible Light. *Nano Letters*, 17, 6345-6352 . 本人為第一作者.
8. Chun Nien, Li-Cheng Chang, Jia-Hao Ye, Vin-Cent Su, Chao-Hsin Wu, and Chieh-Hsiung Kuan (2017, Sep). Proximity effect correction in electron-beam lithography based on computation of critical-development time with swarm intelligence. *Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures*.
9. Li-Cheng Chang, Chun Nien, Jia-Hao Ye, Cheng-Huan Chung, Vin-Cent Su, Chao-Hsin Wu and Chieh-Hsiung Kuan (2017, Sep). A comprehensive model for sub-10 nm electronbeam patterning through the short-time and cold development. *Nanotechnology*.

10. Shuming Wang, Pin Chieh Wu, Vin-Cent Su, Yi-Chieh Lai, Cheng Hung Chu, Jia-Wern Chen, Shen-Hung Lu, Ji Chen, Beibei Xu, Chieh-Hsiung Kuan, Tao Li, Shining Zhu, and Din Ping Tsai (2017, Aug). Broadband Achromatic Optical Metasurface Devices. Nature Communications. 本人為共同第一作者.
11. Kung-Chu Ho, Vin-Cent Su, Da-Yo Huang, Ming-Lun Lee, Nai-Kuan Chou, Chieh-Hsiung Kuan (2016, Dec). Investigation of low frequency electrolytic solution behavior with an accurate electrical impedance method. Chemical Physics Letters. 本人為共同第一作者.
12. Yao-Hong You, Vin-Cent Su, Ti-En Ho , Bo-Wen Lin , Ming-Lun Lee , Atanu Das , Wen-Ching Hsu , Chieh-Hsiung Kuan and Ray-Ming Lin (2014, Nov). Influence of patterned sapphire substrates with different symmetry on the light output power of InGaN-based LEDs. Nanoscale Research Letters.
13. Ming-Lun Lee, Yao-Hong You, Ray-Ming Lin, Cheng-Ju Hsieh, Vin-Cent Su, Po-Hsun Chen, and Chieh-Hsiung Kuan (2014, Jun). Utilizing Two-Dimensional Photonic Crystals in Different Arrangement to Investigate the Correlation Between the Air Duty Cycle and the Light Extraction Enhancement of InGaN-Based Light-Emitting Diodes. IEEE Photonics Journal.
14. Vin-Cent Su, Po-Hsun Chen, Ray-Ming Lin, Ming-Lun Lee, Yao-Hong You, Chung-I Ho, Yi-Chi Chen, Wei-Fan Chen, and Chieh-Hsiung Kuan (2013, Dec). Suppressed quantum-confined Stark effect in InGaN-based LEDs with nano-sized patterned sapphire substrates. Optics Express. MOST 102-2221-E-002-151-MY3. 本人為第一作者.

15. Chung-I Ho, Wei-Chieh Liang, Dan-Ju Yeh, Vin-Cent Su, Po-Chuan Yang, Shih-Yen Chen, Tsai-Ting Yang, Jeng-Han Lee, Chieh-Hsiung Kuan, I-Chun Cheng, and Si-Chen Lee (2013, Apr). Influence of the absorber layer thickness and rod length on the performance of three-dimensional nanorods thin film hydrogenated amorphous silicon solar cells. JOURNAL OF APPLIED PHYSICS.
16. Chung-I Ho, Dan-Ju Yeh, Vin-Cent Su, Chieh-Hung Yang, Po-Chuan Yang, Ming-Yi Pu, Chieh-Hsiung Kuan, I-Chun Cheng, and Si-Chen Lee (2012, Sep). Plasmonic multilayer nanoparticles enhanced photocurrent in thin film hydrogenated amorphous silicon solar cells. JOURNAL OF APPLIED PHYSICS.
17. I.S. Lin, V.C. Su, J.B. Kuo, D. Chen, C.S. Yeh, C.T. Tsai, M. Ma (2008, Oct). Analysis of STI-induced mechanical stress-related Kink effect of 40 nm PD SOI NMOS devices biased in saturation region. Solid-State Electronics.
18. V. C. Su, I. S. Lin, J. B. Kuo, Fellow, IEEE, G. S. Lin, D. Chen, C. S. Yeh, C. T. Tsai, and M. Ma (2008, Jun). Breakdown Behavior of 40-nm PD-SOI NMOS Device Considering STI-Induced Mechanical Stress Effect. IEEE ELECTRON DEVICE LETTERS. 本人為第一作者.
19. V. C. Su, James B. Kuo, Fellow, IEEE, I. S. Lin, Guan-Shyan Lin, David C. Chen, Chune-Sin Yeh, Member, IEEE, Cheng-Tzung Tsai, and Mike Ma (2008, Jun). Shallow-Trench-Isolation (STI)-Induced Mechanical-Stress-Related Kink-Effect Behaviors of 40-nm PD SOI NMOS Device. IEEE TRANSACTIONS ON ELECTRON DEVICES. 本人為第一作者