

# Liang Yan

## List of Publications by Year in descending order

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55  
papers

2,724  
citations

257450

24  
h-index

182427

51  
g-index

56  
all docs

56  
docs citations

56  
times ranked

4174  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Magnetic Field Effects in Organic Semiconducting Materials and Devices. <i>Advanced Materials</i> , 2009, 21, 1500-1516.  | 21.0 | 327       |
| 2  | Mobility-Controlled Performance of Thick Solar Cells Based on Fluorinated Copolymers. <i>Journal of the American Chemical Society</i> , 2014, 136, 15566-15576.   | 13.7 | 249       |
| 3  | Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. <i>Nature Communications</i> , 2019, 10, 1276.                           | 12.8 | 222       |
| 4  | Controlling Molecular Weight of a High Efficiency Donor-Acceptor Conjugated Polymer and Understanding Its Significant Impact on Photovoltaic Properties. <i>Advanced Materials</i> , 2014, 26, 4456-4462. | 21.0 | 190       |
| 5  | Organic Solar Cells beyond One Pair of Donor-Acceptor: Ternary Blends and More. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1802-1810.  | 4.6  | 186       |
| 6  | Solution-processed copper-nickel nanowire anodes for organic solar cells. <i>Nanoscale</i> , 2014, 6, 5980.   | 5.6  | 170       |
| 7  | Two-Dimensional Organic-Inorganic Hybrid Perovskites: A New Platform for Optoelectronic Applications. <i>Advanced Materials</i> , 2018, 30, e1802041.   | 21.0 | 138       |
| 8  | Panchromatic Sequentially Cast Ternary Polymer Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1604603.  | 21.0 | 87        |
| 9  | Tuning Fluorinated Benzotriazole Polymers through Alkylthio Substitution and Selenophene Incorporation for Bulk Heterojunction Solar Cells. <i>Macromolecules</i> , 2014, 47, 2289-2295.                  | 4.8  | 75        |
| 10 | Energy transfer mechanisms in layered 2D perovskites. <i>Journal of Chemical Physics</i> , 2018, 148, 134706.   | 3.0  | 70        |
| 11 | A General Approach toward Electron Deficient Triazole Units to Construct Conjugated Polymers for Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 6470-6476.  | 6.7  | 69        |
| 12 | General Post-annealing Method Enables High-Efficiency Two-Dimensional Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 33187-33197.                                      | 8.0  | 66        |
| 13 | Aryl-Perfluoroaryl Interaction in Two-Dimensional Organic-Inorganic Hybrid Perovskites Boosts Stability and Photovoltaic Efficiency. , 2019, 1, 171-176.  |      | 63        |
| 14 | Triplet-charge annihilation versus triplet-triplet annihilation in organic semiconductors. <i>Journal of Materials Chemistry C</i> , 2013, 1, 1330-1336.  | 5.5  | 59        |
| 15 | Fluorinated Thiophene Units Improve Photovoltaic Device Performance of Donor-Acceptor Copolymers. <i>Chemistry of Materials</i> , 2017, 29, 5990-6002.  | 6.7  | 57        |
| 16 | Alkyl-Aryl Cation Mixing in Chiral 2D Perovskites. <i>Journal of the American Chemical Society</i> , 2021, 143, 18114-18120.  | 13.7 | 57        |
| 17 | High Seebeck Effects from Hybrid Metal/Polymer/Metal Thin-Film Devices. <i>Advanced Materials</i> , 2011, 23, 4120-4124.  | 21.0 | 48        |
| 18 | Comparing non-fullerene acceptors with fullerene in polymer solar cells: a case study with FTAZ and PyCNTAZ. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4886-4893.                                | 10.3 | 44        |

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|----|---|------|-----------|
| 19 | The Structural Origin of Chiroptical Properties in Perovskite Nanocrystals with Chiral Organic Ligands. <i>Advanced Functional Materials</i> , 2022, 32, .  | 14.9 | 43        |
| 20 | Green-Solvent-Processed Conjugated Polymers for Organic Solar Cells: The Impact of Oligoethylene Glycol Side Chains. <i>ACS Applied Polymer Materials</i> , 2019, 1, 804-814.                                 | 4.4  | 39        |
| 21 | Giant Magnetic Field Effects on Electroluminescence in Electrochemical Cells. <i>Advanced Materials</i> , 2011, 23, 2216-2220.  | 21.0 | 29        |
| 22 | Roles of Interfacial Modifiers in Hybrid Solar Cells: Inorganic/Polymer Bilayer vs Inorganic/Polymer:Fullerene Bulk Heterojunction. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 803-810.         | 8.0  | 29        |
| 23 | A molecular tandem cell for efficient solar water splitting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 13256-13260.                                 | 7.1  | 28        |
| 24 | Donor polymer fluorination doubles the efficiency in non-fullerene organic photovoltaics. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22536-22541.   | 10.3 | 27        |
| 25 | Formation of supramolecular hydrogels with controlled microstructures and stability via molecular assembling in a two-component system. <i>Journal of Colloid and Interface Science</i> , 2007, 307, 280-287. | 9.4  | 25        |
| 26 | Magneto-Dielectric Effects Induced by Optically-Generated Intermolecular Charge-Transfer States in Organic Semiconducting Materials. <i>Scientific Reports</i> , 2013, 3, 2812.                               | 3.3  | 25        |
| 27 | Real Function of Semiconducting Polymer in GaAs/Polymer Planar Heterojunction Solar Cells. <i>ACS Nano</i> , 2013, 7, 6619-6626.  | 14.6 | 24        |
| 28 | Coherent control of asymmetric spintronic terahertz emission from two-dimensional hybrid metal halides. <i>Nature Communications</i> , 2021, 12, 5744.  | 12.8 | 24        |
| 29 | Distinguishing Energy- and Charge-Transfer Processes in Layered Perovskite Quantum Wells with Two-Dimensional Action Spectroscopies. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4570-4577.      | 4.6  | 19        |
| 30 | Effect of Cyano Substitution on Conjugated Polymers for Bulk Heterojunction Solar Cells. <i>ACS Applied Polymer Materials</i> , 2019, 1, 3313-3322.   | 4.4  | 17        |
| 31 | Charge Photogeneration in Organic Photovoltaics: Role of Hot versus Cold Charge Transfer Excitons. <i>Advanced Energy Materials</i> , 2016, 6, 1301032.   | 19.5 | 16        |
| 32 | Tuning of spin-orbit coupling in metal-free conjugated polymers by structural conformation. <i>Physical Review Materials</i> , 2020, 4, .   | 2.4  | 16        |
| 33 | Morphological Effects on the Small-Molecule-Based Solution-Processed Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 15767-15773.   | 8.0  | 15        |
| 34 | Enhancing Photovoltaic Performance of Aromatic Ammonium-Based Two-Dimensional Organic-Inorganic Hybrid Perovskites via Tuning CH <sub>3</sub> ⋯I Interaction. <i>Solar Rrl</i> , 2020, 4, 1900374.            | 5.8  | 15        |
| 35 | Utilizing Difluorinated Thiophene Units To Improve the Performance of Polymer Solar Cells. <i>Macromolecules</i> , 2019, 52, 6523-6532.   | 4.8  | 14        |
| 36 | Functionalization of Benzotriazole-Based Conjugated Polymers for Solar Cells: Heteroatom vs Substituents. <i>ACS Applied Polymer Materials</i> , 2021, 3, 30-41.  | 4.4  | 14        |

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|----|--|------|-----------|
| 37 | Changing inter-molecular spin-orbital coupling for generating magnetic field effects in phosphorescent organic semiconductors. <i>Applied Physics Letters</i> , 2012, 100, 013301.   | 3.3  | 12        |
| 38 | Magnetocurrent of Charge-Polarizable C <sub>60</sub> -Diphenylaminofluorene Monoadduct-Derived Magnetic Nanocomposites. <i>Journal of the American Chemical Society</i> , 2012, 134, 3549-3554.  | 13.7 | 12        |
| 39 | Orientation effect on GaAs/ultrathin polymer/PEDOT:PSS hybrid solar cell. <i>Organic Electronics</i> , 2015, 16, 71-76.  | 2.6  | 11        |
| 40 | Charge Generation and Mobility-Limited Performance of Bulk Heterojunction Solar Cells with a Higher Adduct Fullerene. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10305-10316.   | 3.1  | 11        |
| 41 | Assembling and releasing performance of supramolecular hydrogels formed from simple drug molecule as the hydrogelator. <i>Chinese Chemical Letters</i> , 2007, 18, 1009-1012.  | 9.0  | 10        |
| 42 | The effect of passivation on different GaAs surfaces. <i>Applied Physics Letters</i> , 2013, 103, 173902.  | 3.3  | 10        |
| 43 | Nonlinear fluorescence spectroscopy of layered perovskite quantum wells. <i>Journal of Chemical Physics</i> , 2020, 153, 134202.   | 3.0  | 10        |
| 44 | Positive and negative magnetic field effects in organic semiconducting materials. <i>Synthetic Metals</i> , 2009, 159, 2323-2325.  | 3.9  | 9         |
| 45 | Nonlinear Photocurrent Spectroscopy of Layered 2D Perovskite Quantum Wells. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7362-7367.  | 4.6  | 9         |
| 46 | Elucidation of Quantum-Well-Specific Carrier Mobilities in Layered Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1116-1123.  | 4.6  | 9         |
| 47 | Multidimensional time-of-flight spectroscopy. <i>Journal of Chemical Physics</i> , 2021, 154, 220901.  | 3.0  | 7         |
| 48 | Enhanced $\pi$ - $\pi^*$ Electron Coupling in the Excited State by Combining Intramolecular Charge-Transfer States with Surface-Modified Magnetic Nanoparticles in Organic-Magnetic Nanocomposites. <i>Advanced Electronic Materials</i> , 2015, 1, 1500058. | 5.1  | 5         |
| 49 | Probing Carrier Transport in Layered Perovskites with Nonlinear Optical and Photocurrent Spectroscopies. <i>Journal of Physical Chemistry C</i> , 2021, 125, 8021-8030.  | 3.1  | 4         |
| 50 | Origin of layered perovskite device efficiencies revealed by multidimensional time-of-flight spectroscopy. <i>Journal of Chemical Physics</i> , 2022, 156, 084202.   | 3.0  | 3         |
| 51 | Direct Optical Observation of Stimulated Emission from Hot Charge Transfer Excitons in Bulk Heterojunction Polymer Solar Cells. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19697-19702.   | 3.1  | 2         |
| 52 | PREPARATION OF A HYDROGEN BONDED SUPRAMOLECULAR HYDROGELS WITH TWO DIMENSIONAL AGGREGATE STRUCTURE. <i>Acta Polymerica Sinica</i> , 2009, 007, 397-400.  | 0.0  | 2         |
| 53 | Polymer Blends from Optoelectronics to Spintronics. <i>ACS Symposium Series</i> , 2010, , 85-92.   | 0.5  | 1         |
| 54 | Organic Photovoltaics: Charge Photogeneration in Organic Photovoltaics: Role of Hot versus Cold Charge-Transfer Excitons ( <i>Adv. Energy Mater.</i> 1/2016). <i>Advanced Energy Materials</i> , 2016, 6, .  | 19.5 | 1         |

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|----|--|----|-----------|
| 55 | Non-Covalent Interactions in Organic/Inorganic Hybrid 2D Perovskites. , 2022, , 153-193. |    | 0         |