Katsunori Wakabayashi

List of Publications by Year
in descending order

151 papers	9,150 citations	117453 34 h-index	39575 94 g-index
156 all docs	156 docs citations	156 times ranked	7354 citing authors

#	Article	IF	Citations
1	Nonlinear optical Hall effect of few-layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NbSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review Research, 2022, 4, .	1.3	3
2	Fullerene Nanostructure-Coated Channels Activated by Electron Beam Lithography for Resistance Switching. ACS Applied Nano Materials, 2022, 5, 6430-6437.	2.4	3
3	Theory of Pressure-Induced Rejuvenation and Strain Hardening in Metallic Glasses. Physical Review Letters, 2021, 126, 025502.	2.9	28
4	Optically induced spin current in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NbSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review B, 2021, 103, .	1.1	7
5	Higher-order topology and fractional charge in monolayer graphene. Physical Review Research, 2021, 3, .	1.3	27
6	Valley-dependent corner states in honeycomb photonic crystals without inversion symmetry. Optics Express, 2021, 29, 18277.	1.7	24
7	Thickness-dependent Raman active modes of SnS thin films. AIP Advances, 2021, 11, .	0.6	4
8	Observation of a flat band and bandgap in millimeter-scale twisted bilayer graphene. Communications Materials, 2021, 2, .	2.9	15
9	Effects of Midâ€Infrared Graphene Plasmons on Photothermal Heating. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900656.	1.2	2
10	Theoretical and Experimental Study of Compression Effects on Structural Relaxation of Glass-Forming Liquids. ACS Omega, 2020, 5, 11035-11042.	1.6	10
11	Cooperative nanoparticle self-assembly and photothermal heating in a flexible plasmonic metamaterial. RSC Advances, 2020, 10, 41830-41836.	1.7	7
12	Enhanced solar photothermal effect of PANi fabrics with plasmonic nanostructures. RSC Advances, 2020, 10, 28447-28453.	1.7	11
13	Coupling between structural relaxation and diffusion in glass-forming liquids under pressure variation. Physical Chemistry Chemical Physics, 2020, 22, 24365-24371.	1.3	5
14	Ab-initio investigation of preferential triangular self-formation of oxide heterostructures of monolayer $$hbox {WSe}_{2}$$. Scientific Reports, 2020, 10, 21737.	1.6	1
15	Purely in-plane ferroelectricity in monolayer SnS at room temperature. Nature Communications, 2020, 11, 2428.	5.8	214
16	Structural relaxation time and dynamic shear modulus of glassy graphene. Journal of Non-Crystalline Solids, 2020, 538, 120024.	1.5	4
17	Momentum-selective optical absorption in triptycene molecular membrane. Physical Review B, 2020, 101, .	1.1	2
18	Theory of Structural and Secondary Relaxation in Amorphous Drugs under Compression. Pharmaceutics, 2020, 12, 177.	2.0	10

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19	Deep Learning for the Inverse Design of Mid-Infrared Graphene Plasmons. Crystals, 2020, 10, 125.	1.0	10
20	Molecular relaxations in supercooled liquid and glassy states of amorphous gambogic acid: Dielectric spectroscopy, calorimetry, and theoretical approach. AIP Advances, 2020, 10, .	0.6	13
21	Confinement effects on the solar thermal heating process of TiN nanoparticle solutions. Physical Chemistry Chemical Physics, 2019, 21, 19915-19920.	1.3	13
22	Topological edge states in the Su-Schrieffer-Heeger model. Physical Review B, 2019, 100, .	1.1	86
23	Theoretical Model for the Structural Relaxation Time in Coamorphous Drugs. Molecular Pharmaceutics, 2019, 16, 2992-2998.	2.3	27
24	Photonic Weyl semimetals in two-dimensional dielectric arrays. Japanese Journal of Applied Physics, 2019, 58, SDDD01.	0.8	2
25	Helical Topological Edge States in a Quadrupole Phase. Physical Review Letters, 2019, 122, 086804.	2.9	133
26	Topological edge states induced by the Zak phase in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">A</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">B</mml:mi></mml:mrow></mml:math> monolayers. Physical Review B, 2019, 99, .	1.1	12
27	Effects of cooling rate on structural relaxation in amorphous drugs: elastically collective nonlinear langevin equation theory and machine learning study. RSC Advances, 2019, 9, 40214-40221.	1.7	20
28	Photonic crystal nanocavity based on a topological corner state. Optica, 2019, 6, 786.	4.8	274
29	Nanocavity based on a topological corner state in a two-dimensional photonic crystal. , 2019, , .		2
30	Topological photonic crystals with zero Berry curvature. Physical Review B, 2018, 97, .	1.1	94
31	Electronic Structure of Two-Dimensional Hydrocarbon Networks of sp2 and sp3 C Atoms. Journal of the Physical Society of Japan, 2018, 87, 034704.	0.7	8
32	Layer-by-Layer Oxidation Induced Electronic Properties in Transition-Metal Dichalcogenides. Journal of Physical Chemistry C, 2018, 122, 17001-17007.	1.5	12
33	Multilayered Plasmonic Nanostructures for Solar Energy Harvesting. Journal of Physical Chemistry C, 2018, 122, 19801-19806.	1.5	14
34	Novel Topological Phase with a Zero Berry Curvature. Physical Review Letters, 2017, 118, 076803.	2.9	288
35	Thermal Hall conductivity in the spin-triplet superconductor with broken time-reversal symmetry. Physical Review B, 2017, 95, .	1.1	2
36	Thermal Hall conductivity of spin-triplet superconductor with time reversal symmetry breaking. Journal of Physics: Conference Series, 2017, 807, 102006.	0.3	0

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37	Universal self-amplification channel for surface plasma waves. Physical Review B, 2017, 95, .	1.1	9
38	Topological Edge States of Honeycomb Lattices with Zero Berry Curvature. Journal of the Physical Society of Japan, 2017, 86, 123707.	0.7	38
39	Optical excitation of surface plasma waves without grating structures. Europhysics Letters, 2016, 114, 35002.	0.7	2
40	Thermal Hall conductivity and topological transition in a chiral<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math>-wave superconductor for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sr</mml:mi><mml:mn>2</mml:mn></mml:r Physical Review B, 2016, 93, .	1.1	13
41	Thermal Hall Conductivity in a Multiband Chiral p-Wave Superconductor. Journal of the Physical Society of Japan, 2016, 85, 115002.	0.7	0
42	Numerical study of carbon nanotubes under circularly polarized irradiation. Applied Physics Express, 2016, 9, 085101.	1.1	3
43	Retardation effects on plasma waves in graphene, topological insulators, and quantum wires. Physical Review B, 2015, 92, .	1.1	10
44	Momentum shift of Dirac cones in the silicene-intercalated compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>CaSi</mml:mtext><mml:mn>2</mml:mn></mml:msub Physical Review B, 2015, 91, .	1.1	20
45	Properties of boiled sea cucumber products with abnormally tender textures. Nippon Suisan Gakkaishi, 2015, 81, 849-851.	0.0	0
46	Self-assembled honeycomb lattice in the monolayer of cyclic thiazyl diradical BDTDA (=â€‰4,4â€²-bis(1,2,3,5-dithiadiazolyl)) on Cu(111) with a zero-bias tunneling spectra anomaly. Scientific Reports, 2015, 5, 18359.	1.6	4
47	Effect of Lishitz Transition on Thermal Transport Properties in Sr2RuO4. Physics Procedia, 2015, 75, 150-157.	1.2	1
48	Topological aspect and transport property in multi-band spin-triplet chiralp-wave superconductor Sr₂RuO₄. Journal of Physics: Conference Series, 2015, 592, 012132.	0.3	0
49	Self-Limiting Layer-by-Layer Oxidation of Atomically Thin WSe₂. Nano Letters, 2015, 15, 2067-2073.	4.5	204
50	Vacancy effects on electronic and transport properties of graphene nanoribbons. Physical Review B, 2015, 91, .	1.1	21
51	Magnetization due to localized states on graphene grain boundary. Scientific Reports, 2015, 5, 11744.	1.6	28
52	Nanoporous Carbon Tubes from Fullerene Crystals as the Ï€â€Electron Carbon Source. Angewandte Chemie - International Edition, 2015, 54, 951-955.	7.2	116
53	Effect of the RuO₆ Octahedron Rotation at the Sr₂RuO₄ Surface on Topological Property. Journal of the Physical Society of Japan, 2014, 83, 124712.	0.7	7
54	Stacking sequence dependence of electronic properties in double-layer graphene heterostructures. Japanese Journal of Applied Physics, 2014, 53, 06JD03.	0.8	4

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55	Spin and charge excitations in zigzag honeycomb nanoribbons: Effect of many body correlation. Japanese Journal of Applied Physics, 2014, 53, 06JD01.	0.8	6
56	Theory of carrier transport in graphene double-layer structure with carrier imbalance. Japanese Journal of Applied Physics, 2014, 53, 06JD07.	0.8	6
57	Formation mechanism of bound states in graphene point contacts. Physical Review B, 2014, 89, .	1.1	7
58	Edge effect on a vacancy state in semi-infinite graphene. Physical Review B, 2014, 90, .	1.1	19
59	Decomposition into propagating and evanescent modes of graphene ribbons. Physical Review B, 2014, 90, .	1.1	9
60	Strong Enhancement of Raman Scattering from a Bulk-Inactive Vibrational Mode in Few-Layer MoTe₂. ACS Nano, 2014, 8, 3895-3903.	7.3	275
61	Topological Aspect and Magnetic Property of a Chiral p-Wave Superconductor. , 2014, , .		0
62	Thickness-Dependent Interfacial Coulomb Scattering in Atomically Thin Field-Effect Transistors. Nano Letters, 2013, 13, 3546-3552.	4.5	285
63	Topological and edge state properties of a three-band model for Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>RuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 88, .	1.1	34
64	Topological aspects and transport properties of edge states in the multi-band superconductor Sr2RuO4. Journal of the Korean Physical Society, 2013, 63, 470-474.	0.3	0
65	Dielectric environment effect on carrier mobility of graphene double-layer structure. Applied Physics Letters, 2013, 103, .	1.5	18
66	Edge state induced metallicity in zigzag BC3 ribbons. Journal of Materials Chemistry C, 2013, 1, 4854.	2.7	8
67	Interacting spins and holes in zigzag edge nanographene. , 2013, , .		1
68	Mode-Matching Approach to Current Blocking Effect in Graphene Nanoribbons. Journal of the Physical Society of Japan, 2013, 82, 104707.	0.7	8
69	Experimental Approaches to Graphene Electron Transport for Device Applications. , 2013, , 105-222.		0
70	Electronic transport of graphene nanoribbons: Effect of edges and geometry. , 2012, , .		1
71	ELECTRONIC STATES AND LOCAL DENSITY OF STATES NEAR GRAPHENE CORNER EDGE. International Journal of Modern Physics Conference Series, 2012, 11, 151-156.	0.7	2
72	Magnetism of Multi-Orbital Edge States in Sr₂RuO₄. Journal of Physics: Conference Series, 2012, 400, 042020.	0.3	0

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73	Edge States and Stacking Effects in Nanographene Systems. Journal of Superconductivity and Novel Magnetism, 2012, 25, 2723-2725.	0.8	1
74	Anomalous energy-gap behaviour of armchair BC3 ribbons due to enhanced ï€-conjugation. Journal of Materials Chemistry, 2012, 22, 20881.	6.7	10
75	Magnetic response of conductance peak structure in junction-confined graphenenanoribbons. Nanoscale, 2012, 4, 1138-1145.	2.8	1
76	Tuning Charge and Spin Excitations in Zigzag Edge Nanographene Ribbons. Scientific Reports, 2012, 2, 519.	1.6	46
77	Properties of edge states in a spin-triplet two-band superconductor. Physical Review B, 2012, 85, .	1.1	45
78	Nanoscale and edge effect on electronic properties of graphene. Solid State Communications, 2012, 152, 1420-1430.	0.9	63
79	A single particle Hamiltonian for electro-magnetic properties of graphene nanoribbons. Carbon, 2012, 50, 3454-3458.	5.4	3
80	ELECTRONIC STATES AND LOCAL DENSITY OF STATES NEAR GRAPHENE CORNER EDGE. , 2012, , .		0
81	Electron Wave Function in Armchair Graphene Nanoribbons. Journal of the Physical Society of Japan, 2011, 80, 044710.	0.7	26
82	Tight-Binding Approach to Initial Stage of the Graphitization Process on a Vicinal SiC Surface. Japanese Journal of Applied Physics, 2011, 50, 038003.	0.8	6
83	Electronic Properties of Graphene Nanoribbons. Nanoscience and Technology, 2011, , 277-299.	1.5	4
84	Electronic and Transport Properties of Graphene Nanoribbons. , 2011, , 167-178.		1
85	Electronic States and Local Density of States in Graphene with a Corner Edge Structure. Journal of the Physical Society of Japan, 2011, 80, 054710.	0.7	30
86	Polarization dependence of Raman spectra in strained graphene. Physical Review B, 2010, 82, .	1.1	14
87	Identifying the Orientation of Edge of Graphene Using G Band Raman Spectra. Journal of the Physical Society of Japan, 2010, 79, 044603.	0.7	43
88	Electronic states of graphene nanoribbons and analytical solutions. Science and Technology of Advanced Materials, 2010, 11, 054504.	2.8	336
89	Electronic transport properties and perfectly conducting channel of the disordered graphene nanoribbons. , 2010, , .		0
90	Chiral gauge theory for the graphene edge. Physical Review B, 2010, 82, .	1.1	21

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91	Edge States and Flat Bands of Graphene Nanoribbons with Edge Modification. Journal of the Physical Society of Japan, 2010, 79, 034706.	0.7	49
92	Soliton trap in strained graphene nanoribbons. New Journal of Physics, 2010, 12, 103015.	1.2	18
93	Berry's phase for standing waves near graphene edge. New Journal of Physics, 2010, 12, 083023.	1.2	20
94	Physical properties of nano-graphene. Tanso, 2010, 2010, 116-120.	0.1	1
95	Nearly perfect single-channel conduction in disordered armchair nanoribbons. Physical Review B, 2009, 79, .	1.1	29
96	Kohn anomalies in graphene nanoribbons. Physical Review B, 2009, 80, .	1.1	44
97	Hamiltonian Decomposition for Bulk and Surface States. Physical Review Letters, 2009, 102, 146806.	2.9	13
98	Edge effect on electronic transport properties of graphene nanoribbons and presence of perfectly conducting channel. Carbon, 2009, 47, 124-137.	5.4	89
99	Electronic transport properties of graphene nanoribbons. New Journal of Physics, 2009, 11, 095016.	1.2	175
100	Control of electric current by graphene edge structure engineering. Applied Physics Letters, 2009, 95, 082109.	1.5	20
101	Electronic transport properties of disordered graphene nanoribbons. Journal of Physics: Conference Series, 2009, 150, 022097.	0.3	0
102	Conductance Distribution in Disordered Quantum Wires with a Perfectly Conducting Channel. Journal of the Physical Society of Japan, 2009, 78, 034717.	0.7	4
103	Peculiar electronic transport properties of disordered nanographene ribbons. Journal of Physics and Chemistry of Solids, 2008, 69, 1162-1164.	1.9	3
104	Conductance Fluctuations in Disordered Wires with Perfectly Conducting Channels. Journal of the Physical Society of Japan, 2008, 77, 054702.	0.7	6
105	Enhanced Conductance Fluctuation due to the Zero-Conductance Fano Resonances in the Quantum Point Contact on Graphene. Journal of the Physical Society of Japan, 2008, 77, 113708.	0.7	7
106	Conductance of Disordered Wires with Symplectic Symmetry :Random-matrix Approach and Numerical Simulation. AIP Conference Proceedings, 2007, , .	0.3	1
107	Distribution of Transmission Eigenvalues in Disordered Wires with Symplectic Symmetry. Journal of the Physical Society of Japan, 2007, 76, 034717.	0.7	6
108	Conductance of Disordered Wires with Unitary Symmetry: Role of Perfectly Conducting Channels. Journal of the Physical Society of Japan, 2007, 76, 053701.	0.7	15

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109	Perfectly Conducting Channel and Universality Crossover in Disordered Graphene Nanoribbons. Physical Review Letters, 2007, 99, 036601.	2.9	191
110	Superconductivity in non-centrosymmetric materials. Journal of Magnetism and Magnetic Materials, 2007, 310, 536-540.	1.0	59
111	Spin and Charge Transport Properties in Quasi-One Dimensional Anomalous Hall System. AIP Conference Proceedings, 2007, , .	0.3	2
112	Low-Energy Physical Properties of Edge States in Nanographite Systems. Springer Series in Solid-state Sciences, 2007, , 103-149.	0.3	0
113	Averaged Conductance of the Three-Edge Chalkerâ€“Coddington Model. Journal of the Physical Society of Japan, 2007, 76, 083710.	0.7	7
114	Temperature dependence of the superfluid density in a noncentrosymmetric superconductor. Physical Review B, 2006, 73, .	1.1	89
115	Nuclear magnetic relaxation rate in a noncentrosymmetric superconductor. Physical Review B, 2006, 73, .	1.1	93
116	Spatially resolved NMR relaxation rate in a noncentrosymmetric superconductor. Physica B: Condensed Matter, 2006, 378-380, 388-390.	1.3	2
117	Basic properties of a vortex in a noncentrosymmetric superconductor. Physica C: Superconductivity and Its Applications, 2006, 437-438, 96-99.	0.6	15
118	Unconventional superconductivity in non-centrosymmetric materials. AIP Conference Proceedings, 2006, , .	0.3	3
119	Enhanced coherence of antinodal quasiparticles in a dirtyd-wave superconductor. Physical Review B, 2005, 72, .	1.1	3
120	Effect of spin-orbit coupling on zero-conductance resonances in asymmetrically coupled one-dimensional rings. Physical Review B, 2005, 72, .	1.1	54
121	Theoretical investigation on electronic properties of topological materials: MÃ¶bius nanographite and conjugated polymers. Synthetic Metals, 2005, 152, 261-264.	2.1	8
122	Magnetic vs. charge ordered states, and electric capacitance in zigzag nanographite ribbons. Synthetic Metals, 2005, 152, 317-320.	2.1	3
123	Theoretical study on novel electronic properties in nanographite materials. Journal of Physics and Chemistry of Solids, 2004, 65, 123-126.	1.9	7
124	Electronic states and persistent current of nanographite ring. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 684-687.	1.3	10
125	Novel electronic states in graphene ribbonsâ€”competing spin and charge orders. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 688-691.	1.3	23
126	Magnetic and charge orders in zigzag nanographene ribbons. Current Applied Physics, 2004, 4, 587-590.	1.1	2

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127	DC Josephson current through the nanographite ribbon junctions. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 229-230.	1.3	0
128	Spin- and charge-polarized states in nanographene ribbons with zigzag edges. Physical Review B, 2003, 68, .	1.1	139
129	Magnetic Structure of Nano-Graphite MÃ¶bius Ribbon. Journal of the Physical Society of Japan, 2003, 72, 998-1001.	0.7	66
130	DC Josephson Current through Nano-Graphite Ribbons. Journal of the Physical Society of Japan, 2003, 72, 1010-1013.	0.7	12
131	Random-Matrix Approach to Quantum Electron Transport in Metallic Carbon Nanotubes. Journal of the Physical Society of Japan, 2003, 72, 2710-2713.	0.7	23
132	ELECTRICAL CONDUCTANCE OF ZIGZAG NANOGRAPHITE RIBBONS WITH LOCALLY APPLIED GATE VOLTAGE. International Journal of Modern Physics B, 2002, 16, 4897-4909.	1.0	72
133	Numerical Study of the Lattice Vacancy Effects on the Single-Channel Electron Transport of Graphite Ribbons. Journal of the Physical Society of Japan, 2002, 71, 2500-2504.	0.7	57
134	Single-channel electronic transport properties of nano-graphite ribbons. Synthetic Metals, 2001, 121, 1231-1232.	2.1	2
135	Electronic transport properties of nanographite ribbon junctions. Physical Review B, 2001, 64, .	1.1	260
136	Phase Slip in Mesoscopic Charge-Density-Wave Systems. Journal of the Physical Society of Japan, 2001, 70, 1869-1872.	0.7	8
137	Instabilities at [110] surfaces of d x 2 â^' y 2 superconductors. Europhysics Letters, 2000, 50, 368-374.	0.7	34
138	Magnetic instability at the surface of a d-wave superconductor. Physica B: Condensed Matter, 2000, 281-282, 888-889.	1.3	1
139	Magnetic properties of nano-graphites at low temperature. Physica B: Condensed Matter, 2000, 280, 388-389.	1.3	23
140	Electronic transport through nanographite ribbon junctions. Physica B: Condensed Matter, 2000, 284-288, 1750-1751.	1.3	1
141	Zero-Conductance Resonances due to Flux States in Nanographite Ribbon Junctions. Physical Review Letters, 2000, 84, 3390-3393.	2.9	181
142	Magnetic and Transport Properties of Nanographites. Molecular Crystals and Liquid Crystals, 2000, 340, 7-12.	0.3	0
143	Electronic Structure and Surface-Localized State of Hyper-Graphite Network. Synthetic Metals, 1999, 103, 2574-2575.	2.1	7
144	Electronic and magnetic properties of nanographite ribbons. Physical Review B, 1999, 59, 8271-8282.	1.1	1,131

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145	Magnetic field effect on graphite ribbons. Journal of Magnetism and Magnetic Materials, 1998, 177-181, 1484-1485.	1.0	0
146	Spin Wave Mode of Edge-Localized Magnetic States in Nanographite Zigzag Ribbons. Journal of the Physical Society of Japan, 1998, 67, 2089-2093.	0.7	222
147	Topological Defect and Edge in Graphite. Nanometer Effect on .PI. Electron System.. Hyomen Kagaku, 1998, 19, 35-42.	0.0	2
148	Magnetism of Nanometer-Scale Graphite with Edge or Topological Defects. Molecular Crystals and Liquid Crystals, 1997, 305, 445-454.	0.3	24
149	Peculiar Localized State at Zigzag Graphite Edge. Journal of the Physical Society of Japan, 1996, 65, 1920-1923.	0.7	2,569
150	Magnetic structure of graphite ribbon. European Physical Journal D, 1996, 46, 1865-1866.	0.4	16
151	Localized electronic states on graphite edge. European Physical Journal D, 1996, 46, 2429-2430.	0.4	15