### Paul W M Blom

# List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

56 14,999 173 121 h-index g-index citations papers 16,377 6.73 8.5 175 avg, IF L-index ext. citations ext. papers

| #   | Paper  | IF               | Citations |
|-----|--|------------------|-----------|
| 173 | Role of Linker Functionality in Polymers Exhibiting Main-Chain Thermally Activated Delayed Fluorescence <i>Advanced Science</i> , <b>2022</b> , e2200056   | 13.6             | O         |
| 172 | Quantifying Exciton Annihilation Effects in Thermally Activated Delayed Fluorescence Materials. <i>Advanced Optical Materials</i> , <b>2022</b> , 10, 2101784  | 8.1              | 1         |
| 171 | Organic neuromorphic electronics for sensorimotor integration and learning in robotics. <i>Science Advances</i> , <b>2021</b> , 7, eabl5068  | 14.3             | 11        |
| 170 | Efficiency of Polymer Light-Emitting Diodes: A Perspective. Advanced Materials, 2021, e2108887   | 24               | 3         |
| 169 | Optical Outcoupling Efficiency of Organic Light-Emitting Diodes with a Broad Recombination Profile. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2001812   | 8.1              | 6         |
| 168 | Monitoring Reversible Tight Junction Modulation with a Current-Driven Organic Electrochemical Transistor. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2000940                                      | 6.8              | 6         |
| 167 | Optical Outcoupling Efficiency in Polymer Light-Emitting Diodes. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100155   | 6.4              | 2         |
| 166 | Origin of the Efficiency Roll-Off in Single-Layer Organic Light-Emitting Diodes Based on Thermally Activated Delayed Fluorescence. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2100249                  | 8.1              | 9         |
| 165 | Relation between Spherulitic Growth, Molecular Organization, and Charge Carrier Transport in Meniscus-Guided Coated Organic Semiconducting Films. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 210039 | <del>7</del> 6.4 | 3         |
| 164 | Current-Driven Organic Electrochemical Transistors for Monitoring Cell Layer Integrity with Enhanced Sensitivity. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2100845                              | 10.1             | 10        |
| 163 | Molecular Origin of Balanced Bipolar Transport in Neat Layers of the Emitter CzDBA. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2000120  | 6.8              | 6         |
| 162 | Molecular library of OLED host materials Evaluating the multiscale simulation workflow. <i>Chemical Physics Reviews</i> , <b>2021</b> , 2, 031304  | 4.4              | 7         |
| 161 | De Novo Simulation of Charge Transport through Organic Single-Carrier Devices. <i>Journal of Chemical Theory and Computation</i> , <b>2021</b> , 17, 6416-6422   | 6.4              | 2         |
| 160 | Self-Aligned Bilayers for Flexible Free-Standing Organic Field-Effect Transistors. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2021</b> ,  | 9.5              | 2         |
| 159 | Virtual Screening of TADF Emitters for Single-Layer OLEDs Frontiers in Chemistry, <b>2021</b> , 9, 800027  | 5                | 3         |
| 158 | Polymer Electronics: To Be or Not to Be?. Advanced Materials Technologies, 2020, 5, 2000144  | 6.8              | 18        |
| 157 | Exciton Quenching due to Hole Trap Formation in Aged Polymer Light-Emitting Diodes. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1700643  | 6.4              | 4         |

## (2019-2020)

| 156 | Trap-Assisted Triplet Emission in Ladder-Polymer-Based Light-Emitting Diodes. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000082  | 6.4  | 2  |  |
|-----|--|------|----|--|
| 155 | Green and stable processing of organic light-emitting diodes from aqueous nanodispersions.  Journal of Materials Chemistry C, <b>2020</b> , 8, 6528-6535                                       | 7.1  | 7  |  |
| 154 | A PMMA-based heterogeneous photocatalyst for visible light-promoted [4 + 2] cycloaddition. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 2092-2099                               | 5.5  | 8  |  |
| 153 | Effects of fluorine substitution in quinoidal oligothiophenes for use as organic semiconductors.  Journal of Materials Chemistry C, 2020, 8, 3580-3588   | 7.1  | 10 |  |
| 152 | Solution-Processable 2D Materials Applied in Light-Emitting Diodes and Solar Cells. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 1900972  | 6.8  | 25 |  |
| 151 | Key role of the meniscus shape in crystallization of organic semiconductors during meniscus-guided coating. <i>Materials Horizons</i> , <b>2020</b> , 7, 1631-1640                             | 14.4 | 16 |  |
| 150 | Polymerperovskite blend light-emitting diodes using a self-compensated heavily doped polymeric anode. <i>APL Materials</i> , <b>2020</b> , 8, 021101   | 5.7  | 7  |  |
| 149 | Role of Singlet and Triplet Excitons on the Electrical Stability of Polymer Light-Emitting Diodes. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000367                             | 6.4  | 1  |  |
| 148 | Space-charge-limited electron and hole currents in hybrid organic-inorganic perovskites. <i>Nature Communications</i> , <b>2020</b> , 11, 4023   | 17.4 | 60 |  |
| 147 | Multiscale real time and high sensitivity ion detection with complementary organic electrochemical transistors amplifier. <i>Nature Communications</i> , <b>2020</b> , 11, 3743                | 17.4 | 57 |  |
| 146 | A window to trap-free charge transport in organic semiconducting thin films. <i>Nature Materials</i> , <b>2019</b> , 18, 1182-1186   | 27   | 82 |  |
| 145 | Hole-transport comparison between solution-processed and vacuum-deposited organic semiconductors. <i>APL Materials</i> , <b>2019</b> , 7, 011105   | 5.7  | 1  |  |
| 144 | Effect of DMSO Solvent Treatments on the Performance of PEDOT:PSS Based Organic Electrochemical Transistors. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800804                   | 6.4  | 23 |  |
| 143 | Solution-Processed Organic Transistors with Excellent Electrical Stability under Ambient Conditions. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900295                           | 6.4  | 9  |  |
| 142 | Suppression of electron trapping by quantum dot emitters using a grafted polystyrene shell. <i>Materials Horizons</i> , <b>2019</b> , 6, 2024-2031   | 14.4 | 6  |  |
| 141 | Functional Connectivity of Organic Neuromorphic Devices by Global Voltage Oscillations. <i>Advanced Intelligent Systems</i> , <b>2019</b> , 1, 1900013   | 6    | 19 |  |
| 140 | Quantification of hole-trap concentration in degraded polymer light-emitting diodes using impedance spectroscopy. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 163301                   | 3.4  | 6  |  |
| 139 | Efficiency enhancement of polyfluorene: Polystyrene blend light-emitting diodes by simultaneous trap dilution and Ephase formation. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 093301 | 3.4  | 10 |  |

| 138 | Electron Trapping in Conjugated Polymers. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 6380-6386   | 9.6  | 42  |
|-----|---|------|-----|
| 137 | Monitoring of Cell Layer Integrity with a Current-Driven Organic Electrochemical Transistor. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1900128   | 10.1 | 17  |
| 136 | Efficient and stable single-layer organic light-emitting diodes based on thermally activated delayed fluorescence. <i>Nature Photonics</i> , <b>2019</b> , 13, 765-769                                | 33.9 | 80  |
| 135 | Probing the Impedance of a Biological Tissue with PEDOT:PSS-Coated Metal Electrodes: Effect of Electrode Size on Sensing Efficiency. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1901215 | 10.1 | 20  |
| 134 | Improved Hole Injection into Perovskite Light-Emitting Diodes Using A Black Phosphorus Interlayer. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800687                                    | 6.4  | 14  |
| 133 | Universal strategy for Ohmic hole injection into organic semiconductors with high ionization energies. <i>Nature Materials</i> , <b>2018</b> , 17, 329-334  | 27   | 119 |
| 132 | A Delamination Strategy for Thinly Layered Defect-Free High-Mobility Black Phosphorus Flakes. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 4677-4681                          | 16.4 | 68  |
| 131 | High-sensitivity ion detection at low voltages with current-driven organic electrochemical transistors. <i>Nature Communications</i> , <b>2018</b> , 9, 1441  | 17.4 | 67  |
| 130 | Hole trap formation in polymer light-emitting diodes under current stress. <i>Nature Materials</i> , <b>2018</b> , 17, 557-562  | 27   | 50  |
| 129 | Hybrid Silver Nanowire and Graphene-Based Solution-Processed Transparent Electrode for Organic Optoelectronics. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1706010                      | 15.6 | 183 |
| 128 | Integrated circuits based on conjugated polymer monolayer. <i>Nature Communications</i> , <b>2018</b> , 9, 451  | 17.4 | 50  |
| 127 | Efficiency of solution-processed multilayer polymer light-emitting diodes using charge blocking layers. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 024504                                 | 2.5  | 4   |
| 126 | Origin of Negative Capacitance in Bipolar Organic Diodes. <i>Physical Review Letters</i> , <b>2018</b> , 120, 116602  | 7.4  | 26  |
| 125 | Fluoride-Free Synthesis of Two-Dimensional Titanium Carbide (MXene) Using A Binary Aqueous System. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 15491-15495                   | 16.4 | 195 |
| 124 | Crystallization Control of Organic Semiconductors during Meniscus-Guided Coating by Blending with Polymer Binder. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1805594                    | 15.6 | 27  |
| 123 | Temperature dependence of the photo- and electroluminescence of poly(p-phenylene vinylene) based polymers. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 10569-10579                     | 7.1  | 13  |
| 122 | Rigorous Characterization and Predictive Modeling of Hole Transport in Amorphous Organic Semiconductors. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1800366                              | 6.4  | 20  |
| 121 | Oligothiophene quinoids containing a benzo[c]thiophene unit for the stabilization of the quinoidal electronic structure. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 7493-7500         | 7.1  | 26  |

#### (2015-2017)

| 120 | Influence of Energetic Disorder on Exciton Lifetime and Photoluminescence Efficiency in Conjugated Polymers. <i>Journal of Physical Chemistry B</i> , <b>2017</b> , 121, 1405-1412 | 3.4            | 16  |
|-----|--|----------------|-----|
| 119 | Solution-processed multilayer polymer light-emitting diode without intermixing. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 023302   | 3.4            | 12  |
| 118 | Charge carrier trapping controlled by polymer blend phase dynamics. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 3042-3048   | 7.1            | 20  |
| 117 | Electron and hole transport in the organic small molecule ENPD. Applied Physics Letters, 2017, 110, 0733   | 3 <b>0</b> ;14 | 20  |
| 116 | Open-circuit voltage loss in annealed P3HT:perylene diimide bulk heterojunction solar cells. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 163301                            | 3.4            | 9   |
| 115 | Quantifying the Kinetics of the Gilch Polymerization toward Alkoxy-Substituted Poly(p-phenylene vinylene). <i>Macromolecules</i> , <b>2017</b> , 50, 4952-4961                     | 5.5            | 15  |
| 114 | Solubility and Charge Transport in Blends of Poly-dialkoxy-p-phenylene Vinylene and UV-Cross-Linkable Matrices. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1600519    | 6.4            | 5   |
| 113 | Absence of ferroelectricity in methylammonium lead iodide perovskite. <i>AIP Advances</i> , <b>2017</b> , 7, 095110  | 1.5            | 22  |
| 112 | Visualization of trap dilution in polyfluorene based light-emitting diodes. AIP Advances, 2017, 7, 075209  | 9 1.5          | 9   |
| 111 | Transient electroluminescence on pristine and degraded phosphorescent blue OLEDs. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 185502                                    | 2.5            | 7   |
| 110 | Solution-Processable High-Quality Graphene for Organic Solar Cells. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2017</b> , 9, 25412-25417                              | 9.5            | 40  |
| 109 | Modeling of Electrical Characteristics of Degraded Polymer Light-Emitting Diodes. <i>Advanced Electronic Materials</i> , <b>2016</b> , 2, 1600103                                  | 6.4            | 23  |
| 108 | Filling the Green Gap of a Megadalton Photosystem I Complex by Conjugation of Organic Dyes. <i>Bioconjugate Chemistry</i> , <b>2016</b> , 27, 36-41                                | 6.3            | 10  |
| 107 | Efficient Blue Polymer Light-Emitting Diodes with Electron-Dominated Transport Due to Trap Dilution. <i>Advanced Electronic Materials</i> , <b>2016</b> , 2, 1500406               | 6.4            | 11  |
| 106 | Effect of non-ohmic contacts on the light-intensity dependence of the open-circuit voltage in organic solar cells. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 053302      | 3.4            | 26  |
| 105 | Elimination of charge carrier trapping in dilutedBemiconductors. <i>Nature Materials</i> , <b>2016</b> , 15, 628-33  | 27             | 103 |
| 104 | Switching dynamics in ferroelectric P(VDF-TrFE) thin films. <i>Physical Review B</i> , <b>2015</b> , 92,   | 3.3            | 37  |
| 103 | Exciton diffusion in organic semiconductors. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1867-1888  | 35.4           | 497 |

| 102 | 25th anniversary article: charge transport and recombination in polymer light-emitting diodes. <i>Advanced Materials</i> , <b>2014</b> , 26, 512-31   | 24    | 158 |
|-----|---|-------|-----|
| 101 | Trap-limited exciton diffusion in organic semiconductors. <i>Advanced Materials</i> , <b>2014</b> , 26, 1912-7  | 24    | 111 |
| 100 | Effect of arylamine hole-transport units on the performance of blue polyspirobifulorene light-emitting diodes. <i>Physical Review B</i> , <b>2014</b> , 90,   | 3.3   | 3   |
| 99  | Diffusion-driven currents in organic-semiconductor diodes. NPG Asia Materials, 2014, 6, e110-e110   | 10.3  | 33  |
| 98  | Exciton quenching at PEDOT:PSS anode in polymer blue-light-emitting diodes. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 224508   | 2.5   | 18  |
| 97  | Spectroscopic evidence for trap-dominated magnetic field effects in organic semiconductors. <i>Physical Review B</i> , <b>2014</b> , 90,  | 3.3   | 15  |
| 96  | Diffusion-limited current in organic metal-insulator-metal diodes. <i>Physical Review Letters</i> , <b>2013</b> , 111, 186801   | 7.4   | 76  |
| 95  | Quantifying Bimolecular Recombination in Organic Solar Cells in Steady State. <i>Advanced Energy Materials</i> , <b>2013</b> , 3, 1130-1134   | 21.8  | 56  |
| 94  | Simultaneous Open-Circuit Voltage Enhancement and Short-Circuit Current Loss in Polymer: Fullerene Solar Cells Correlated by Reduced Quantum Efficiency for Photoinduced Electron Transfer. <i>Advanced Energy Materials</i> , <b>2013</b> , 3, 85-94 | 21.8  | 72  |
| 93  | Efficient electron injection from solution-processed cesium stearate interlayers in organic light-emitting diodes. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 053301   | 3.4   | 15  |
| 92  | Asymmetric electron and hole transport in a high-mobility n-type conjugated polymer. <i>Physical Review B</i> , <b>2012</b> , 86,   | 3.3   | 58  |
| 91  | Exciton diffusion length in narrow bandgap polymers. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 6960  | 35.4  | 185 |
| 90  | Effect of thermal annealing on exciton diffusion in a diketopyrrolopyrrole derivative. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 14196-201   | 3.6   | 44  |
| 89  | Physics of organic ferroelectric field-effect transistors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2012</b> , 50, 47-54   | 2.6   | 38  |
| 88  | Carrier-density dependence of the hole mobility in doped and undoped regioregular poly(3-hexylthiophene). <i>Physica Status Solidi (B): Basic Research</i> , <b>2012</b> , 249, 138-141   | 1.3   | 12  |
| 87  | Unification of trap-limited electron transport in semiconducting polymers. <i>Nature Materials</i> , <b>2012</b> , 11, 882-7  | 27    | 348 |
| 86  | Influence of the isomeric composition of the acceptor on the performance of organic bulk heterojunction P3HT:bis-PCBM solar cells. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 15412  |       | 25  |
| 85  | Device Physics of White Polymer Light-Emitting Diodes. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 2040-2  | 20475 | 47  |

#### (2011-2012)

| 84 | Identifying the Nature of Charge Recombination in Organic Solar Cells from Charge-Transfer State Electroluminescence. <i>Advanced Energy Materials</i> , <b>2012</b> , 2, 1232-1237                                      | 21.8  | 85  |
|----|--|-------|-----|
| 83 | Formation of inversion layers in organic field-effect transistors. <i>Physical Review B</i> , <b>2012</b> , 85,  | 3.3   | 17  |
| 82 | Charge transport in dual-gate organic field-effect transistors. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 02330  | 8 3.4 | 24  |
| 81 | Beyond the Nernst-limit with dual-gate ZnO ion-sensitive field-effect transistors. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 043502   | 3.4   | 86  |
| 80 | Electron traps in semiconducting polymers: Exponential versus Gaussian trap distribution. <i>Physical Review B</i> , <b>2011</b> , 83,   | 3.3   | 88  |
| 79 | Electron and hole transport in poly(fluorene-benzothiadiazole). <i>Applied Physics Letters</i> , <b>2011</b> , 98, 14350   | 043.4 | 70  |
| 78 | Origin of the efficiency enhancement in ferroelectric functionalized organic solar cells. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 183301  | 3.4   | 41  |
| 77 | Validity of the Einstein relation in disordered organic semiconductors. <i>Physical Review Letters</i> , <b>2011</b> , 107, 066605   | 7.4   | 104 |
| 76 | Trap-assisted recombination in disordered organic semiconductors. <i>Physical Review Letters</i> , <b>2011</b> , 107, 256805   | 7.4   | 215 |
| 75 | Trap-assisted and Langevin-type recombination in organic light-emitting diodes. <i>Physical Review B</i> , <b>2011</b> , 83,   | 3.3   | 115 |
| 74 | Origin of the dark-current ideality factor in polymer:fullerene bulk heterojunction solar cells. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 153506   | 3.4   | 231 |
| 73 | Polymer light-emitting diodes with doped hole-transport layers. <i>Physica Status Solidi (A)</i> Applications and Materials Science, <b>2011</b> , 208, 2482-2487  | 1.6   | 1   |
| 72 | Role of balanced charge carrier transport in low band gap polymer:Fullerene bulk heterojunction solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2011</b> , 49, 708-711                      | 2.6   | 50  |
| 71 | Effect of n-type doping on the hole transport in poly(p-phenylene vinylene). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2011</b> , 49, 1745-1749  | 2.6   | 6   |
| 70 | Charge Transport and Recombination in Polyspirobifluorene Blue Light-Emitting Diodes. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 1505-1510   | 15.6  | 21  |
| 69 | The Effect of Ketone Defects on the Charge Transport and Charge Recombination in Polyfluorenes. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 4502-4509   | 15.6  | 36  |
| 68 | Sensitive triplet exciton detection in polyfluorene using Pd-coordinated porphyrin. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 14453-6   | 3.6   | 9   |
| 67 | Quantitative analysis of the guest-concentration dependence of the mobility in a disordered fluorene-arylamine host-guest system in the guest-to-guest regime. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 203303 | 3.4   | 8   |

| 66 | N-type doping of poly(p-phenylene vinylene) with air-stable dopants. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 173302   | 3.4  | 23  |
|----|--|------|-----|
| 65 | Determination of the trap-assisted recombination strength in polymer light emitting diodes. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 093301  | 3.4  | 49  |
| 64 | Optical detection of deep electron traps in poly(p-phenylene vinylene) light-emitting diodes. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 183305  | 3.4  | 14  |
| 63 | Hysteresis-free electron currents in poly(p-phenylene vinylene) derivatives. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 124504   | 2.5  | 21  |
| 62 | Electrical characteristics of conjugated self-assembled monolayers in large-area molecular junctions. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 173302  | 3.4  | 27  |
| 61 | Doping kinetics of organic semiconductors investigated by field-effect transistors. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 043302  | 3.4  | 19  |
| 60 | Organic field-effect transistor-based biosensors functionalized with protein receptors. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 124501  | 2.5  | 23  |
| 59 | Monolayer dual gate transistors with a single charge transport layer. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 143304  | 3.4  | 16  |
| 58 | A deeper Insight into the Dithiocarbamate Precursor Route: Synthesis of Soluble Poly(thienylene vinylene) Derivatives for Photovoltaic Applications. <i>Macromolecules</i> , <b>2010</b> , 43, 10231-10240 | 5.5  | 20  |
| 57 | Substituted Polyfluorene-Based Hole Transport Layer with Tunable Solubility. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 10559-10564   | 3.8  | 6   |
| 56 | Trap-free electron transport in poly(p-phenylene vinylene) by deactivation of traps with n-type doping. <i>Physical Review B</i> , <b>2010</b> , 81,   | 3.3  | 103 |
| 55 | Enhancement of the hole injection into regioregular poly(3-hexylthiophene) by molecular doping. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 083303  | 3.4  | 41  |
| 54 | Crossbar memory array of organic bistable rectifying diodes for nonvolatile data storage. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 193308  | 3.4  | 56  |
| 53 | Dual-Gate Organic Field-Effect Transistors as Potentiometric Sensors in Aqueous Solution. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 898-905   | 15.6 | 122 |
| 52 | Controllable Molecular Doping and Charge Transport in Solution-Processed Polymer Semiconducting Layers. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 1901-1905                                 | 15.6 | 121 |
| 51 | Single-Layer Pentacene Field-Effect Transistors Using Electrodes Modified With Self-assembled Monolayers. <i>Advanced Materials</i> , <b>2009</b> , 21, 4109-4114  | 24   | 92  |
| 50 | Microcontact printing of self-assembled monolayers to pattern the light-emission of polymeric light-emitting diodes. <i>Applied Physics A: Materials Science and Processing</i> , <b>2009</b> , 95, 1-5    | 2.6  | 8   |
| 49 | Bottom-up organic integrated circuits. <i>Nature</i> , <b>2008</b> , 455, 956-959  | 50.4 | 331 |

#### (2005-2008)

| 48 | Temperature dependence of exciton diffusion in conjugated polymers. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 11601-4   | 3.4 | 137 |
|----|---|-----|-----|
| 47 | Combined optical and electrical modeling of polymer:fullerene bulk heterojunction solar cells.<br>Journal of Applied Physics, <b>2008</b> , 103, 084502                                     | 2.5 | 87  |
| 46 | Diffusion-enhanced hole transport in thin polymer light-emitting diodes. <i>Physical Review B</i> , <b>2008</b> , 77,   | 3.3 | 55  |
| 45 | Charge dissociation in polymer:fullerene bulk heterojunction solar cells with enhanced permittivity. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 114517                          | 2.5 | 40  |
| 44 | Increasing the noise margin in organic circuits using dual gate field-effect transistors. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 143304   | 3.4 | 56  |
| 43 | Hole transport in blue and white emitting polymers. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 113711   | 2.5 | 15  |
| 42 | Fullerene Bisadducts for Enhanced Open-Circuit Voltages and Efficiencies in Polymer Solar Cells. <i>Advanced Materials</i> , <b>2008</b> , 20, 2116-2119                                    | 24  | 546 |
| 41 | Manipulation of charge carrier injection into organic field-effect transistors by self-assembled monolayers of alkanethiols. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 1947 |     | 97  |
| 40 | Unified description of potential profiles and electrical transport in unipolar and ambipolar organic field-effect transistors. <i>Physical Review B</i> , <b>2007</b> , 76,                 | 3.3 | 30  |
| 39 | Optimum charge carrier mobility in organic solar cells. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 133504   | 3.4 | 186 |
| 38 | Solution-processed organic tandem solar cells with embedded optical spacers. <i>Journal of Applied Physics</i> , <b>2007</b> , 102, 074506  | 2.5 | 71  |
| 37 | Trap-limited electron transport in disordered semiconducting polymers. <i>Physical Review B</i> , <b>2007</b> , 75,   | 3.3 | 111 |
| 36 | Charge Carrier Density Dependence of the Hole Mobility in Poly(p-phenylene vinylene) <b>2006</b> , 305-318  |     |     |
| 35 | Ambipolar charge transport in organic field-effect transistors. <i>Physical Review B</i> , <b>2006</b> , 73,  | 3.3 | 152 |
| 34 | Device model for the operation of polymer/fullerene bulk heterojunction solar cells. <i>Physical Review B</i> , <b>2005</b> , 72,   | 3.3 | 752 |
| 33 | Unified description of charge-carrier mobilities in disordered semiconducting polymers. <i>Physical Review Letters</i> , <b>2005</b> , 94, 206601   | 7.4 | 755 |
| 32 | Simultaneous enhancement of charge transport and exciton diffusion in poly(p-phenylene vinylene) derivatives. <i>Physical Review B</i> , <b>2005</b> , 72,                                  | 3.3 | 171 |
| 31 | Light intensity dependence of open-circuit voltage of polymer:fullerene solar cells. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 123509  | 3.4 | 914 |

| 30 | High-performance solution-processed polymer ferroelectric field-effect transistors. <i>Nature Materials</i> , <b>2005</b> , 4, 243-248                                 | 27     | 809 |
|----|--|--------|-----|
| 29 | Luminescent Poly(p-phenylenevinylene) Hole-Transport Layers with Adjustable Solubility. <i>Advanced Functional Materials</i> , <b>2005</b> , 15, 2011-2015             | 15.6   | 20  |
| 28 | All-polymer ferroelectric transistors. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 092903   | 3.4    | 113 |
| 27 | Dynamics of exciton diffusion in poly(p-phenylene vinylene)/fullerene heterostructures. <i>Physical Review B</i> , <b>2005</b> , 72,                                   | 3.3    | 79  |
| 26 | Migration-assisted energy transfer at conjugated polymer/metal interfaces. <i>Physical Review B</i> , <b>2005</b> , 72,  | 3.3    | 46  |
| 25 | Charge injection across a polymeric heterojunction. <i>Physical Review B</i> , <b>2005</b> , 71,   | 3.3    | 29  |
| 24 | Exciton quenching in poly(phenylene vinylene) polymer light-emitting diodes. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 233511                                 | 3.4    | 37  |
| 23 | Integrated Complementary-Like Circuits Based on Organic Ambipolar Transistors. <i>Materials Research Society Symposia Proceedings</i> , <b>2005</b> , 871, 1           |        | 5   |
| 22 | Tuning of Metal Work Functions with Self-Assembled Monolayers. <i>Materials Research Society Symposia Proceedings</i> , <b>2005</b> , 871, 1                           |        | 4   |
| 21 | Organic complementary-like inverters employing methanofullerene-based ambipolar field-effect transistors. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 4205-4207 | 3.4    | 167 |
| 20 | Origin of the enhanced space-charge-limited current in poly(p-phenylene vinylene). <i>Physical Review B</i> , <b>2004</b> , 70,  | 3.3    | 146 |
| 19 | Cathode dependence of the open-circuit voltage of polymer:fullerene bulk heterojunction solar cells. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 6849-6854   | 2.5    | 697 |
| 18 | Unification of the hole transport in polymeric field-effect transistors and light-emitting diodes. <i>Physical Review Letters</i> , <b>2003</b> , 91, 216601           | 7.4    | 630 |
| 17 | Charge transport in disordered organic field-effect transistors. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 725, 1                         |        | 1   |
| 16 | Switch-on voltage in disordered organic field-effect transistors. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 3838-   | -38440 | 173 |
| 15 | Performance of Injection-Limited Polymer Light-Emitting Diodes. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 725, 1                          |        |     |
| 14 | Admittance Spectroscopy on Polymer Light-Emitting Diodes. <i>Materials Research Society Symposia Proceedings</i> , <b>2001</b> , 665, 1                                |        |     |
| 13 | Simultaneous measurement of electron and hole mobilities in polymer light-emitting diodes. <i>Applied Physics Letters</i> , <b>2000</b> , 77, 1852                     | 3.4    | 162 |

#### LIST OF PUBLICATIONS

| 12 | Dispersive Hole Transport in Poly( p-Phenylene Vinylene). <i>Physical Review Letters</i> , <b>1998</b> , 80, 3819-3822   | 7.4             | 149          |
|----|--|-----------------|--------------|
| 11 | Temperature dependent electron-hole recombination in polymer light-emitting diodes. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 930-932   | 3.4             | 160          |
| 10 | Electric-field and temperature dependence of the hole mobility in poly(p-phenylene vinylene). <i>Physical Review B</i> , <b>1997</b> , 55, R656-R659                                   | 3.3             | 707          |
| 9  | Electron and hole transport in poly(p-phenylene vinylene) devices. <i>Applied Physics Letters</i> , <b>1996</b> , 68, 330  | 08 <u>.3</u> 31 | <b>0</b> 698 |
| 8  | Numerical Device Model for Organic Light-Emitting Diodes Based on Thermally Activated Delayed Fluorescence. <i>Advanced Electronic Materials</i> ,2101261                              | 6.4             | О            |
| 7  | Organic Semiconductor/Insulator Blends for Elastic Field-Effect Transistors and Sensors. <i>Advanced Functional Materials</i> ,2105456   | 15.6            | 14           |
| 6  | Optimized Charge Transport in Molecular Semiconductors by Control of Fluid Dynamics and Crystallization in Meniscus-Guided Coating. <i>Advanced Functional Materials</i> ,2107976      | 15.6            | 3            |
| 5  | Selective Ion Detection with Integrated Organic Electrochemical Transistors. <i>Advanced Materials Technologies</i> ,2100591   | 6.8             | 5            |
| 4  | Efficient Gating of Organic Electrochemical Transistors with In-Plane Gate Electrodes. <i>Advanced Materials Technologies</i> ,2100732   | 6.8             | 5            |
| 3  | Universal Electroluminescence at Voltages below the Energy Gap in Organic Light-Emitting Diodes. <i>Advanced Optical Materials</i> ,2101149  | 8.1             | 2            |
| 2  | Electron Trap Dynamics in Polymer Light-Emitting Diodes. Advanced Functional Materials,2106185   | 15.6            | 2            |
| 1  | High-Performance Bioelectronic Circuits Integrated on Biodegradable and Compostable Substrates with Fully Printed Mask-Less Organic Electrochemical Transistors. <i>Small</i> ,2108077 | 11              | 3            |