

# Siyuan Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

1,994  
citations

257357

24  
h-index

360920

35  
g-index

38  
all docs

38  
docs citations

38  
times ranked

3547  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Conjugated Side-Chain-Isolated D <sup>π</sup> A Copolymers Based on Benzo[1,2- <i>b</i> :4,5- <i>b'</i> ]dithiophene- <i>alt</i> -dithienylbenzotriazole: Synthesis and Photovoltaic Properties. <i>Chemistry of Materials</i> , 2012, 24, 3247-3254.  | 3.2  | 273       |
| 2  | Controlled Doping of Large-Area Trilayer MoS <sub>2</sub> with Molecular Reductants and Oxidants. <i>Advanced Materials</i> , 2015, 27, 1175-1181.   | 11.1 | 183       |
| 3  | Realization of mid-infrared graphene hyperbolic metamaterials. <i>Nature Communications</i> , 2016, 7, 10568.  | 5.8  | 183       |
| 4  | Effective Solution- and Vacuum-Processed n-Doping by Dimers of Benzimidazoline Radicals. <i>Advanced Materials</i> , 2014, 26, 4268-4272.  | 11.1 | 139       |
| 5  | Enhancing Field-Effect Mobility of Conjugated Polymers Through Rational Design of Branched Side Chains. <i>Advanced Functional Materials</i> , 2014, 24, 3734-3744.  | 7.8  | 112       |
| 6  | Controllable, Wide-Ranging n-Doping and p-Doping of Monolayer Group 6 Transition-Metal Disulfides and Diselenides. <i>Advanced Materials</i> , 2018, 30, e1802991.   | 11.1 | 97        |
| 7  | Alkyl chain engineering on a dithieno[3,2- <i>b</i> :5,4- <i>b'</i> ]silole- <i>alt</i> -dithienylthiazolo[5,4- <i>d</i> ]thiazole copolymer toward high performance bulk heterojunction solar cells. <i>Chemical Communications</i> , 2011, 47, 9474. | 2.2  | 94        |
| 8  | Synthesis and Photovoltaic Properties of D <sup>π</sup> A Copolymers Based on Dithienosilole and Benzotriazole. <i>Macromolecules</i> , 2011, 44, 7632-7638.   | 2.2  | 93        |
| 9  | Unipolar Electron Transport Polymers: A Thiazole Based All-Electron Acceptor Approach. <i>Chemistry of Materials</i> , 2016, 28, 6045-6049.  | 3.2  | 85        |
| 10 | Production of heavily n- and p-doped CVD graphene with solution-processed redox-active metal-organic species. <i>Materials Horizons</i> , 2014, 1, 111-115.  | 6.4  | 67        |
| 11 | Chemical Bond Analysis of Nonlinearity of Urea Crystal. <i>Journal of Physical Chemistry A</i> , 1997, 101, 5547-5550.   | 1.1  | 61        |
| 12 | KO <sup>t</sup> Bu-Initiated Aryl C-H Iodination: A Powerful Tool for the Synthesis of High Electron Affinity Compounds. <i>Journal of the American Chemical Society</i> , 2016, 138, 3946-3949.   | 6.6  | 57        |
| 13 | Conjugated Side-Chain Isolated Polythiophene: Synthesis and Photovoltaic Application. <i>Macromolecules</i> , 2012, 45, 113-118.   | 2.2  | 53        |
| 14 | Side Chain Engineering of Polythiophene Derivatives with a Thienylene-Vinylene Conjugated Side Chain for Application in Polymer Solar Cells. <i>Macromolecules</i> , 2012, 45, 2312-2320.  | 2.2  | 50        |
| 15 | Comparison of the Optical and Electrochemical Properties of Bi(perylene diimide)s Linked through Ortho and Bay Positions. <i>ACS Omega</i> , 2017, 2, 377-385.   | 1.6  | 41        |
| 16 | Calculation of the Bulk Modulus of Simple and Complex Crystals with the Chemical Bond Method. <i>Journal of Physical Chemistry B</i> , 2007, 111, 1304-1309.   | 1.2  | 37        |
| 17 | Synthesis and photovoltaic properties of copolymers of carbazole and thiophene with conjugated side chain containing acceptor end groups. <i>Polymer Chemistry</i> , 2011, 2, 1678.  | 1.9  | 37        |
| 18 | Ruddlesden-Popper Phase Hybrid Halide Perovskite/Small-Molecule Organic Blend Memory Transistors. <i>Advanced Materials</i> , 2021, 33, e2003137.  | 11.1 | 32        |

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|----|---|-----|-----------|
| 19 | n-Dopants Based on Dimers of Benzimidazoline Radicals: Structures and Mechanism of Redox Reactions. <i>Chemistry - A European Journal</i> , 2015, 21, 10878-10885.  | 1.7 | 31        |
| 20 | Comparison of 3D non-fullerene acceptors for organic photovoltaics based on naphthalene diimide and perylene diimide-substituted 9,9-difluorenylidene. <i>RSC Advances</i> , 2016, 6, 70493-70500.  | 1.7 | 27        |
| 21 | Photochemical Doping and Tuning of the Work Function and Dirac Point in Graphene Using Photoacid and Photobase Generators. <i>Advanced Functional Materials</i> , 2014, 24, 5147-5156.  | 7.8 | 25        |
| 22 | Facile Doping and Work Function Modification of Few-Layer Graphene Using Molecular Oxidants and Reductants. <i>Advanced Functional Materials</i> , 2017, 27, 1602004.   | 7.8 | 25        |
| 23 | Solution-Processed Doping of Trilayer WSe <sub>2</sub> with Redox-Active Molecules. <i>Chemistry of Materials</i> , 2017, 29, 7296-7304.  | 3.2 | 25        |
| 24 | Improved contacts to p-type MoS <sub>2</sub> transistors by charge-transfer doping and contact engineering. <i>Applied Physics Letters</i> , 2019, 115, .   | 1.5 | 25        |
| 25 | Unraveling the compositional heterogeneity and carrier dynamics of alkali cation doped 3D/2D perovskites with improved stability. <i>Materials Advances</i> , 2021, 2, 1253-1262.   | 2.6 | 23        |
| 26 | Reproducible Performance Improvements to Monolayer MoS <sub>2</sub> Transistors through Exposed Material Forming Gas Annealing. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 16683-16692.  | 4.0 | 21        |
| 27 | Efficient Hybrid Mixed-Ion Perovskite Photovoltaics: In Situ Diagnostics of the Roles of Cesium and Potassium Alkali Cation Addition. <i>Solar Rrl</i> , 2020, 4, 2000272.  | 3.1 | 19        |
| 28 | Intermediate-Sized Conjugated Donor Molecules for Organic Solar Cells: Comparison of Benzodithiophene and Benzobisthiazole-Based Cores. <i>Chemistry of Materials</i> , 2017, 29, 7880-7887.  | 3.2 | 17        |
| 29 | Role of Alkali-Metal Cations in Electronic Structure and Halide Segregation of Hybrid Perovskites. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 34402-34412.   | 4.0 | 15        |
| 30 | Effect of acceptor substituents on photophysical and photovoltaic properties of triphenylamine-carbazole alternating copolymers. <i>Synthetic Metals</i> , 2011, 161, 1383-1389.  | 2.1 | 14        |
| 31 | Wide-Band-Gap Mixed-Halide 3D Perovskites: Electronic Structure and Halide Segregation Investigation. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2277-2285.   | 2.0 | 10        |
| 32 | The role of Li-O bonds in calculations of nonlinear optical coefficients of LiXO <sub>3</sub> -type complex crystals. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1998, 78, 29-36. | 0.6 | 9         |
| 33 | Organometallic hydride-transfer agents as reductants for organic semiconductor molecules. <i>Inorganica Chimica Acta</i> , 2019, 489, 67-77.  | 1.2 | 8         |
| 34 | Mid-infrared hyperbolic metamaterial based on graphene-dielectric multilayers. , 2015, , .  |     | 3         |
| 35 | The role of Li-O bonds in calculations of nonlinear optical coefficients of LiXO <sub>3</sub> -type complex crystals. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1998, 78, 29-36. | 0.6 | 2         |
| 36 | Synthesis and Photovoltaic Properties of a Polythiophene Derivative with Triphenylamine-Vinylene Conjugated Side Chain Attaching Carbonyl end Group. <i>Advances in Polymer Technology</i> , 2013, 32, .  | 0.8 | 1         |

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|----|---|----|-----------|
| 37 | CALCULATION OF THE ELECTROSTATIC ENERGY<br><math>H_e(f_d)</math> ON<br><math>4f^{N-1}5d</math> CONFIGURATION OF LANTHANIDE IONS.<br>, 2002, ... |    | 0         |