Publications

- **Five most representative publications in the last five years:**

1. **S.-J. Wang**, A. Kirch, M. Sawatzki, T. Achenbach, H. Kleemann, S. Reineke and K. Leo, "Highly crystalline rubrene light-emitting diodes with epitaxial growth", *Adv. Funct. Mater.* **33**, 2213768 (2023). [Author 1 of 7]
2. **S.-J. Wang**, S. Wohlrab, H. Reith, D. Berger, H. Kleemann, K. Nielsch, and K. Leo, "Doped Organic Micro-Thermoelectric Coolers with Rapid Response Time", *Adv. Electron. Mater*. **8**, 2200629 (2022). [Author 1 of 7]
3. **S.-J. Wang**, M. Sawatzki, G. Darbandy, F. Talnack, J. Vahland, M. Malfois, A. Kloes, S. Mannsfeld, H. Kleemann and K. Leo, "Organic bipolar transistors", *Nature* **606**, 7915, 700 (2022). [Author 1 of 10]
4. **S.-J. Wang**, M. Panhans, I. Lashkov, H. Kleemann, F. Caglieris, D. Becker-Koch, J. Vahland, E. Guo, S. Huang, Y. Krupskaya, Y. Vaynzof, B. Büchner, F. Ortmann and K. Leo, "Highly efficient modulation doping: A path towards superior organic thermoelectric devices", *Sci. Adv.*, **8**, eabl9264 (2022). [Author 1 of 14]
5. **S.-J. Wang**, D. Venkateshvaran, M. Mahani, U. Chopra, E. McNellis, R. Di Pietro, A. Wittmann, G. Schweicher, M. Cubukcu, K. Kang, R. Carey, S. Egorov, S. Mueller, J. Siebrecht, T. Wagner, C. Jellett, M. Little, I. McCulloch, J. Wunderlich, J. Sinova, and H. Sirringhaus, "Long spin diffusion lengths in doped conjugated polymers due to enhanced exchange coupling", *Nat. Electron.* **2**, 98 (2019). [Author 1 of 21]

List of other publications (chronological order)

1. X. Wang, Z. Zhang, P. Li, J. Xu, Y. Zheng, W. Sun, M. Xie, J. Wang, X. Pan, X. Lei, J. Wang, J. Chen, Y. Chen, **S.-J. Wang** and T. Lei, "Ultrastable N-Type Semiconducting Fiber Organic Electrochemical Transistors for Highly Sensitive Biosensors", *Adv. Mater.* 2400287 (2024). [Author 14 of 15]
2. Z. Zhang, R. Ji, X. Jia, **S.-J. Wang**, M. Deconinck, E. Siliavka and Y. Vaynzof, "Semitransparent Perovskite Solar Cells with an Evaporated Ultra-Thin Perovskite Absorber", *Adv. Funct. Mater.* 2307471 (2023). [Author 4 of 7]
3. **S.-J. Wang**, S. Hutsch, F. Talnack, M. Deconinck, S. Huang, Z. Zhang, A.-L. Hofmann, H. Thiersch, H. Kleemann, Y. Vaynzof, S. C. B. Mannsfeld, F. Ortmann and K. Leo, "Band structure engineering in highly crystalline organic semiconductors", *Chem. Mater*. **35**, 18, 7867 (2023). [Author 1 of 13]
4. M. Sawatzki-Park, **S.-J. Wang**, H. Kleemann, and K. Leo, "Highly Ordered Small Molecule Organic Semiconductor Thin-Films Enabling Complex, High-Performance Multi-Junction Devices", *Chem. Rev.* **123**, 13, 8232, (2023). [Author 2 of 4]
5. **S.-J. Wang**, A. Palatnik, M. Sudzius, F. Talnack, L. Barba, Z. Zhang, D. Pohl, I. Lashkov, C. Hänisch, A. Kirch, J. Vahland, M. Otte, H. Kleemann, S.C.B. Mannsfeld, S. Reineke and K. Leo, "Optical Properties of Crystalline Thin Films of the Organic Laser Gain Material 4,4′-Bis[(N-carbazole)styryl]biphenyl", *ACS Appl. Electron. Mater.* **5**, 1, 375 (2022). [Author 1 of 16]
6. **S.-J. Wang**, M. Sawatzki, H. Kleemann, I. Lashkov, D. Wolf, A. Lubk, F. Talnack, S. Mannsfeld, Y. Krupskaya, B. Büchner and K. Leo, "Vacuum processed large area doped

thin-film crystals: a new approach for high-performance organic electronics", *Mater. Today Phys.* **17**, 100352 (2021). [Author 1 of 11]

7. E. Guo, S. Xing, F. Dollinger, R. Hübner, **S.-J. Wang**, Z. Wu, K. Leo and H. Kleemann, "Integrated complementary inverters and ring oscillators based on vertical-channel dual-base organic thin-film transistors", *Nat. Electron.* **4**, 588 (2021). [Author 5 of 8]
8. Z. Wu, Y. Liu, E. Guo, G. Darbandy, **S.-J. Wang**, R. Hübner, A. Kloes, H. Kleemann and K. Leo, "Efficient and low-voltage vertical organic permeable base light-emitting transistors", *Nat. Mater.* **20**, 1007 (2021). [Author 5 of 9]
9. M. F. Sawatzki, H. Kleemann, B. K. Boroujeni, **S.-J. Wang**, J. Vahland, F. Ellinger and K. Leo, "Doped highly crystalline organic films: toward high-performance organic electronics", *Adv. Sci.* **8**, 6, 2003519 (2021). [Author 4 of 7]
10. I. Lashkov, K. Krechan, K. Ortstein, F. Talnack, **S.-J. Wang**, S. C. B. Mannsfeld, H. Kleemann and K. Leo, "Modulation doping for threshold voltage control in organic field-effect transistors", *ACS Appl. Mater. Interfaces.* **13**, 7, 8664 (2021). [Author 5 of 8]
11. E. Guo, Z. Wu, G. Darbandy, S. Xing, **S.-J. Wang**, A. Tahn, M. Göbel, A. Kloes, K. Leo and H. Kleemann, *Nat. Commun.* **11**, 1, 4725 (2020). [Author 5 of 10]
12. M. Cubukcu, D. Venkateshvaran, A. Wittmann, **S.-J. Wang**, R. Di Pietro, S. Auffret, L. Vila, J. Wunderlich and H. Sirringhaus, *Appl. Phys. Lett.* **112**, 26 (2018). [Author 4 of 9]