

Selected Publication

1. C. M. Raghavan, T-P Chen., S-S Li, W-L Chen, C-Y Lo, Y-M Liao, Golam Haider, C-C Lin, C-C Chen, Raman Sankar, Y-M Chang, F-C Chou, and Chun-Wei Chen*, “ *Low Threshold Lasing from 2D Homologous Organic-Inorganic Hybrid Ruddlesden-Popper Perovskite Single-Crystals*”, *Nano Letters*, 18,3221, (2018)
2. Tzu-Pei Chen, Chung-Wei Lin, Shao-Sian Li, Yung-Han Tasi, Cheng-Yen Wen, Wendy Jessica Lin, Fei-Man Hsiao, Ya-Ping Chiu, Kazuhito Tsukagoshi, Minoru Osada,* Takayoshi Sasaki, and Chun-Wei Chen*, “ *Self-assembly atomic stacking transport layer of two-dimensional layered titania for perovskite solar cells with extended UV stability*”, *Advanced Energy Materials*, 8, 1701722, (2018)
3. Min-Chuan Shih, Shao-Sian Li, Cheng-Hua Hsieh, Ying-Chiao Wang, Hung-Duen Yang, Ya-Ping Chiu* ,Chia-Seng Chang, and Chun-Wei Chen*, “*Spatially-resolved imaging on photocarrier generations and band alignments at perovskite/PbI₂ hetero-interfaces of perovskite solar cells by light-modulated scanning tunneling microscopy*”, *Nano Letters* ,17, 1154, (2017)
4. Shao-Sian Li, Chi-Huang Chang, Ying-Chiao Wang, Di-Yan Wang, Jou-Chun Lin, Chia-Chun Chen, Wei-Ru Wu, U-Ser Jeng, Chi-Te Liang, Fang-Cheng Chou and Chun-Wei Chen*, " *Intermixing-seeded growth for high-performance planar heterojunction perovskite solar cells assisted by precursor-capped nanoparticles* ", *Energy & Environmental Science*, 9, 1282-1289 (2016) ([ISL Highly cited paper](#))
5. Po-Hsun Ho, Chun-Hsiang Chen, Fu-Yu Shih, Yih-Ren Chang; Shao-Shen Li, Wei-Hua Wang, Min-Chuan Shih, Wei-Ting Chen, Ya-Ping Chiu, Min-Ken Li, Yi-Siang Shih, and Chun-Wei Chen*, " *Precisely-controlled ultrastrong photoinduced doping at graphene-heterostructures assisted by trap-state-mediated charge transfer* ", *Advanced Materials*, 27, 7809, (2015)
6. Po-Hsun Ho, Yi-Ting Liou, Chien-Hsun Chuang, Shih-Wei Lin, Chi-Yang Tseng, Di-Yan Wang, Chia-Chun Chen, Wen-Yi Hung, Cheng-Yen Wen and Chun-Wei Chen*, " *Self-Crack-Filled Graphene Films by Metallic Nanoparticles for High-Performance Graphene Heterojunction Solar Cells*", *Advanced Materials* 27(10), 1724, (2015)

7. Po-Hsun Ho, Shao-Sian Li, Yi-Ting Liou, Cheng-Yen Wen, Yi-Hsuan Chung and Chun-Wei Chen*, "Wavelength-Selective Dual p- and n-Type Carrier Transport of an Organic/Graphene/Inorganic Heterostructure", **Advanced Materials** 27(2), 282, (2015)
8. Po-Hsun Ho, Wei-Chen Lee, Yi-Ting Liou, Ya-Ping Chiu, Yi-Siang Shih, Chun-Chi Chen, Pao-Yun Su, Min-Ken Li, Hsuen-Li Chen, Chi-Te Liang and Chun-Wei Chen*, "Sunlight-Activated Graphene-Heterostructure Transparent Cathodes: Enabling High-Performance n-Graphene/p-Si Schottky Junction Photovoltaics ", **Energy & Environmental Science**, 8, 2085, (2015)
9. Di-Yan Wang, I-Sheng Huang, Po-Hsun Ho, Shao-Sian Li, Yun-Chieh Yeh, Duan-Wei Wang, Wei-Liang Chen, Yu-Yang Lee, Yu-Ming Chang, Chia-Chun Chen,* Chi-Te Liang, Chun-Wei Chen*," Clean-Lifting Transfer of Large-area Residual-Free Graphene Films", **Advanced Materials**, Vol.25, 4521, (2013)
10. Ying-Chiao Wang, Di-Yan Wang, You-Ting Jiang, Hsin-An Chen, Chia-Chun Chen*, Kuo-Chuan Ho, Hung-Lung Chou, and Chun-Wei Chen*, "FeS₂ Nanocrystals Ink as Catalytic Electrode for Dye-Sensitized Solar Cells, **Angew. Chem. Int. Ed.** 52,6694, (2013) (*ISI, Highly cited paper*)
11. Chih-Tao Chien, Shao-Sian Li, Wei-Jung Lai, Yun-Chieh Yeh, Hsin-An Chen, I-Shen Chen, Li-Chyong Chen, Kuei-Hsien Chen, Takashi Nemoto, Seiji Isoda, Mingwei Chen, Takeshi Fujita, Goki Eda, Hisato Yamaguchi, Manish Chhowalla and Chun-Wei Chen*, "Tunable Photoluminescence from Graphene oxide", **Angew. Chem. Int. Ed.**, Vol.51, 6662, (2012) (*ISI, Highly cited paper*)
12. Min-Chuan Shih, Bo-Chao Huang, Chih-Cheng Lin, Shao-Sian Li, Hsin-An Chen, Ya-Ping Chiu*, Chun-Wei Chen* "Atomic-Scale Interfacial Band Mapping across Vertically Phased-Separated Polymer/Fullerene Hybrid Solar Cells", **Nano Letters**, Vol. 13, 2387, (2013)
13. Po-Hsun Ho, Yun-Chieh Yeh, Di-Yan Wang, Shao-Sian Li, Hsin-An Chen, Yi-Hsuan Chung, Chih-Cheng Li, Wei-Hua Wang and Chun-Wei Chen*," Self-encapsulated doping of n-type graphene transistors with extended air-stability", **ACS Nano**, Vol.6, 6251, (2012)
14. Di-Yan Wang, You-Ting Jiang, Chih-Cheng Lin, Shao-Sian Li, Yaw-Tyng Wang, Chia-Chun Chen,* Chun-Wei Chen*," Solution-Processable Pyrite FeS₂ Nanocrystals for the Fabrication of Heterojunction Photodiodes with Visible to Near Infrared Photodetection", **Advanced Materials**, Vol.24, 3415, (2012)

15. Shao-Yu Chen, Po-Hsun Ho, Ren-Jye Shiue, Chun-Wei Chen*, and Wei-Hua Wang*, “*Transport/magnetotransport of high-performance graphene transistors on organic molecule-functionalized substrates*”, **Nano Letters**, Vol. 12, 964, (2012)
16. Yu-Ying Lee, Kun-Hua Tu, Chen-Chieh Yu, Shao-Sian Li, Jeong-Yuan Huang, Chih-Cheng Lin, Kuei-Hsien Chen, Li-Chyong Chen, Hsuen-Li Chen, Chun-Wei Chen*, “*Top laminated graphene electrode in a semitransparent polymer solar by simultaneous thermal annealing/releasing method*”, **ACS Nano**, 8, 6564, (2011)
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18. Chih-Cheng Lin, Yun-Yue Lin, Shao-Sian Li, Chen-Chieh Yu, Chi-Liang Huang, Shun-Han Lee, Chao-Hung Du, Jey-Jau Lee, Hsuen-Li Chen and Chun-Wei Chen*, “*Electric field assisted self-organization of polymer:fullerene hybrids on the photovoltaic performance*”, **Energy and Environmental Science**, 4, 2134, (2011).
19. Shao-Sian Li, Ching-Pin Chang, Chih-Cheng Lin, Yun-Yue Lin, Chia-Hao Chang, Jer-Ren Yang, Ming-Wen Chu, and Chun-Wei Chen* “*Interplay of three-dimensional morphologies and photocarrier dynamics of polymer/TiO₂ Bulk heterojunction solar cell*”, **Journal of American Chemical Society**, 133, 11614, (2011)
20. Shao-Sian Li, Kun-Hua Tu, Chih-Cheng Lin, Chun-Wei Chen*, Manish Chhowalla, “*Solution processable graphene oxide as an efficient hole transport layer in polymer solar cells*” **ACS Nano**, Vol. 4, 3169, (2010) ([*ISI, Highly cited paper*](#))
21. Goki Eda, Yun-Yue Lin, Cecilia Mattevi, Hisato Yamaguchi, Hsin-An Chen, I-Sheng Chen, Chun-Wei Chen*, and Manish Chhowalla*, “*Blue photoluminescence from chemically derived graphene oxide*”, **Advanced Materials**, Vol. 22, 505, (2010) ([*ISI, Highly cited paper*](#))
22. Yun-Yue Lin, Shao-Sian Li, Tsung-Hung Chu, Chia-Hao Chuang, Chia-Hao Chang, Wei-Fang Su, Ching-Pin Chang, Ming-Wen Chu and Chun-Wei Chen*, “*Interfacial nanostructuring on the performance of polymer/TiO₂ nanorod bulk heterojunction solar cells*”, **Journal of American Chemical Society**, (JACS), 131, 3644, (2009) ([*ISI, Highly cited paper*](#))