

# Feng-Chuan Chuang

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/7348859/feng-chuan-chuang-publications-by-citations.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

102  
papers

2,231  
citations

26  
h-index

43  
g-index

115  
ext. papers

2,770  
ext. citations

5.2  
avg, IF

4.98  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 102 | Prediction of large-gap two-dimensional topological insulators consisting of bilayers of group III elements with Bi. <i>Nano Letters</i> , <b>2014</b> , 14, 2505-8  | 11.5 | 153       |
| 101 | Structure of neutral aluminum clusters Al <sub>n</sub> (2 ≤ n ≤ 23): Genetic algorithm tight-binding calculations. <i>Physical Review B</i> , <b>2006</b> , 73,  | 3.3  | 103       |
| 100 | Tunable topological electronic structures in Sb(111) bilayers: A first-principles study. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 022424  | 3.4  | 92        |
| 99  | Atomically precise bottom-up synthesis of extended [5]triangulene. <i>Science Advances</i> , <b>2019</b> , 5, eaav7717   | 14.3 | 86        |
| 98  | Thickness dependent electronic properties of Pt dichalcogenides. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,   | 8.8  | 84        |
| 97  | Robust Large Gap Two-Dimensional Topological Insulators in Hydrogenated III-V Buckled Honeycombs. <i>Nano Letters</i> , <b>2015</b> , 15, 6568-74  | 11.5 | 80        |
| 96  | The nontrivial electronic structure of Bi/Sb honeycombs on SiC(0001). <i>New Journal of Physics</i> , <b>2015</b> , 17, 025005   | 2.9  | 75        |
| 95  | Nontrivial topological electronic structures in a single Bi(111) bilayer on different substrates: A first-principles study. <i>Physical Review B</i> , <b>2013</b> , 88,   | 3.3  | 73        |
| 94  | Magic structures of h-passivated 110 silicon nanowires. <i>Nano Letters</i> , <b>2006</b> , 6, 277-81  | 11.5 | 63        |
| 93  | Finding the reconstructions of semiconductor surfaces via a genetic algorithm. <i>Surface Science</i> , <b>2004</b> , 573, L375-L381   | 1.8  | 56        |
| 92  | Phase-Engineered PtSe <sub>2</sub> -Layered Films by a Plasma-Assisted Selenization Process toward All PtSe <sub>2</sub> -Based Field Effect Transistor to Highly Sensitive, Flexible, and Wide-Spectrum Photoresponse Photodetectors. <i>Small</i> , <b>2018</b> , 14, e1800032 | 11   | 54        |
| 91  | Direct evidence of interaction-induced Dirac cones in a monolayer silicene/Ag(111) system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 14656-14661   | 11.5 | 52        |
| 90  | Hybridizing Plasmonic Materials with 2D-Transition Metal Dichalcogenides toward Functional Applications. <i>Small</i> , <b>2020</b> , 16, e1904271   | 11   | 49        |
| 89  | Hydrogenated ultra-thin tin films predicted as two-dimensional topological insulators. <i>New Journal of Physics</i> , <b>2014</b> , 16, 115008  | 2.9  | 49        |
| 88  | Strain driven topological phase transitions in atomically thin films of group IV and V elements in the honeycomb structures. <i>New Journal of Physics</i> , <b>2014</b> , 16, 105018  | 2.9  | 48        |
| 87  | Thermally Strained Band Gap Engineering of Transition-Metal Dichalcogenide Bilayers with Enhanced Light-Matter Interaction toward Excellent Photodetectors. <i>ACS Nano</i> , <b>2017</b> , 11, 8768-8776  | 16.7 | 47        |
| 86  | Geometries and stabilities of Ag-doped Si <sub>n</sub> (n=1-13) clusters: a first-principles study. <i>Journal of Chemical Physics</i> , <b>2007</b> , 127, 144313   | 3.9  | 45        |

|    |  |      |    |
|----|--|------|----|
| 85 | Melting of small Sn clusters by ab initio molecular dynamics simulations. <i>Physical Review B</i> , <b>2004</b> , 69,   | 3.3  | 44 |
| 84 | Predicted Growth of Two-Dimensional Topological Insulator Thin Films of III-V Compounds on Si(111) Substrate. <i>Scientific Reports</i> , <b>2015</b> , 5, 15463   | 4.9  | 39 |
| 83 | Engineering Surface Structure of Spinel Oxides via High-Valent Vanadium Doping for Remarkably Enhanced Electrocatalytic Oxygen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 33012-33021 | 9.5  | 36 |
| 82 | Quantum Spin Hall States in Stanene/Ge(111). <i>Scientific Reports</i> , <b>2015</b> , 5, 14196  | 4.9  | 35 |
| 81 | Structure of Si(114) determined by global optimization methods. <i>Surface Science</i> , <b>2005</b> , 578, 183-195  | 1.8  | 33 |
| 80 | Dimensionality-Mediated Semimetal-Semiconductor Transition in Ultrathin PtTe <sub>2</sub> Films. <i>Physical Review Letters</i> , <b>2020</b> , 124, 036402  | 7.4  | 28 |
| 79 | Sugar Folding: A Novel Structural Prediction Tool for Oligosaccharides and Polysaccharides 2. <i>Journal of Chemical Theory and Computation</i> , <b>2007</b> , 3, 1629-43   | 6.4  | 28 |
| 78 | Giant Emission Enhancement of Solid-State Gold Nanoclusters by Surface Engineering. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 8270-8276   | 16.4 | 28 |
| 77 | Electronic structures of an epitaxial graphene monolayer on SiC(0001) after metal intercalation (metal = Al, Ag, Au, Pt, and Pd): A first-principles study. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 063115           | 3.4  | 26 |
| 76 | Predicting two-dimensional topological phases in Janus materials by substitutional doping in transition metal dichalcogenide monolayers. <i>Npj 2D Materials and Applications</i> , <b>2019</b> , 3,                             | 8.8  | 25 |
| 75 | Synthesis and characterization of a single-layer conjugated metal-organic structure featuring a non-trivial topological gap. <i>Nanoscale</i> , <b>2019</b> , 11, 878-881  | 7.7  | 25 |
| 74 | The Structure of Ultrathin H-Passivated [112] Silicon Nanowires. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 7933-7937   | 3.8  | 24 |
| 73 | Nonsymmorphic cubic Dirac point and crossed nodal rings across the ferroelectric phase transition in LiOsO <sub>3</sub> . <i>Physical Review Materials</i> , <b>2018</b> , 2,  | 3.2  | 24 |
| 72 | Prediction of two-dimensional topological insulator by forming a surface alloy on Au/Si(111) substrate. <i>Physical Review B</i> , <b>2016</b> , 93,   | 3.3  | 22 |
| 71 | Structural and electronic properties of hydrogen adsorptions on BC <sub>2</sub> sheet and graphene: a comparative study. <i>Nanotechnology</i> , <b>2011</b> , 22, 135703  | 3.4  | 22 |
| 70 | First-principles study of the atomic and electronic structure of the Si(111)( $\sqrt{3}\times\sqrt{3}$ )Au surface reconstruction. <i>Physical Review B</i> , <b>2007</b> , 76,  | 3.3  | 22 |
| 69 | Ab initio molecular dynamics simulation of liquid Al <sub>88</sub> Si <sub>12</sub> alloys. <i>Journal of Chemical Physics</i> , <b>2005</b> , 122, 34508  | 3.9  | 21 |
| 68 | Honeycomb chain structure of the AuSi(111)( $\sqrt{3}\times\sqrt{3}$ ) surface reconstruction: A first-principles study. <i>Physical Review B</i> , <b>2008</b> , 77,  | 3.3  | 20 |

|    |  |      |    |
|----|--|------|----|
| 67 | Antisymmetric Magnetoresistance in a van der Waals Antiferromagnetic/Ferromagnetic Layered MnPS/FeGeTe Stacking Heterostructure. <i>ACS Nano</i> , <b>2020</b> , 14, 12037-12044             | 16.7 | 20 |
| 66 | Spin-orbit quantum impurity in a topological magnet. <i>Nature Communications</i> , <b>2020</b> , 11, 4415   | 17.4 | 20 |
| 65 | First-principles study of Bi and Sb intercalated graphene on SiC(0001) substrate. <i>Surface Science</i> , <b>2013</b> , 616, 149-154  | 1.8  | 19 |
| 64 | Global structural optimization of Si magic clusters on the Si(111) $7\times 7$ surface. <i>Surface Science</i> , <b>2005</b> , 598, L339-L346  | 1.8  | 19 |
| 63 | Model reconstructions for the Si(337) orientation. <i>Journal of Applied Physics</i> , <b>2005</b> , 98, 073507  | 2.5  | 19 |
| 62 | Electronic structures of an epitaxial graphene monolayer on SiC(0001) after gold intercalation: a first-principles study. <i>Nanotechnology</i> , <b>2011</b> , 22, 275704                   | 3.4  | 17 |
| 61 | Growth of a predicted two-dimensional topological insulator based on InBi-Si(111)- $7\times 7$ . <i>Physical Review B</i> , <b>2018</b> , 98,  | 3.3  | 17 |
| 60 | Room-temperature deposition of group III metals on Si(100): A comparative study of nucleation behavior. <i>Surface Science</i> , <b>2010</b> , 604, 396-403                                  | 1.8  | 16 |
| 59 | Sugar Folding: A Novel Structural Prediction Tool for Oligosaccharides and Polysaccharides 1. <i>Journal of Chemical Theory and Computation</i> , <b>2007</b> , 3, 1620-8                    | 6.4  | 16 |
| 58 | Two-dimensional Topological Crystalline Insulator Phase in Sb/Bi Planar Honeycomb with Tunable Dirac Gap. <i>Scientific Reports</i> , <b>2016</b> , 6, 18993                                 | 4.9  | 14 |
| 57 | Quantum anomalous Hall insulator phase in asymmetrically functionalized germanene. <i>Physical Review B</i> , <b>2017</b> , 96,  | 3.3  | 13 |
| 56 | Layer-dependent band engineering of Pd dichalcogenides: a first-principles study. <i>New Journal of Physics</i> , <b>2020</b> , 22, 053010   | 2.9  | 13 |
| 55 | Magnetic and topological properties in hydrogenated transition metal dichalcogenide monolayers. <i>Chinese Journal of Physics</i> , <b>2020</b> , 66, 15-23                                  | 3.5  | 12 |
| 54 | Selection Role of Metal Oxides into Transition Metal Dichalcogenide Monolayers by a Direct Selenization Process. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 9645-9652 | 9.5  | 12 |
| 53 | Electronic structure of the indium-adsorbed Au/Si(111)- $3\times 3$ surface: A first-principles study. <i>Physical Review B</i> , <b>2012</b> , 85,  | 3.3  | 12 |
| 52 | Chemically induced large-gap quantum anomalous Hall insulator states in III-Bi honeycombs. <i>Npj Computational Materials</i> , <b>2017</b> , 3,   | 10.9 | 11 |
| 51 | Tunable topological electronic structure of silicene on a semiconducting Bi/Si(111)- $3\times 3$ substrate. <i>Physical Review B</i> , <b>2014</b> , 90,                                     | 3.3  | 11 |
| 50 | A kinetic Monte Carlo study on the role of defects and detachment in the formation and growth of In chains on Si(100). <i>Journal of Physics Condensed Matter</i> , <b>2009</b> , 21, 405002 | 1.8  | 11 |

|    |  |     |    |
|----|--|-----|----|
| 49 | Tunable magnetic states on the zigzag edges of hydrogenated and halogenated group-IV nanoribbons. <i>Scientific Reports</i> , <b>2016</b> , 6, 39083   | 4.9 | 11 |
| 48 | First-principles calculated decomposition pathways for LiBH <sub>4</sub> nanoclusters. <i>Scientific Reports</i> , <b>2016</b> , 6, 26056  | 4.9 | 11 |
| 47 | Quantum Phase Transition of Correlated Iron-Based Superconductivity in LiFe <sub>1-x</sub> Co <sub>x</sub> As. <i>Physical Review Letters</i> , <b>2019</b> , 123, 217004  | 7.4 | 11 |
| 46 | Electronic structure of the Pb/Si(111)( $\sqrt{7}\times\sqrt{7}$ ) surface reconstruction: A first-principles study. <i>Physical Review B</i> , <b>2010</b> , 81,  | 3.3 | 10 |
| 45 | The screening effect on field enhancement factor of the finite-length small radius single-walled carbon nanotubes. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 014301   | 2.5 | 10 |
| 44 | Prediction of Quantum Anomalous Hall Effect in MBi and MSb (M:Ti, Zr, and Hf) Honeycombs. <i>Nanoscale Research Letters</i> , <b>2018</b> , 13, 43   | 5   | 9  |
| 43 | Prediction of Quantum Anomalous Hall Insulator in half-fluorinated GaBi Honeycomb. <i>Scientific Reports</i> , <b>2016</b> , 6, 31317  | 4.9 | 8  |
| 42 | First-principles study of atomic structures and electronic properties of ultrathin Bi films on Ge(111). <i>Surface Science</i> , <b>2014</b> , 626, 68-75  | 1.8 | 8  |
| 41 | Giant Emission Enhancement of Solid-State Gold Nanoclusters by Surface Engineering. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 8347-8353  | 3.6 | 7  |
| 40 | Atomic and electronic structures of Ag/Si(111)-c( $\sqrt{12}\times\sqrt{12}$ ) surface: A first-principles study. <i>Physical Review B</i> , <b>2008</b> , 78,   | 3.3 | 7  |
| 39 | On the structure of the Si(103) surface. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 171909   | 3.4 | 7  |
| 38 | Effects of oxygen stoichiometry on the phase stability of sputter-deposited CdxZn1-xO alloys. <i>Physical Review Materials</i> , <b>2019</b> , 3,  | 3.2 | 7  |
| 37 | Tailoring magnetism in self-intercalated Cr <sub>1+x</sub> Te <sub>2</sub> epitaxial films. <i>Physical Review Materials</i> , <b>2020</b> , 4,  | 3.2 | 7  |
| 36 | Correlating structural, electronic, and magnetic properties of epitaxial VSe <sub>2</sub> thin films. <i>Physical Review B</i> , <b>2020</b> , 102,  | 3.3 | 7  |
| 35 | Large-gap topological insulators in functionalized ordered double transition metal carbide MXenes. <i>Physical Review B</i> , <b>2020</b> , 102,   | 3.3 | 7  |
| 34 | Tuning topological phases and electronic properties of monolayer ternary transition metal chalcogenides (ABX <sub>4</sub> , A/B = Zr, Hf, or Ti; X = S, Se, or Te). <i>Applied Physics Letters</i> , <b>2021</b> , 118, 111901 | 3.4 | 7  |
| 33 | Evolution of the Electronic Properties of ZrX <sub>2</sub> (X = S, Se, or Te) Thin Films under Varying Thickness. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 1134-1142  | 3.8 | 7  |
| 32 | Structural and electronic properties of T graphene nanotubes: a first-principles study. <i>New Journal of Physics</i> , <b>2019</b> , 21, 053015   | 2.9 | 6  |

|    |   |     |   |
|----|---|-----|---|
| 31 | Enhanced nucleation of Al islands on H-dosed Si(100)-2 × 1 surface: A combined density functional theory and kinetic Monte Carlo study. <i>Surface Science</i> , <b>2013</b> , 617, 73-80   | 1.8 | 6 |
| 30 | Kinetic Monte Carlo simulation of an atomistic model for oxide island formation and step pinning during etching by oxygen of vicinal Si(100). <i>Thin Solid Films</i> , <b>2009</b> , 517, 1949-1957  | 2.2 | 6 |
| 29 | MODELING OF CO-DEPOSITION OF INDIUM AND TIN ON SILICON(100): A KINETIC MONTE CARLO STUDY. <i>International Journal of Modern Physics B</i> , <b>2011</b> , 25, 1889-1898  | 1.1 | 6 |
| 28 | First-principles study of indium-stabilized {103} facets in Ge quantum dots. <i>Physical Review B</i> , <b>2007</b> , 75,   | 3.3 | 6 |
| 27 | Prediction of two-dimensional organic topological insulator in metal-DCB lattices. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 233301   | 3.4 | 6 |
| 26 | Theoretical prediction of topological insulators in two-dimensional ternary transition metal chalcogenides (MM <sub>4</sub> X <sub>4</sub> , M <sub>2</sub> X <sub>2</sub> Ta, Nb, or V; M <sub>2</sub> X <sub>2</sub> Ir, Rh, or Co; X <sub>2</sub> X <sub>2</sub> Se or Te). <i>Chinese Journal of Physics</i> , <b>2021</b> , 73, 95-102 | 3.5 | 6 |
| 25 | Atomic structure and mechanical properties of BC <sub>2</sub> N superlattice. <i>Diamond and Related Materials</i> , <b>2010</b> , 19, 1341-1347  | 3.5 | 5 |
| 24 | Ab initio molecular dynamics simulation of liquid Al <sub>x</sub> Ge <sub>1-x</sub> alloys. <i>Physical Review B</i> , <b>2004</b> , 70,  | 3.3 | 5 |
| 23 | Anisotropic Rashba splitting in Pt-based Janus monolayers PtXY (X, Y = S, Se, or Te). <i>Nanoscale Advances</i> ,   | 5.1 | 5 |
| 22 | Itinerant ferromagnetism mediated by giant spin polarization of the metallic ligand band in the van der Waals magnet Fe <sub>5</sub> GeTe <sub>2</sub> . <i>Physical Review B</i> , <b>2021</b> , 103,  | 3.3 | 5 |
| 21 | Controlling the Polarity of the Molecular Beam Epitaxy Grown In-Bi Atomic Film on the Si(111) Surface. <i>Scientific Reports</i> , <b>2019</b> , 9, 756   | 4.9 | 4 |
| 20 | Stable structure of high In coverage on Si(111)BB-Au. <i>Physical Review B</i> , <b>2014</b> , 90,  | 3.3 | 4 |
| 19 | Quantum anomalous Hall insulator phases in Fe-doped GaBi honeycomb. <i>Chinese Journal of Physics</i> , <b>2020</b> , 67, 246-252   | 3.5 | 4 |
| 18 | Influence of strain on the hexagonal motifs of the Ir(100) surface reconstructions: A first-principles study. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2010</b> , 28, 1366-1370   | 2.9 | 3 |
| 17 | Extended $\sqrt{3} \times \sqrt{3}$ Bi atomic layer on Si(1 1 1) fabricated by thermal desorption. <i>Applied Surface Science</i> , <b>2020</b> , 504, 144103   | 6.7 | 3 |
| 16 | Fermionic order by disorder in a van der Waals antiferromagnet. <i>Scientific Reports</i> , <b>2020</b> , 10, 15311   | 4.9 | 3 |
| 15 | Band Engineering and Van Hove Singularity on HfX <sub>2</sub> Thin Films (X = S, Se, or Te). <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 1071-1079   | 4   | 3 |
| 14 | Manifold dynamic non-covalent interactions for steering molecular assembly and cyclization. <i>Chemical Science</i> , <b>2021</b> , 12, 11659-11667   | 9.4 | 3 |

|    |   |      |   |
|----|---|------|---|
| 13 | Edge states in the honeycomb reconstruction of two-dimensional silicon nanosheets. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 023102   | 3.4  | 2 |
| 12 | Quantum spin Hall insulating phase and van Hove singularities in Zintl single-quintuple-layer AM <sub>2</sub> X <sub>2</sub> (A = Ca, Sr, or Ba; M = Zn or Cd; X = Sb or Bi) family. <i>Applied Physics Reviews</i> , <b>2022</b> , 9, 011410 | 17.3 | 2 |
| 11 | Dimensional crossover and band topology evolution in ultrathin semimetallic NiTe <sub>2</sub> films. <i>Npj 2D Materials and Applications</i> , <b>2021</b> , 5,  | 8.8  | 2 |
| 10 | Prediction of massless Dirac fermions in a carbon nitride covalent network. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 133104  | 3.4  | 2 |
| 9  | Carrier recombination dynamics in electronically coupled multi-layer InAs/GaAs quantum dots. <i>Journal of Luminescence</i> , <b>2018</b> , 195, 109-115  | 3.8  | 2 |
| 8  | HOT Graphene and HOT Graphene Nanotubes: New Low Dimensional Semimetals and Semiconductors. <i>Nanoscale Research Letters</i> , <b>2020</b> , 15, 56  | 5    | 1 |
| 7  | Doping limitation due to self-compensation by native defects in In-doped rocksalt CdZnO. <i>Journal of Physics Condensed Matter</i> , <b>2021</b> , 34,   | 1.8  | 1 |
| 6  | Coexistence of topological nontrivial and spin-gapless semiconducting behavior in MnPO <sub>4</sub> : A composite quantum compound. <i>Physical Review B</i> , <b>2021</b> , 103,   | 3.3  | 1 |
| 5  | Quantum well electronic states in spatially decoupled 2D Pb nanoislands on Nb-doped SrTiO <sub>3</sub> (0 0 1). <i>Applied Surface Science</i> , <b>2021</b> , 537, 147967  | 6.7  | 0 |
| 4  | Tailoring long-range superlattice chirality in molecular self-assemblies weak fluorine-mediated interactions. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 21489-21495  | 3.6  | 0 |
| 3  | Prediction of topological Dirac semimetal in Ca-based Zintl layered compounds CaMX (M = Zn or Cd; X = N, P, As, Sb, or Bi).. <i>Scientific Reports</i> , <b>2022</b> , 12, 4582   | 4.9  | 0 |
| 2  | Robust Tunable Large-Gap Quantum Spin Hall States in Monolayer CuS on Insulating Substrates.. <i>ACS Omega</i> , <b>2022</b> , 7, 15760-15768   | 3.9  | 0 |
| 1  | 2D Transition Metal Dichalcogenides: Hybridizing Plasmonic Materials with 2D-Transition Metal Dichalcogenides toward Functional Applications (Small 15/2020). <i>Small</i> , <b>2020</b> , 16, 2070081  | 11   |   |