

# Tao Ouyang

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/8886311/tao-ouyang-publications-by-year.pdf>

**Version:** 2024-04-24

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.

79  
papers

1,388  
citations

20  
h-index

35  
g-index

83  
ext. papers

1,747  
ext. citations

3.6  
avg, IF

4.87  
L-index

#	Paper	IF	Citations
79	Effect of ion irradiation on thermal conductivity of phosphorene and underlying mechanism. <i>Wuli Xuebao/Acta Physica Sinica</i> , <b>2022</b> , 71, 056101	0.6	0
78	Notable effect of magnetic order on the phonon transport in semi-hydrogenated graphene. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 092403	3.4	1
77	High-Throughput Screening of Two-Dimensional Planar sp Carbon Space Associated with a Labeled Quotient Graph. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 11511-11519	6.4	4
76	KP15: Natural van der Waals material with ultra-low thermal conductivity and excellent thermoelectric performance. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 195104	2.5	
75	High-throughput computation of novel ternary B <sub>11</sub> N structures and carbon allotropes with electronic-level insights into superhard materials from machine learning. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 27596-27614	13	0
74	Unique Arrangement of Atoms Leads to Low Thermal Conductivity: A Comparative Study of Monolayer MgC. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 10353-10358	6.4	2
73	Bayesian optimization-based design of defect gamma-graphyne nanoribbons with high thermoelectric conversion efficiency. <i>Carbon</i> , <b>2021</b> , 176, 52-60	10.4	10
72	Tunable bandgaps and flat bands in twisted bilayer biphenylene carbon*. <i>Chinese Physics B</i> , <b>2021</b> , 30, 077103	1.2	1
71	Potential thermoelectric candidate monolayer silicon diphosphide (SiP <sub>2</sub> ) from a first-principles calculation. <i>Computational Materials Science</i> , <b>2021</b> , 188, 110154	3.2	3
70	Two-Dimensional Carbon Allotropes and Nanoribbons based on 2,6-Polyazulene Chains: Stacking Stabilities and Electronic Properties. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 732-738	6.4	19
69	Newly discovered graphyne allotrope with rare and robust Dirac node loop. <i>Nanoscale</i> , <b>2021</b> , 13, 3564-3571	7.1	14
68	High-Throughput Computation of New Carbon Allotropes with Diverse Hybridization and Ultrahigh Hardness. <i>Crystals</i> , <b>2021</b> , 11, 783	2.3	3
67	Enhanced and spin-dependent infrared optical response of silicene/silicane superlattices with Cr adsorption. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 405106	3	
66	New Two-Dimensional Wide Band Gap Hydrocarbon Insulator by Hydrogenation of a Biphenylene Sheet. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 8889-8896	6.4	3
65	Type-II lateral SnSe/GeTe heterostructures for solar photovoltaic applications with high efficiency. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 3643-3649	5.1	1
64	Ultra-high thermal conductivities of tetrahedral carbon allotropes with non-simple structures. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 24550-24556	3.6	1
63	Excellent thermoelectric performance of open framework Si <sub>24</sub> nanowires from density functional based tight-binding calculation. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 215108	2.5	1

62	First-principles calculations of phonon transport in two-dimensional penta-X2C family. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 205106	2.5	5
61	Excellent properties of type-II van der Waals Janus-XM <sub>2</sub> X <sub>2</sub> /MX heterojunctions toward solar cell utilization. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 405101	3	2
60	Tunable photoelectronic properties of hydrogenated-silicene/halogenated-silicene superlattices for water splitting. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 084301	2.5	14
59	Intrinsic piezoelectricity of monolayer group IV $\bar{V}$ MX <sub>2</sub> : SiP <sub>2</sub> , SiAs <sub>2</sub> , GeP <sub>2</sub> , and GeAs <sub>2</sub> . <i>Applied Physics Letters</i> , <b>2020</b> , 116, 023103	3-4	14
58	Few-Layer E <sub>n</sub> Se with Strong Visible Light Absorbance and Ultrahigh Carrier Mobility. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4-3	7
57	Thermoelectric properties of orthorhombic silicon allotrope Si (oP32) from first-principles calculations. <i>Chinese Physics B</i> , <b>2020</b> , 29, 118401	1.2	0
56	Improving the thermoelectric properties of carbon nanotubes through introducing graphene nanosprings. <i>Current Applied Physics</i> , <b>2020</b> , 20, 150-154	2.6	1
55	Quasi-bonding driven abnormal isotropic thermal transport in intrinsically anisotropic nanostructure: a case of study of a phosphorus nanotube array. <i>Nanotechnology</i> , <b>2020</b> , 31, 095704	3-4	2
54	Strain effect on phonon transport in open framework Si <sub>24</sub> : A first-principles study. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2020</b> , 118, 113870	3	2
53	Photogalvanic-Effect-Induced Spin-Polarized Current in Defective Silicane with H Vacancies. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 2000395	2.5	4
52	Systematic Enumeration of Low-Energy Graphyne Allotropes Based on a Coordination-Constrained Searching Strategy. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 2000437	2.5	5
51	Optoelectronic properties of type-II SePtTe/InS van der Waals heterojunction. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 043103	2.5	3
50	2D O-PTI monolayer: a robust large bandgap topological insulator. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 025302	3	0
49	Electronic and Spin-Dependent Optical Properties of Fe-Adsorbed Armchair Silicene/Silicane Superlattices. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 1900494	2.5	2
48	Theoretical prediction of low-energy Stone-Wales graphene with an intrinsic type-III Dirac cone. <i>Physical Review B</i> , <b>2020</b> , 101,	3-3	28
47	Ge <sub>3</sub> P <sub>2</sub> : New viable two-dimensional semiconductors with ultrahigh carrier mobility. <i>Applied Surface Science</i> , <b>2019</b> , 497, 143803	6.7	12
46	Stone-Wales graphene: A two-dimensional carbon semimetal with magic stability. <i>Physical Review B</i> , <b>2019</b> , 99,	3-3	58
45	Ballistic thermal transport in black and blue phosphorene nanoribbons and in-plane heterostructures. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2019</b> , 383, 1493-1497 <sup>2-3</sup>		3

44	The thermoelectric properties of monolayer SiP and GeP from first-principles calculations. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 185106	2.5	8
43	Allotropes of Phosphorus with Remarkable Stability and Intrinsic Piezoelectricity. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	12
42	Enhancing the thermoelectric performance of gamma-graphyne nanoribbons by introducing edge disorder. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 7173-7179	3.6	10
41	Methodology Perspective of Computing Thermal Transport in Low-Dimensional Materials and Nanostructures: The Old and the New. <i>ACS Omega</i> , <b>2018</b> , 3, 3278-3284	3.9	8
40	Thermoelectric properties of graphene nanoribbons with surface roughness. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 233107	3.4	12
39	Doping Induced Abnormal Contraction and Significant Reduction of Lattice Thermal Conductivity of Open Framework Si <sub>24</sub> . <i>ES Energy &amp; Environments</i> , <b>2018</b> ,	2.9	3
38	Thermal and thermoelectric properties of monolayer indium triphosphide (InP <sub>3</sub> ): a first-principles study. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 21532-21541	13	58
37	The thermoelectric performance of dumbbell silicene nanoribbons. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , <b>2018</b> , 26, 511-517	1.8	1
36	Thermoelectric properties of four typical silicon allotropes. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2018</b> , 26, 085006	2	4
35	Complex Low Energy Tetrahedral Polymorphs of Group IV Elements from First Principles. <i>Physical Review Letters</i> , <b>2018</b> , 121, 175701	7.4	54
34	First-principles prediction of a low energy edge-reconstruction for zigzag phosphorene nanoribbons. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 065304	3	4
33	Ab initio prediction of a new allotrope of two-dimensional silicon. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2017</b> , 11, 1600422	2.5	8
32	Five low energy phosphorene allotropes constructed through gene segments recombination. <i>Scientific Reports</i> , <b>2017</b> , 7, 46431	4.9	25
31	Lattice thermal conductivity of borophene from first principle calculation. <i>Scientific Reports</i> , <b>2017</b> , 7, 45986	4.9	43
30	Optimizing the thermoelectric performance of graphyne nanotube via applying radial strain. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 125112	2.5	5
29	First-principles study of thermal transport in nitrogenated holey graphene. <i>Nanotechnology</i> , <b>2017</b> , 28, 045709	3.4	23
28	Effect of hydrogen passivation on the decoupling of graphene on SiC(0001) substrate: First-principles calculations. <i>Scientific Reports</i> , <b>2017</b> , 7, 8461	4.9	4
27	Potential thermoelectric material open framework Si <sub>24</sub> from a first-principles study. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 425501	3	11

26	Ballistic thermoelectric properties of nitrogenated holey graphene nanostructures. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 174302	2.5	7
25	Large tunability of lattice thermal conductivity of monolayer silicene via mechanical strain. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	132
24	Anisotropic thermal transport in Weyl semimetal TaAs: a first principles calculation. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 16709-14	3.6	26
23	Thermoelectric properties of gamma-graphyne nanoribbon incorporating diamond-like quantum dots. <i>Journal Physics D: Applied Physics</i> , <b>2016</b> , 49, 135303	3	4
22	First-principles study on lattice thermal conductivity of thermoelectrics HgTe in different phases. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 245101	2.5	13
21	Enhancement of thermoelectric properties of gamma-graphyne nanoribbons with edge modulation. <i>European Physical Journal B</i> , <b>2015</b> , 88, 1	1.2	4
20	Competing mechanism driving diverse pressure dependence of thermal conductivity of XTe (X=Hg,Cd, and Zn). <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	51
19	Diameter Dependence of Lattice Thermal Conductivity of Single-Walled Carbon Nanotubes: Study from Ab Initio. <i>Scientific Reports</i> , <b>2015</b> , 5, 15440	4.9	27
18	Thermal conductivity of ordered-disordered material: a case study of superionic Ag <sub>2</sub> Te. <i>Nanotechnology</i> , <b>2015</b> , 26, 025702	3.4	23
17	Tuning thermal conductance in the twisted graphene and gamma graphyne nanoribbons. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 154313	2.5	20
16	Thermal transport and thermoelectric properties of beta-graphyne nanostructures. <i>Nanotechnology</i> , <b>2014</b> , 25, 245401	3.4	45
15	Seebeck effects in a graphene nanoribbon coupled to two ferromagnetic leads. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 114305	2.5	12
14	Thermoelectric properties of gamma-graphyne nanoribbons and nanojunctions. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 073710	2.5	41
13	Thermal transport properties of rolled graphene nanoribbons. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 071908	3.4	10
12	The modification of central B/N atom chain on electron transport of graphene nanoribbons. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 113713	2.5	1
11	Thermal transport in graphyne nanoribbons. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	95
10	Resonant splitting in periodic T-shaped photonic waveguides. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 033523	3.3	1
9	Continuously Tunable Thermal Conductance in Arched Graphene Nanoribbons. <i>Applied Physics Express</i> , <b>2012</b> , 5, 125103	2.4	2

8	Effect of triangle vacancy on thermal transport in boron nitride nanoribbons. <i>Solid State Communications</i> , <b>2011</b> , 151, 460-464	1.6	25
7	Thermal conductance modulator based on folded graphene nanoribbons. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 233101	3.4	45
6	Ballistic thermal rectification in asymmetric three-terminal graphene nanojunctions. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	52
5	Thermal transport in hexagonal boron nitride nanoribbons. <i>Nanotechnology</i> , <b>2010</b> , 21, 245701	3.4	140
4	Resonant splitting of phonon transport in periodic T-shaped graphene nanoribbons. <i>Europhysics Letters</i> , <b>2010</b> , 91, 46006	1.6	9
3	Electronic properties of disordered bilayer graphene. <i>Solid State Communications</i> , <b>2010</b> , 150, 2366-2369	1.6	9
2	Thermal transport of isotopic-superlattice graphene nanoribbons with zigzag edge. <i>Europhysics Letters</i> , <b>2009</b> , 88, 28002	1.6	70
1	Sn <sub>2</sub> Te/TeIn <sub>2</sub> Se: a type-II heterojunction as a water-splitting photocatalyst with high solar energy harvesting. <i>Journal of Materials Chemistry C</i> ,	7.1	1