

Publication list in last 5 years:

1. S.-H. Wang, F. Khurshid, P.-Z. Chen, Y.-R. Lai, C.-W. Cai, P.-W. Chung, M. Hayashi, R.-J. Jeng, S.-P. Rwei, **L. Wang** "Solution-processable naphthalene diimide-based conjugated polymers as organocatalysts for photocatalytic CO₂ reaction with extremely stable catalytic activity for over 330 Hours," *Chem. Mater.*, 2022, 34, 4955–4963.
2. S.-H. Wang, P.-Z. Chen, Y.-Y. Chen, F. Khurshid, C.-W. Cai, Y.-Y. Lai, P.-W. Chung, R.-J. Jeng, S.-P. Rwei, **L. Wang** "Naphthalene diimide-based donor-acceptor-donor small molecules as metal-free organocatalysts for photocatalytic CO₂ reaction," *ACS Appl. Mater. Interface*, 2022, 14, 43109–43115.
3. Y. S. Tingare, C. Su, J.-H. Lin, Y.-C. Hsieh, H.-J. Lin, Y.-C. Hsu, M.-C. Li, G.-L. Chen, K.-W. Tseng, Y.-H. Yang, **L. Wang**, H. Tsai, W. Nie, W.-R. Li "Benzimidazole based hole-transporting materials for high-performance inverted perovskite solar cells," *Adv. Funct. Mater.*, 2022, 32, 2201933.
4. L.-Y. Su, H.-H. Huang, C.-E. Tsai, C.-H. Hou, J.-J. Shyue, C.-H. Lu, C.-W. Pao, M.-H. Yu, **L. Wang**, C.-C. Chueh "Improving thermal and photostability of polymer solar cells by robust interface engineering," *Small*, 2022, 18, 2107834.
5. H. Tsai, H.-H. Huang, J. Watt, C.-H. Hou, J. Strzalka, J.-J. Shyue, **L. Wang**, W. Nie "Cesium lead halide perovskite nanocrystals assembled in metal-organic frameworks for stable blue light emitting diodes," *Adv. Sci.*, 2022, 9, 2105850.
6. S. Shrestha, X. Li, H. Tsai, C.-H. Hou, H.-H. Huang, D. Ghosh, J.-J. Shyue, **L. Wang**, S. Tretiak, X. Ma, W. Nie "Long carrier diffusion length in two-dimensional lead halide perovskite single crystals," *Chem*, 2022, 8, 1107-1120.
7. H. Tsai, S. Shrestha, L. Pan, H.-H. Huang, J. Strzalka, D. Williams, **L. Wang**, L. R. Cao, W. Nie "Quasi-2D perovskite crystalline layers for printable direct conversion X-Ray imaging," *Adv. Mater.*, 2022, 34, 2106498.
8. S.-H. Wang, R. Raja, C.-Y. Hsiow, F. Khurshid, H.-R. Yang, P.-W. Chung, Y.-Y. Lai, R.-J. Jeng, **L. Wang** "Chromatic fulleropyrrolidine as long-lived metal-free catalyst for CO₂ photoreduction reaction," *ChemSusChem*, 2022, e202102476.
9. H. Tsai, D. Ghosh, W. Panaccione, L.-Y. Su, C.-H. Hou, **L. Wang**, L. R. Cao, S. Tretiak, W. Nie "Addressing the voltage induced instability problem of perovskite semiconductor detectors," *ACS Energy Lett.*, 2022, 7, 3871-3879.
10. W.-C. Lai, S.-H. Wang, H.-S. Sun, C.-W. Liao, T.-Y. Liu, H.-T. Lee, H.-R. Yang, **L. Wang**, Y.-Y. Lai "Stable and exclusive formation of CO from CO₂ photoreduction with H₂O facilitated by linear fluorene and naphthalene diimide-based conjugated polymers," *ACS Appl. Polym. Mater.*, 2022, 4, 521–526.
11. A. Kato, L.-Y. Su, Y.-C. Lin, **L. Wang**, W.-C. Chen, C.-C. Chueh, T. Higashihara "Naphthalene-diimide-based all-conjugated block copolymer as an effective compatibilizer to improve the

- performance and thermal stability of all-polymer solar cells” *Mater. Chem. Front.*, 2021, 5, 7216 – 7227.
12. H.-H. Huang, H. Tsai, R. Raja, S.-L. Lin, D. Ghosh, C.-H. Hou, J.-J. Shyue, S. Tretiak, W. Chen, K.-F. Lin, W. Nie, **L. Wang** “Robust unencapsulated perovskite solar cells protected by a fluorinated fullerene Electron transporting layer,” *ACS Energy Lett.*, 2021, 6, 3376 – 3385.
 13. M. Czichy, A. Colombo, P. Wagner, P. Janasik, C. Dragonetti, R. Raja, D. L. Officer, **L. Wang** “Exohedral functionalization of fullerene by substituents controlling of molecular organization for spontaneous C₆₀ dimerization in liquid crystal solutions and in a bulk controlled by a potential” *Polymers*, 2021, 13, 2816.
 14. H.-H. Huang, Q.-H. Liu, H. Tsai, S. Shrestha, L.-Y. Su, P.-T. Chen, Y.-T. Chen, T.-A. Yang, H. Lu, C.-H. Chuang, K.-F. Lin, S.-P. Rwei, W. Nie, **L. Wang** “A simple one-step method with wide processing window for high-quality perovskite mini-module fabrication” *Joule*, 2021, 5, 958 – 974.
 15. C.-Y. Chang, H.-H. Huang, H. Tsai, S.-L. Lin, P.-H. Liu, W. Chen, F.-Ch. Hsu, W. Nie, Y.-F. Chen, **L. Wang** “Facile fabrication of self-assembly functionalized polythiophene hole transporting layer for high performance perovskite solar cells,” *Adv. Sci.*, 2021, 8, 2002718.
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 20. Z. Li, S.-H. Wang, J. Cui, Y. Wang, J. Zhang, P. Xu, M. Zhou, **L. Wang**, H.-L. Wang “C₆₀(OH)₁₂ and its nanocomposite for high-performance lithium storage” *ACS Nano*, 2020, 14, 1600-1608.
 21. S.-H. Wang, R. Raja, S.-W. Yu, R.-J. Jeng, J.-C. Chen, S.-P. Rwei, **L. Wang** “Highly crystalline two-dimensional copolymer with dominant face-on orientation for high-performance polymer solar cells” *Eur. Polym. J.*, 2020, 134, 109799.
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25. H.-C. Hsieh, C.-Y. Hsiow, Y.-A. Su, Y.-C. Liu, W. Chen, W.-Y. Chiu, Y.-C. Shih, K.-Fu Lin, **L. Wang** “Two-dimensional polythiophene homopolymer as promising hole transport material for high-performance perovskite solar cells” *J. Power Sources*, 2019, 426, 55-60.
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32. K. Elavarasan, C. Saravanan, N. Panneer, Y.-J. Hsieh, Y.-M. Chang, **L. Wang** “[60]Fullerene-quinoxaline, benzothiadiazole and benzoselenadiazole based dyads for thermally stable polymer solar cells: anchoring of substituent on fullerene with a poly(3-hexylthiophene) polymer chain” *Polym. Int.*, 2018, 67, 1555–1562.
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