# Le Huang

## List of Publications by Year in Descending Order



| | | | |
|---|---|---|---|
| 62 papers | 2,419 citations | 28 h-index | 48 g-index |
| 71 ext. papers | 2,959 ext. citations | 7 avg, IF | 5.3 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 62 | Perovskite CsPbBr3 decorating PbS nanocrystals for efficient near-infrared light-emitting diodes: A first-principles study. *Computational Materials Science*, **2022**, 209, 111361 | 3.2 | 0 |
| 61 | Hybrid 1D/2D heterostructure with electronic structure engineering toward high-sensitivity and polarization-dependent photodetector. *Science China Materials*, **2022**, 65, 732-740 | 7.1 | 4 |
| 60 | Enhanced Stability and Luminous Performance for Structured Mn-Doped CsPbCl3 Quantum Dots. *ChemistrySelect*, **2021**, 6, 11237-11243 | 1.8 | 0 |
| 59 | High hardness metal compounds: Prediction of Re3C under pressure. *Applied Physics Letters*, **2021**, 119, 221902 | 3.4 | |
| 58 | Stimuli-Responsive Materials from Ferrocene-Based Organic Small Molecule for Wearable Sensors. *Small*, **2021**, 17, e2103125 | 11 | 5 |
| 57 | Blue Molecular Emitter-Free and Doping-Free White Organic Light-Emitting Diodes With High Color Rendering. *IEEE Electron Device Letters*, **2021**, 42, 387-390 | 4.4 | 8 |
| 56 | Strain-Induced Tunable Band Offsets in Blue Phosphorus and WSe2 van der Waals Heterostructure. *Crystals*, **2021**, 11, 470 | 2.3 | 0 |
| 55 | Role of octahedral deformation in the broad-band emission in Mn-doped lead halide perovskite: First-principles investigation for the case of CsPbX3 (X = Cl, Br, I). *Applied Physics Letters*, **2021**, 118, 163901 | 3.4 | 2 |
| 54 | Universal Strategy Integrating Strain and Interface Engineering to Drive High-Performance 2D Material Photodetectors. *Advanced Optical Materials*, **2021**, 9, 2100450 | 8.1 | 8 |
| 53 | Ferroelectric-tuned van der Waals heterojunction with band alignment evolution. *Nature Communications*, **2021**, 12, 4030 | 17.4 | 18 |
| 52 | Cubic-cubic perovskite quantum dots/PbS mixed dimensional materials for highly efficient CO2 reduction. *Journal of Power Sources*, **2021**, 481, 228838 | 8.9 | 9 |
| 51 | Controlled growth of 2D ultrathin Ga2O3 crystals on liquid metal. *Nanoscale Advances*, **2021**, 3, 4411-4415 | 5.1 | 4 |
| 50 | A first principles study of p-type doping in two dimensional GaN. *Physical Chemistry Chemical Physics*, **2021**, 23, 20901-20908 | 3.6 | 2 |
| 49 | Gate-controlled ambipolar transport in b-AsP crystals and their VIS-NIF photodetection. *Nanoscale*, **2021**, 13, 10579-10586 | 7.7 | 4 |
| 48 | Deep insights into interface engineering by buffer layer for efficient perovskite solar cells: a first-principles study. *Science China Materials*, **2020**, 63, 1588-1596 | 7.1 | 3 |
| 47 | Strain engineering coupled with optical regulation towards a high-sensitivity In2S3 photodetector. *Materials Horizons*, **2020**, 7, 1427-1435 | 14.4 | 32 |
| 46 | Orbital localization induced magnetization in nonmetal-doped phosphorene. *Journal Physics D: Applied Physics*, **2020**, 53, 155001 | 3 | 1 |

| | | | |
|---|---|---|---|
| 45 | Two-dimensional transition metal dichalcogenides for lead halide perovskites-based photodetectors: band alignment investigation for the case of CsPbBr3/MoSe2. *Journal of Semiconductors*, **2020**, 41, 052206 | 2.3 | 8 |
| 44 | Reversible lithium storage capacity on carbon nitride by electric field. *Superlattices and Microstructures*, **2020**, 137, 106340 | 2.8 | 0 |
| 43 | Improved Photoluminescence in 2D Semiconductors Induced by Interface Magnetization. *ACS Photonics*, **2020**, 7, 3341-3345 | 6.3 | 3 |
| 42 | Two-dimensional X Se 2 ( X = Mn, V) based magnetic tunneling junctions with high Curie temperature. *Chinese Physics B*, **2019**, 28, 107504 | 1.2 | 12 |
| 41 | A new family of cation-disordered Zn(Cu)SiP compounds as high-performance anodes for next-generation Li-ion batteries. *Energy and Environmental Science*, **2019**, 12, 2286-2297 | 35.4 | 32 |
| 40 | Self-Powered SnSSe Alloy/Silicon Heterojunction Photodetectors with High Sensitivity in a Wide Spectral Range. *ACS Applied Materials & Interfaces*, **2019**, 11, 40222-40231 | 9.5 | 37 |
| 39 | The Coulomb interaction in van der Waals heterostructures. *Science China: Physics, Mechanics and Astronomy*, **2019**, 62, 1 | 3.6 | 19 |
| 38 | Press-engineered funnel effect in MoS2 monolayer homojunction. *Journal Physics D: Applied Physics* , **2019**, 52, 055103 | 3 | 1 |
| 37 | Electronic structure and exciton shifts in Sb-doped MoS2 monolayer. *Npj 2D Materials and Applications*, **2019**, 3, | 8.8 | 56 |
| 36 | Synthesis of submillimeter SnSexS2 (0 Journal of Materials Chemistry C, **2018**, 6, 4985-4993 | 7.1 | 7 |
| 35 | Tunable Polarity Behavior and High-Performance Photosensitive Characteristics in Schottky-Barrier Field-Effect Transistors Based on Multilayer WS. *ACS Applied Materials & Interfaces*, **2018**, 10, 2745-2751 | 9.5 | 13 |
| 34 | Fabrication of a high performance ZnIn2S4/Si heterostructure photodetector array for weak signal detection. *Journal of Materials Chemistry C*, **2018**, 6, 12928-12939 | 7.1 | 20 |
| 33 | Large tunneling magnetoresistance in magnetic tunneling junctions based on two-dimensional CrX (X = Br, I) monolayers. *Nanoscale*, **2018**, 10, 22196-22202 | 7.7 | 26 |
| 32 | Turning a disadvantage into an advantage: synthesizing high-quality organometallic halide perovskite nanosheet arrays for humidity sensors. *Journal of Materials Chemistry C*, **2017**, 5, 2504-2508 | 7.1 | 52 |
| 31 | Tunable Schottky Barrier at MoSe2/Metal Interfaces with a Buffer Layer. *Journal of Physical Chemistry C*, **2017**, 121, 9305-9311 | 3.8 | 31 |
| 30 | Light induced double n state anti-ambipolar behavior and self-driven photoswitching in p-WSe 2 /n-SnS 2 heterostructures. *2D Materials*, **2017**, 4, 025097 | 5.9 | 46 |
| 29 | High-performance photodetectors based on SbS nanowires: wavelength dependence and wide temperature range utilization. *Nanoscale*, **2017**, 9, 12364-12371 | 7.7 | 52 |
| 28 | Modulation of electronic and optical properties in mixed halide perovskites CsPbCl3xBr3(1-x) and CsPbBr3xI3(1-x). *Applied Physics Letters*, **2017**, 110, 113901 | 3.4 | 26 |

| | | | |
|---|---|---|---|
| 27 | Large-scale 2D PbI monolayers: experimental realization and their indirect band-gap related properties. *Nanoscale*, **2017**, 9, 3736-3741 | 7.7 | 75 |
| 26 | Short-Wave Near-Infrared Linear Dichroism of Two-Dimensional Germanium Selenide. *Journal of the American Chemical Society*, **2017**, 139, 14976-14982 | 16.4 | 191 |
| 25 | A two-dimensional Fe-doped SnS magnetic semiconductor. *Nature Communications*, **2017**, 8, 1958 | 17.4 | 214 |
| 24 | Computational design of enhanced photocatalytic activity of two-dimensional cadmium iodide. *RSC Advances*, **2017**, 7, 53653-53657 | 3.7 | 9 |
| 23 | Role of defects in enhanced Fermi level pinning at interfaces between metals and transition metal dichalcogenides. *Physical Review B*, **2017**, 96, | 3.3 | 20 |
| 22 | Composition-tunable 2D SnSe2(1−x)S2x alloys towards efficient bandgap engineering and high performance (opto)electronics. *Journal of Materials Chemistry C*, **2017**, 5, 84-90 | 7.1 | 64 |
| 21 | Co-nucleus 1D/2D Heterostructures with Bi2S3 Nanowire and MoS2 Monolayer: One-Step Growth and Defect-Induced Formation Mechanism. *ACS Nano*, **2016**, 10, 8938-46 | 16.7 | 55 |
| 20 | Large-Size 2D Cu S Nanosheets with Giant Phase Transition Temperature Lowering (120 K) Synthesized by a Novel Method of Super-Cooling Chemical-Vapor-Deposition. *Advanced Materials*, **2016**, 28, 8271-8276 | 24 | 46 |
| 19 | Anti-Ambipolar Field-Effect Transistors Based On Few-Layer 2D Transition Metal Dichalcogenides. *ACS Applied Materials & Interfaces*, **2016**, 8, 15574-81 | 9.5 | 56 |
| 18 | Enhanced rectification, transport property and photocurrent generation of multilayer ReSe2/MoS2 p heterojunctions. *Nano Research*, **2016**, 9, 507-516 | 10 | 107 |
| 17 | Large scale ZrS2 atomically thin layers. *Journal of Materials Chemistry C*, **2016**, 4, 3143-3148 | 7.1 | 43 |
| 16 | Tuned polarity and enhanced optoelectronic performances of few-layer Nb0.125Re0.875Se2 flakes. *Applied Physics Letters*, **2016**, 109, 112102 | 3.4 | 6 |
| 15 | Structural anisotropy results in strain-tunable electronic and optical properties in monolayer GeX and SnX (X = S, Se, Te). *Journal of Chemical Physics*, **2016**, 144, 114708 | 3.9 | 125 |
| 14 | Tunable electronic structure of black phosphorus/blue phosphorus van der Waals p-n heterostructure. *Applied Physics Letters*, **2016**, 108, 083101 | 3.4 | 91 |
| 13 | Flexible photodetectors based on phase dependent PbI2 single crystals. *Journal of Materials Chemistry C*, **2016**, 4, 6492-6499 | 7.1 | 77 |
| 12 | Direct Vapor Phase Growth and Optoelectronic Application of Large Band Offset SnS2/MoS2 Vertical Bilayer Heterostructures with High Lattice Mismatch. *Advanced Electronic Materials*, **2016**, 2, 1600298 | 6.4 | 128 |
| 11 | An Efficient and Low-Cost Photolithographic-Pattern-Transfer Technique to Fabricate Electrode Arrays for Micro-/Nanoelectronics. *Advanced Materials Technologies*, **2016**, 1, 1600001 | 6.8 | 23 |
| 10 | Synthesis and transport properties of large-scale alloy Co(0.16)Mo(0.84)S2 bilayer nanosheets. *ACS Nano*, **2015**, 9, 1257-62 | 16.7 | 64 |

| | | | |
|---|---|---|---|
| 9 | Electric-Field Tunable Band Offsets in Black Phosphorus and MoS2 van der Waals p-n Heterostructure. *Journal of Physical Chemistry Letters*, **2015**, 6, 2483-8 | 6.4 | 153 |
| 8 | Ab Initio Study of the Dielectric and Electronic Properties of Multilayer GaS Films. *Journal of Physical Chemistry Letters*, **2015**, 6, 1059-64 | 6.4 | 29 |
| 7 | Electrical and magnetic properties of FeS2 and CuFeS2 nanoplates. *RSC Advances*, **2015**, 5, 91103-91107 | 3.7 | 25 |
| 6 | Effects of strain on the band gap and effective mass in two-dimensional monolayer GaX (X = S, Se, Te). *RSC Advances*, **2015**, 5, 5788-5794 | 3.7 | 54 |
| 5 | Strain induced piezoelectric effect in black phosphorus and MoS2 van der Waals heterostructure. *Scientific Reports*, **2015**, 5, 16448 | 4.9 | 73 |
| 4 | Tunable Polarity Behavior and Self-Driven Photoswitching in p-WSe/n-WS Heterojunctions. *Small*, **2015**, 11, 5430-8 | 11 | 84 |
| 3 | Intrinsic defects in gallium sulfide monolayer: a first-principles study. *RSC Advances*, **2015**, 5, 50883-50889 | 3.7 | 24 |
| 2 | Influential Electronic and Magnetic Properties of the Gallium Sulfide Monolayer by Substitutional Doping. *Journal of Physical Chemistry C*, **2015**, 119, 29148-29156 | 3.8 | 32 |
| 1 | The Study on the Catalytic Effect of HBr on the Hydrolyzed Silica-Coated Quantum Dots of CsPbBr3 with Improved Stability. *Journal of Electronic Materials*,1 | 1.9 | |