

Bibliography

- (1) Kenning, T. Engie and Heliatek launch ‘world’s largest’ OPV system on French school roof | PV Tech., 2017.
- (2) Soneira, R. M. Galaxy S7 and S7 Edge OLED Display Technology Shoot-Out., 2016.
- (3) Soneira, R. M. The Flagship 2017 OLED Smartphones., 2017.
- (4) Dimitrakopoulos, C. D.; Malenfant, P. R. L. *Adv. Mater.* **2002**, *14*, 99–117.
- (5) P. Gaj, M. **2016**, 22.
- (6) Peumans, P.; Yakimov, A.; Forrest, S. R. *Journal of Applied Physics* **2003**, *93*, 3693–3723.
- (7) Park, J. S.; Chae, H.; Chung, H. K.; Lee, S. I. *Semiconductor Science and Technology* **2011**, *26*, DOI: 10.1088/0268-1242/26/3/034001.
- (8) Gu, G.; Burrows, P. E.; Venkatesh, S.; Forrest, S. R.; Thompson, M. E. *Optics letters* **1997**, *22*, 172–174.
- (9) Sugimoto, A.; Ochi, H.; Fujimura, S.; Yoshida, A.; Miyadera, T.; Tsuchida, M. *IEEE Journal of Selected Topics in Quantum Electronics* **2004**, *10*, 107–114.
- (10) Cok, R. S. <Method of manufacturing an OLED device with a curved light emitting surface.pdf>., 2005.
- (11) Han, C.-W.; Park, J.-S.; Choi, H.-S.; Kim, T.-S.; Shin, Y.-H.; Shin, H.-J.; Lim, M.-J.; Kim, B.-C.; Kim, H.-S.; Kim, B.-S.; Tak, Y.-H.; Oh, C.-H.; Cha, S.-Y.; Ahn, B.-C. *Journal of the Society for Information Display* **2014**, *22*, 552–563.
- (12) S ndergaard, R. R.; H sel, M.; Krebs, F. C. *Journal of Polymer Science, Part B: Polymer Physics* **2013**, *51*, 16–34.
- (13) Hung, C.-H. *Manufacturing Process for OLED Integrated Substrate*; tech. rep.; U.S. Department of Energy, 2015.

- (14) Tsujimura, T. In *OLED Displays: Fundamentals and Applications*; John Wiley & Sons, Inc.: Hoboken, New Jersey, 2012, pp 61–98.
- (15) Fahlteich, J.; Steiner, C.; Top, M.; Wynands, D.; Wanski, T.; Mogck, S.; Kucukpinar, E.; Amberg-Schwab, S.; Boeffel, C.; Schiller, N.
- (16) Manners, D. Taiwan’s ITRI building OLED lighting line., 2016.
- (17) Mertens, R. The EU aims to create a European-wide flexible OLED lighting pilot line | OLED-Info., 2016.
- (18) Kalyani, N. T.; Swart, H.; Dhoble, S., *Principles and Applications of Organic Light Emitting Diodes (OLEDs)* - N. Thejo Kalyani, Hendrik Swart, S. J. Dhoble - Google Books; Elsevier: 2017.
- (19) Morrison, G. LED LCD vs. OLED: TV display technologies compared., 2017.
- (20) Rozario, H. Looking for Phones with OLED Displays? Here are Your Best Options., 2017.
- (21) Morrison, G. Phone OLED vs TV OLED: What’s the difference?, 2018.
- (22) Statt, N. LG made an 18-inch display you can roll up like a newspaper - The Verge., 2016.
- (23) OLEDWorks New OLED lighting technology with high efficiency and high flexibility | Printed Electronics World.
- (24) Evangeline, H. Opportunities and Challenges in OLED Lighting Market - LEDinside., 2018.
- (25) NREL Photovoltaic Research | NREL., 2018.
- (26) Schlenker, C. W.; Barlier, V. S.; Chin, S. W.; Whited, M. T.; McAnally, R. E.; Forrest, S. R.; Thompson, M. E. *Chemistry of Materials* **2011**, *23*, 4132–4140.
- (27) Sapkota, S. B.; Spies, A.; Zimmermann, B.; Dürr, I.; Würfel, U. *Solar Energy Materials and Solar Cells* **2014**, *130*, 144–150.
- (28) Gregg, B. A. *The Journal of Physical Chemistry B* **2003**, *107*, 4688–4698.
- (29) Fitzgerald Weaver, J. World’s largest building integrated ‘organic’ solar power installation completed | Electrek., 2017.
- (30) Wesoff, E. Belectric Goes After Building-Integrated PV With Organic Solar Cells | Greentech Media., 2014.
- (31) InfinityPV infinityPV foil., 2018.
- (32) Henion, A. Transparent solar technology represents ‘wave of the future’ | MSUToday | Michigan State University., 2017.

- (33) Cuthbertson, A. TRANSPARENT SOLAR PANELS COULD HARVEST ENERGY FROM WINDOWS AND EVENTUALLY REPLACE FOSSIL FUELS., 2017.
- (34) Briseno, A. L.; Mannsfeld, S. C. B.; Ling, M. M.; Liu, S.; Tseng, R. J.; Reese, C.; Roberts, M. E.; Yang, Y.; Wudl, F.; Bao, Z. *Nature* **2006**, *444*, 913–917.
- (35) Sirringhaus, H. *Advanced Materials* **2014**, *26*, 1319–1335.
- (36) Yun, M.; Sharma, A.; Fuentes-Hernandez, C.; Hwang, D. K.; Dindar, A.; Singh, S.; Choi, S.; Kippelen, B. *ACS Applied Materials and Interfaces* **2014**, *6*, 1616–1622.
- (37) Briseno, A. L.; Tseng, R. J.; Ling, M. M.; Falcao, E. H. L.; Yang, Y.; Wudl, F.; Bao, Z. *Advanced Materials* **2006**, *18*, 2320–2324.
- (38) Pope, M.; Swenberg, C., *Electronic Processes in Organic Crystals and Polymers*, 2nd; Oxford University Press: 1999.
- (39) No Title.
- (40) Neamen, D. A., *Semiconductor Physics and Devices*, 2nd ed.; Irwin: 1992.
- (41) Kittel, C., *Introduction to Solid State Physics*; Wiley: 2005.
- (42) Wallis, R. F.; Balkanski, M., *Semiconductor Physics and Applications*; Oxford: 2000.
- (43) Mark, P.; Helfrich, W. *Journal of Applied Physics* **1962**, *33*, 205.
- (44) Kasap, S. O., *Principles of Electronic Materials and Devices*; McGraw Hill: 1997.
- (45) Turro, N.; Scaiano, J.; Ramamurthy, V., *Modern Molecular Photochemistry of Organic Molecules*; University Science Books: 1991.
- (46) Holmes, R. J.; Forrest, S.; Tung, Y.-J.; Kwong, R. C.; Brown, J. J.; Garon, S.; Thompson, M. E. *Applied Physics Letters* **2003**, *82*, 2422.
- (47) Goushi, K.; Kwong, R.; Brown, J. J.; Sasabe, H.; Adachi, C. *Journal of Applied Physics* **2004**, *95*, 7798–7802.
- (48) Volcker, A. *Chemical physics letters* **1989**, *159*, 103–108.
- (49) Padhye, M. R.; McGlynn, S. P.; Kasha, M. *The Journal of Chemical Physics* **1956**, *24*, 588–594.
- (50) Reineke, S.; Baldo, M. *Scientific Reports* **2014**, *4*, 3797.
- (51) Chan, C.-Y.; Cui, L.-S.; Kim, J. U.; Nakanotani, H.; Adachi, C. *Advanced Functional Materials* **2018**, *1706023*, 1706023.
- (52) Lee, S. Y.; Adachi, C.; Yasuda, T. **2016**, DOI: 10.1002/adma.201506391.

- (53) Inoue, M.; Serevičius, T.; Nakanotani, H.; Yoshida, K.; Matsushima, T.; Juršenas, S.; Adachi, C. *Chemical Physics Letters* **2016**, *644*, 62–67.
- (54) Zhang, Q.; Li, B.; Huang, S.; Nomura, H.; Tanaka, H.; Adachi, C. *Nature Photonics* **2014**, *8*, 1–7.
- (55) Méhes, G.; Goushi, K.; Potscavage, W. J.; Adachi, C. *Organic Electronics: physics, materials, applications* **2014**, *15*, 2027–2037.
- (56) Zhang, Q.; Li, J.; Shizu, K.; Huang, S.; Hirata, S.; Miyazaki, H.; Adachi, C. **2012**, 0–3.
- (57) Endo, A.; Ogasawara, M.; Takahashi, A.; Yokoyama, D.; Kato, Y.; Adachi, C. *Advanced materials (Deerfield Beach, Fla.)* **2009**, *21*, 4802–4806.
- (58) Li, J.; Nakagawa, T.; Macdonald, J.; Zhang, Q.; Nomura, H.; Miyazaki, H.; Adachi, C. *Advanced Materials* **2013**, *25*, 3319–3323.
- (59) Nakanotani, H.; Masui, K.; Nishide, J.; Shibata, T.; Adachi, C. *Scientific reports* **2013**, *3*, 2127.
- (60) Nasu, K.; Nakagawa, T.; Nomura, H.; Lin, C.-J.; Cheng, C.-H.; Tseng, M.-R.; Yasuda, T.; Adachi, C. *Chemical communications (Cambridge, England)* **2013**, *49*, 10385–7.
- (61) Menke, S. M.; Luhman, W. a.; Holmes, R. J. *Nature materials* **2013**, *12*, 152–7.
- (62) Mullenbach, T. K.; McGarry, K. a.; Luhman, W. a.; Douglas, C. J.; Holmes, R. J. *Advanced materials (Deerfield Beach, Fla.)* **2013**, *25*, 3689–93.
- (63) Menke, S. M.; Holmes, R. J. *The Journal of Physical Chemistry C* **2016**, *120*, 8502–8508.
- (64) Reineke, S.; Walzer, K.; Leo, K. *Physical Review B* **2007**, *75*, 125328.
- (65) Ryasnyanskiy, A.; Biaggio, I. *Physical Review B - Condensed Matter and Materials Physics* **2011**, *84*, 2–5.
- (66) Congreve, D. N.; Lee, J.; Thompson, N. J.; Hontz, E.; Yost, S. R.; Reuswig, P. D.; Bahlke, M. E.; Reineke, S.; Van Voorhis, T.; Baldo, M. A. *Science* **2013**, *340*, 334–337.
- (67) Johnson, J. C.; Nozik, A. J.; Michl, J. **2012**, *XXX*, 6891–6936.
- (68) Lee, J.; Jadhav, P.; Reuswig, P. D.; Yost, S. R.; Thompson, N. J.; Congreve, D. N.; Hontz, E.; Van Voorhis, T.; Baldo, M. A. *Accounts of Chemical Research* **2013**, *46*, 1300–1311.
- (69) Shaheen, S. E.; Jabbour, G. E.; Morrell, M. M.; Kawabe, Y.; Kippelen, B.; Peyghambarian, N.; Nabor, M.-F.; Schlaf, R.; Mash, E. A.; Armstrong, N. R. *Journal of Applied Physics* **1998**, *84*, 2324.
- (70) Fujii, A.; Ohmori, Y.; Morishima, C.; Yoshino, K. *Japanese Journal of Applied Physics* **1994**, *33*, L348–L350.

- (71) Stampor, W.; Kalinowski, J.; Di Marco, P.; Fattori, V. *Applied Physics Letters* **1997**, *70*, 1935.
- (72) Erickson, N. C.; Holmes, R. J. *Advanced Functional Materials* **2014**, *24*, 6074–6080.
- (73) Tao, Y.; Yang, C.; Qin, J. *Chemical Society Reviews* **2011**, *40*, 2943.
- (74) Shirota, Y.; Kageyama, H. *Chemical reviews* **2007**, *107*, 953–1010.
- (75) Käfer, D.; Ruppel, L.; Witte, G.; Wöll, C. *Physical Review Letters* **2005**, *95*, 166602.
- (76) Maldonis, J. J.; Hwang, J.; Voyles, P. M. *Computer Physics Communications* **2017**, *213*, 217–222.
- (77) Maldonis, J. J.; Zhang, P.; Besser, M.; Kramer, M.; Voyles, P. M. *Microscopy and Microanalysis* **2015**, *21*, 1659–1660.
- (78) Zhang, P.; Maldonis, J. J.; Liu, Z.; Schroers, J.; Voyles, P. M. *Submitted* **2017**, DOI: [arXiv:1710.04791v2](https://arxiv.org/abs/1710.04791v2).
- (79) Zhang, P.; Maldonis, J. J.; Besser, M. F.; Kramer, M. J.; Voyles, P. M. *Acta Materialia* **2016**, *109*, 103–114.
- (80) Fielitz, T. R.; Holmes, R. J. *Crystal Growth and Design* **2016**, *16*, 4720–4726.
- (81) Scholz, S.; Kondakov, D.; Lüssem, B.; Leo, K. *Chemical Reviews* **2015**, *115*, 8449–8503.
- (82) Baldo, M.; Thompson, M. E.; Forrest, S. *Nature* **2000**, *403*, 750–3.
- (83) Baldo, M.; O’Brien, D.; You, Y.; Shoustikov, A.; Sibley, S.; Thompson, M. E.; Forrest, S. *Nature* **1998**, *395*, 151–154.
- (84) Furno, M.; Meerheim, R.; Thomschke, M.; Hofmann, S.; Lüssem, B.; Leo, K. *Proceedings of SPIE* **2010**, *7617*, ed. by Streubel, K. P.; Jeon, H.; Tu, L.-W.; Linder, N., 761716–761716–12.
- (85) Furno, M.; Meerheim, R.; Hofmann, S.; Lüssem, B.; Leo, K. *Physical Review B* **2012**, *85*, 115205.
- (86) Lampert, M. A. *Reports on Progress in Physics* **2002**, *27*, 329–367.
- (87) Hershey, K. W.; Holmes, R. J. *Journal of Applied Physics* **2016**, *120*, 195501.
- (88) Forrest, S.; Bradley, D.; Thompson, M. E. *Advanced Materials* **2003**, *15*, 1043–1048.
- (89) Smith, T.; Guild, J. *Transactions of the Optical Society* **1931**, *33*, 73–134.
- (90) Wright, W. D. *Transactions of the Optical Society* **1929**, *30*, 141–164.
- (91) Guild, J. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* **1932**, *230*, 149–187.
- (92) Bohn, D. Google updates Pixel 2 XL with new ‘saturated’ color display option and other bug fixes - The Verge., 2017.

- (93) Tang, C. W.; VanSlyke, S. *Applied Physics Letters* **1987**.
- (94) Venkataraman, K., *The chemistry of synthetic dyes*; Elsevier, 2012: 1971.
- (95) Schäfer, F. P.; Drexhage, K. H. *Topics in Applied Physics* **1977**.
- (96) Dresner, J. *RCA REVIEW* **1969**.
- (97) Williams, D. F.; Schadt, M. *Proceedings of the IEEE* **1970**, *58*, 476.
- (98) Helfrich, W.; Schneider, W. G. *Physical Review Letters* **1965**, *14*, 229–231.
- (99) Tang, C. W.; Vanslyke, S. a.; Chen, C. H. *Journal of Applied Physics* **1989**, *65*, 3610–3616.
- (100) O'Brien, D. F.; Baldo, M.; Thompson, M. E.; Forrest, S. *Applied Physics Letters* **1999**, *74*, 442.
- (101) Adachi, C.; Baldo, M.; Forrest, S.; Thompson, M. E. *Applied Physics Letters* **2000**, *77*, 904.
- (102) Su, S. J.; Gonmori, E.; Sasabe, H.; Kido, J. *Advanced Materials* **2008**, *20*, 4189–4194.
- (103) Erickson, N. C.; Holmes, R. J. *Applied Physics Letters* **2010**, *97*, 083308.
- (104) Scholz, S.; Walzer, K.; Leo, K. *Advanced Functional Materials* **2008**, *18*, 2541–2547.
- (105) Uoyama, H.; Goushi, K.; Shizu, K.; Nomura, H.; Adachi, C. *Nature* **2012**, *492*, 234–8.
- (106) Adachi, C.; Baldo, M. A.; Thompson, M. E.; Forrest, S. R. *Journal of Applied Physics* **2001**, *90*, 5048–5051.
- (107) Zhang, Q.; Komino, T.; Huang, S.; Matsunami, S.; Goushi, K.; Adachi, C. *Advanced Functional Materials* **2012**, *22*, 2327–2336.
- (108) Wang, H.; Meng, L.; Shen, X.; Wei, X.; Zheng, X.; Lv, X.; Yi, Y.; Wang, Y.; Wang, P. *Advanced Materials* **2015**, n/a–n/a.
- (109) Liu, X.-K.; Chen, Z.; Zheng, C.-J.; Chen, M.; Liu, W.; Zhang, X.-H.; Lee, C.-S. *Advanced Materials* **2015**, n/a–n/a.
- (110) Kim, K.-H.; Moon, C.-K.; Sun, J. W.; Sim, B.; Kim, J.-J. *Advanced Optical Materials* **2015**, n/a–n/a.
- (111) Jankus, V.; Data, P.; Graves, D.; McGuinness, C.; Santos, J.; Bryce, M. R.; Dias, F. B.; Monkman, A. P. *Advanced Functional Materials* **2014**, n/a–n/a.
- (112) Lavie-Cambot, A.; Cantuel, M.; Leydet, Y.; Jonusauskas, G.; Bassani, D. M.; McClenaghan, N. D. *Coordination Chemistry Reviews* **2008**, *252*, 2572–2584.
- (113) Yersin, H.; Leitl, M. J.; Czerwieniec, R. **2014**, *9183*, 91830N.
- (114) Hofbeck, T.; Monkowius, U.; Yersin, H. *Journal of the American Chemical Society* **2015**, *137*, 399–404.

- (115) Linfoot, C. L.; Leitl, M. J.; Richardson, P.; Rausch, A. F.; Chepelin, O.; White, F. J.; Yersin, H.; Robertson, N. *Inorganic chemistry* **2014**, DOI: 10.1021/ic500889s.
- (116) Reineke, S. *Nature Photonics* **2014**, *8*, 269–270.
- (117) Cho, Y. J.; Yook, K. S.; Lee, J. Y. *Advanced Materials* **2014**, *26*, 4050–4055.
- (118) Song, D.; Zhao, S.; Aziz, H. *Advanced Functional Materials* **2011**, *21*, 2311–2317.
- (119) Wehrmeister, S.; Jäger, L.; Wehlus, T.; Rausch, A. F.; Reusch, T. C. G.; Schmidt, T. D.; Brütting, W. *Physical Review Applied* **2015**, *3*, 1–10.
- (120) Son, K. S.; Yahiro, M.; Imai, T.; Yoshizaki, H.; Nishide, J.; Sasabe, H.; Adachi, C. *Japanese Journal of Applied Physics* **2008**, *47*, 7363–7365.
- (121) Murawski, C.; Leo, K.; Gather, M. C. *Advanced materials (Deerfield Beach, Fla.)* **2013**, *25*, 6801–27.
- (122) Giebink, N. C.; Forrest, S. *Physical Review B* **2008**, *77*, 235215.
- (123) Song, D.; Zhao, S.; Luo, Y.; Aziz, H. *Applied Physics Letters* **2010**, *97*, 243304.
- (124) Xiang, C.; Fu, X.; Wei, W.; Liu, R.; Zhang, Y.; Balema, V.; Nelson, B.; So, F. *Advanced Functional Materials* **2016**, *26*, 1463–1469.
- (125) Coehoorn, R.; Van Eersel, H.; Bobbert, P. A.; Janssen, R. A. J. *Advanced Functional Materials* **2015**, *25*, 2024–2037.
- (126) Reineke, S.; Schwartz, G.; Walzer, K.; Falke, M.; Leo, K. *Applied Physics Letters* **2009**, *94*, 2007–2010.
- (127) Mężyk, J.; Kalinowski, J.; Meinardi, F.; Tubino, R. *Applied Physics Letters* **2005**, *86*, 111916.
- (128) Baldo, M.; Adachi, C.; Forrest, S. *Physical Review B* **2000**, *62*, 10967–10977.
- (129) Köhler, a.; Bässler, H. *Materials Science and Engineering: R: Reports* **2009**, *66*, 71–109.
- (130) Erickson, N. C.; Holmes, R. J. *Advanced Functional Materials* **2013**, *23*, 5190–5198.
- (131) Giebink, N. C.; D’Andrade, B. W.; Weaver, M. S.; MacKenzie, P. B.; Brown, J. J.; Thompson, M. E.; Forrest, S. *Journal of Applied Physics* **2008**, *103*, DOI: 10.1063/1.2884530.
- (132) Coburn, C.; Forrest, S. *Physical Review Applied* **2017**, *7*, 041002.
- (133) Lee, J.; Jeong, C.; Batagoda, T.; Coburn, C.; Thompson, M. E.; Forrest, S. *Nature Communications* **2017**, *8*, 15566.
- (134) Baldo, M.; Holmes, R. J.; Forrest, S. *Physical Review B* **2002**, *66*, 35321.
- (135) Holmes, R. J. *Nature Nanotechnology* **2007**, *2*, 7–8.

- (136) Takenobu, T.; Bisri, S.; Takahashi, T.; Yahiro, M.; Adachi, C.; Iwasa, Y. *Physical Review Letters* **2008**, *100*, 066601.
- (137) Samuel, I. D. W.; Namdas, E. B.; Turnbull, G. a. *Nature Photonics* **2009**, *3*, 546–549.
- (138) Kasemann, D.; Brückner, R.; Fröb, H.; Leo, K. *Physical Review B* **2011**, *84*, 115208.
- (139) Murawski, C.; Liehm, P.; Leo, K.; Gather, M. C. *Advanced Functional Materials* **2014**, *24*, 1117–1124.
- (140) Soofi, H.; Saeidi, S. **2017**, 1–8.
- (141) Chopra, N.; Swensen, J. S.; Polikarpov, E.; Cosimbescu, L.; So, F.; Padmaperuma, A. B. *Applied Physics Letters* **2010**, *97*, 95–98.
- (142) Reineke, S.; Schwartz, G.; Walzer, K.; Leo, K. *Applied Physics Letters* **2007**, *91*, 1–4.
- (143) Lee, J. I. J. Y. J.-I. J.; Lee, J. I. J. Y. J.-I. J.; Lee, J. I. J. Y. J.-I. J.; Chu, H. Y. *Applied Physics Letters* **2009**, *94*, 193305.
- (144) Zang, F. X.; Sum, T. C.; Huan, a. C. H.; Li, T. L.; Li, W. L.; Zhu, F. *Applied Physics Letters* **2008**, *93*, 023309.
- (145) Giebink, N. C.; Sun, Y.; Forrest, S. *Organic Electronics: physics, materials, applications* **2006**, *7*, 375–386.
- (146) Giebink, N. C.; D’Andrade, B. W.; Weaver, M. S.; Brown, J. J.; Forrest, S. *Journal of Applied Physics* **2009**, *105*, 124514.
- (147) Hershey, K. W.; Suddard-Bangsund, J.; Qian, G.; Holmes, R. J. *Applied Physics Letters* **2017**, *111*, 113301.
- (148) Bangsund, J. S.; Hershey, K. W.; Holmes, R. J. *ACS Applied Materials & Interfaces* **2018**, acsami.7b16643.
- (149) Coburn, C.; Lee, J.; Forrest, S. *Advanced Optical Materials* **2016**, *4*, 889–895.
- (150) Reineke, S.; Lindner, F.; Huang, Q.; Schwartz, G.; Walzer, K.; Leo, K. *Physica Status Solidi (B) Basic Research* **2008**, *245*, 804–809.
- (151) Erickson, N. C.; Holmes, R. J. *Journal of Applied Physics* **2011**, *110*, 084515.
- (152) Féry, C.; Racine, B.; Vaufrey, D.; Doyeux, H.; Cinà, S. *Applied Physics Letters* **2005**, *87*, 213502.
- (153) Giebink, N. *Optics InfoBase Conference Papers* **2017**, Part F72-S, 2017.
- (154) Kolosov, D.; English, D. S.; Bulovic, V.; Barbara, P. F.; Forrest, S. R.; Thompson, M. E. *Journal of Applied Physics* **2001**, *90*, 3242–3247.

- (155) Wang, W.; Lim, S. F.; Chua, S. J. *Journal of Applied Physics* **2002**, *91*, 5712–5715.
- (156) Burrows, P. E.; Bulovic, V.; Forrest, S.; Sapochak, L. S.; McCarty, D. M.; Thompson, M. E. *Applied Physics Letters* **1994**, *65*, 2922–2924.
- (157) Aziz, H.; Popovic, Z. D. *Chemistry of Materials* **2004**, *16*, 4522–4532.
- (158) Popovic, Z. D.; Aziz, H. *IEEE Journal on Selected Topics in Quantum Electronics* **2002**, *8*, 362–371.
- (159) Liew, Y.-f.; Aziz, H.; Hu, N.-x.; Chan, H. S.-o.; Xu, G.; Popovic, Z.; Liew, Y.-f.; Chan, H. S.-o. **2006**, *2650*, 1998–2001.
- (160) Melpignano, P.; Baron-Toaldo, A.; Biondo, V.; Priante, S.; Zamboni, R.; Murgia, M.; Caria, S.; Gregoratti, L.; Barinov, A.; Kiskinova, M. *Applied Physics Letters* **2005**, *86*, 1–4.
- (161) Liao, L. S.; He, J.; Zhou, X.; Lu, M.; Xiong, Z. H.; Deng, Z. B.; Hou, X. Y.; Lee, S. T. **2007**, *2386*, 1–6.
- (162) Shin, H. J.; Song, H. J.; Lee, J.; Yoon, H. J.; Chung, J.; Lee, J. C. *Journal of Applied Physics* **2006**, *100*, 1–5.
- (163) Scott, J. C.; Kaufman, J. H.; Brock, P. J.; DiPietro, R.; Salem, J.; Goitia, J. A. *Journal of Applied Physics* **1996**, *79*, 2745–2751.
- (164) Cumpston, B. H. *Journal of Applied Physics* **1997**, *81*, 3716–3720.
- (165) Zhang, Y.; Aziz, H. *ACS Applied Materials and Interfaces* **2016**, *8*, 14088–14095.
- (166) So, F.; Kondakov, D. *Advanced Materials* **2010**, *22*, 3762–3777.
- (167) Zhang, Y.; Lee, J.; Forrest, S. *Nature Communications* **2014**, *5*, 1–7.
- (168) Wu, Z.; Sun, N.; Zhu, L.; Sun, H.; Wang, J.; Yang, D.; Qiao, X.; Chen, J.; Alshehri, S. M.; Ahamad, T.; Ma, D. *ACS Applied Materials and Interfaces* **2016**, *8*, 3150–3159.
- (169) Chin, B. D.; Suh, M. C.; Kim, M. H.; Lee, S. T.; Kim, H. D.; Chung, H. K. *Applied Physics Letters* **2005**, *86*, 1–3.
- (170) Lee, J. Y. **2006**, 1103–1105.
- (171) Chwang, A. B.; Kwong, R. C.; Brown, J. J. *Applied Physics Letters* **2002**, *80*, 725–727.
- (172) Han, T. H.; Kim, Y. H.; Kim, M. H.; Song, W.; Lee, T. W. *ACS Applied Materials and Interfaces* **2016**, *8*, 6152–6163.
- (173) Lee, J. H.; Wu, C. I.; Liu, S. W.; Huang, C. A.; Chang, Y. *Applied Physics Letters* **2005**, *86*, 1–3.
- (174) Brown, C. T.; Kondakov, D. *Journal of the Society for Information Display* **2004**, *12*, 323–327.

- (175) Choong, V. E.; Shen, J.; Curless, J.; Shi, S.; Yang, J.; So, F. *Journal of Physics D: Applied Physics* **2000**, *33*, 760–763.
- (176) Liu, S. W.; Huang, C. A.; Lee, J. H.; Yang, K. H.; Chen, C. C.; Chang, Y. *Thin Solid Films* **2004**, *453-454*, 312–315.
- (177) Shen, Y.; Giebink, N. C. *Physical Review Applied* **2015**, *4*, 1–12.
- (178) Wang, Q.; Aziz, H. *ACS Applied Materials and Interfaces* **2013**, *5*, 8733–8739.
- (179) Aziz, H. *Science* **1999**, *283*, 1900–1902.
- (180) Kondakov, D.; Sandifer, J. R.; Tang, C. W.; Young, R. H. *Journal of Applied Physics* **2003**, *93*, 1108–1119.
- (181) Matsumura, M.; Ito, A.; Miyamae, Y. *Applied Physics Letters* **1999**, *75*, 1042–1044.
- (182) Kondakov, D.; Nichols, W. F.; Lenhart, W. C. *SID Symposium Digest of Technical Papers* **2007**, *38*, 1494–1496.
- (183) Kondakov, D. *Journal of Applied Physics* **2008**, *104*, DOI: 10.1063/1.3006890.
- (184) Kondakov, D.; Lenhart, W. C.; Nichols, W. F. *Journal of Applied Physics* **2007**, *101*, 024512.
- (185) Meerheim, R.; Walzer, K.; Pfeiffer, M.; Leo, K. *Applied Physics Letters* **2006**, *89*, 061111.
- (186) Fry, C.; Racine, B.; Vaufrey, D.; Doyeux, H.; Cini, S. *Applied Physics Letters* **2005**, *87*, 1–3.
- (187) Seifert, R.; Rabelo De Moraes, I.; Scholz, S.; Gather, M. C.; Lüssem, B.; Leo, K. *Organic Electronics: physics, materials, applications* **2013**, *14*, 115–123.
- (188) Moraes, I. R. D.; Scholz, S.; Lüssem, B.; Leo, K. *Organic Electronics* **2011**, *12*, 341–347.
- (189) De Moraes, I. R.; Scholz, S.; Lüssem, B.; Leo, K. *Applied Physics Letters* **2011**, *99*, 053302.
- (190) Sivasubramaniam, V.; Brodkorb, F.; Hanning, S.; Loebl, H. P.; Elsbergen, V.; Boerner, H.; Scherf, U.; Kreyenschmidt, M. *Central European Journal of Chemistry* **2009**, *7*, 836–845.
- (191) Peng, C.; Salehi, A.; Chen, Y.; Danz, M.; Liaptsis, G.; So, F. *ACS Applied Materials & Interfaces* **2017**, acsami.7b13537.
- (192) Wang, Q.; Aziz, H. *Organic Electronics* **2015**, *26*, 464–470.
- (193) Wang, Q.; Sun, B.; Aziz, H. *Advanced Functional Materials* **2014**, *24*, 2975–2985.
- (194) Yu, H.; Zhang, Y.; Cho, Y. J.; Aziz, H. *ACS Applied Materials & Interfaces* **2017**, acsami.7b01432.
- (195) Wang, Q.; Luo, Y.; Aziz, H. *Applied Physics Letters* **2010**, *97*, 1–4.

- (196) Tsutsui, T.; Yang, M.-j.; Yahiro, M.; Nakamura, K.; Watanabe, T.; Tsuji, T.; Fukuda, Y.; Wakimoto, T.; Miyaguti, S. *Jpn. J. Appl. Phys. Part 2*: **1999**, *38*, L1502–L1504.
- (197) Kalinowski, J.; Stampor, W.; Mężyk, J.; Cocchi, M.; Virgili, D.; Fattori, V.; Di Marco, P. *Physical Review B* **2002**, *66*, 235321.
- (198) Zhang, B.; Tan, G.; Lam, C. S.; Yao, B.; Ho, C. L.; Liu, L.; Xie, Z.; Wong, W. Y.; Ding, J.; Wang, L. *Advanced Materials* **2012**, *24*, 1873–1877.
- (199) Tsuboi, T.; Murayama, H.; Penzkofer, A. *Thin Solid Films* **2006**, *499*, 306–312.
- (200) Adachi, C.; Kwong, R.; Forrest, S. *Organic Electronics* **2001**, *2*, 37–43.
- (201) Kawamura, Y.; Brooks, J.; Brown, J. J.; Sasabe, H.; Adachi, C. *Physical Review Letters* **2006**, *96*, 11–14.
- (202) Kawamura, Y.; Goushi, K.; Brooks, J.; Brown, J. J.; Sasabe, H.; Adachi, C. *Applied Physics Letters* **2005**, *86*, 1–3.
- (203) Rihani, A.; Hassine, L.; Fave, J.-L.; Bouchriha, H. *Organic Electronics* **2006**, *7*, 1–7.
- (204) Hassine, L.; Bouchriha, H.; Roussel, J.; Fave, J. L. *Applied Physics Letters* **2001**, *78*, 1053–1055.
- (205) Hassine, L.; Bouchriha, H.; Roussel, J.; Fave, J. L. *Journal of Applied Physics* **2002**, *91*, 5170–5175.
- (206) Ruhstaller, B.; Beierlein, T.; Riel, H.; Karg, S.; Scott, J.; Riess, W. *IEEE Journal of Selected Topics in Quantum Electronics* **2003**, *9*, 723–731.
- (207) Ruhstaller, B.; Carter, S. a.; Barth, S.; Riel, H.; Riess, W.; Scott, J. C. *Journal of Applied Physics* **2001**, *89*, 4575–4586.
- (208) Pinner, D. J.; Friend, R. H.; Tessler, N. *Journal of Applied Physics* **1999**, *86*, 5116–5130.
- (209) Blom, P. W. M.; De Jong, M. J. M.; Vleggaar, J. J. M. *Applied Physics Letters* **1996**, *68*, 3308–3310.
- (210) Wei, B.; Furukawa, K.; Amagai, J.; Ichikawa, M.; Koyama, T.; Taniguchi, Y. *Semiconductor Science and Technology* **2004**, *19*, L56–L59.
- (211) Liu, F.; Ruden, P. P.; Campbell, I. H.; Smith, D. L. *Applied Physics Letters* **2012**, *101*, 023501.
- (212) Rothberg, L. J.; Lovinger, A. J. *Journal of Materials Research* **1996**, *11*, 3174–3187.
- (213) Staroske, W.; Pfeiffer, M.; Leo, K.; Hoffmann, M. *Physical Review Letters* **2007**, *98*, 197402.
- (214) Parshin, M. A.; Ollevier, J.; Van der Auweraer, M. In, ed. by Heremans, P. L.; Muccini, M.; Meulenkaamp, E. A., 2006; Vol. 6192, 61922A.

- (215) Ingram, G. L.; Zhao, Y.-B.; Lu, Z.-H. *Journal of Applied Physics* **2017**, *122*, DOI: 10.1063/1.5003011.
- (216) Wang, Q.; Aziz, H. *Organic Electronics* **2011**, *12*, 1571–1575.
- (217) Popovic, Z. D.; Aziz, H.; Hu, N. X.; Ioannidis, A.; Dos Anjos, P. N. M. *Journal of Applied Physics* **2001**, *89*, 4673–4675.
- (218) Winter, S.; Reineke, S.; Walzer, K.; Leo, K. *Proceedings of SPIE* **2008**, *6999*, 69992N–69992N–8.
- (219) Bangsund, J. S.; Hershey, K. W. **2018**.
- (220) Pettersson, L. A. A.; Roman, L. S.; Inganäs, O. *Journal of Applied Physics* **1999**, *86*, 487.
- (221) Han, C.; Zhu, L.; Li, J.; Zhao, F.; Zhang, Z.; Xu, H.; Deng, Z.; Ma, D.; Yan, P. *Advanced Materials* **2014**, *26*, 7070–7077.
- (222) Price, J. S.; Giebink, N. C. *Applied Physics Letters* **2015**, *106*, 263302.
- (223) Adachi, C.; Kwong, R. C.; Djurovich, P.; Adamovich, V.; Baldo, M.; Thompson, M. E.; Forrest, S. *Applied Physics Letters* **2001**, *79*, 2082.
- (224) Watanabe, S.; Ide, N.; Kido, J. *Japanese Journal of Applied Physics* **2007**, *46*, 1186–1188.
- (225) Adamovich, V. I.; Cordero, S. R.; Djurovich, P. I.; Tamayo, A.; Thompson, M. E.; D’Andrade, B. W.; Forrest, S. *Organic Electronics* **2003**, *4*, 77–87.
- (226) Xu, F.; Hershey, K. W.; Holmes, R. J.; Hoye, T. R. *Journal of the American Chemical Society* **2016**, *138*, 12739–12742.
- (227) Lee, J.; Chen, H.-F.; Batagoda, T.; Coburn, C.; Djurovich, P. I.; Thompson, M. E.; Forrest, S. *Nature Materials* **2015**, *15*, 92–98.
- (228) Yi, S.; Kim, J. H.; Cho, Y. J.; Lee, J.; Choi, T. S.; Cho, D. W.; Pac, C.; Han, W. S.; Son, H. J.; Kang, S. O. *Inorganic Chemistry* **2016**, *55*, 3324–3331.
- (229) Kim, S.-K.; Yang, B.; Ma, Y.; Lee, J.-H.; Park, J.-W. *Journal of Materials Chemistry* **2008**, *18*, 3376.
- (230) Schmidbauer, S.; Hohenleutner, A.; König, B. *Beilstein Journal of Organic Chemistry* **2013**, *9*, 2088–2096.
- (231) Wang, Q.; Williams, G.; Aziz, H. *Organic Electronics: physics, materials, applications* **2012**, *13*, 2075–2082.
- (232) Zhang, Y.; Aziz, H. *ACS Applied Materials and Interfaces* **2017**, *9*, 636–643.
- (233) Tang, X.; Bai, Q.; Shan, T.; Li, J.; Gao, Y.; Liu, F.; Liu, H.; Peng, Q.; Yang, B.; Li, F.; Lu, P. *Advanced Functional Materials* **2018**, *1705813*, 1705813.

- (234) Böhm, E.; Anemian, R.; Büsing, a.; Fortte, R.; Heil, H.; Kaiser, J.; Kröber, J.; Leu, S.; Mujica-Fernaund, T.; Parham, a.; Pflumm, C.; Voges, F. *Journal of Information Display* **2011**, *12*, 141–144.
- (235) Tokito, S.; Iijima, T.; Suzuri, Y.; Kita, H.; Tsuzuki, T.; Sato, F. *Applied Physics Letters* **2003**, *83*, 569–571.
- (236) Zhang, Y.; Forrest, S. *Physical Review B - Condensed Matter and Materials Physics* **2011**, *84*, 1–4.
- (237) Schueppel, R.; Uhrich, C.; Pfeiffer, M.; Leo, K.; Brier, E.; Reinold, E.; Baeuerle, P. *ChemPhysChem* **2007**, *8*, 1497–1503.

Appendices

Appendix A

List of Publications

- Hershey, K. W.; Holmes, R. J. *Journal of Applied Physics* **2016**, *120*, 195501
- Xu, F. et al. *Journal of the American Chemical Society* **2016**, *138*, 12739–12742
- Hershey, K. W. et al. *Applied Physics Letters* **2017**, *111*, 113301
- Bangsund, J. S. et al. *ACS Applied Materials & Interfaces* **2018**, acsami.7b16643
- Bangsund, J. S.; Hershey, K. W. **2018**