Nobuhiko Kobayashi

List of Publications by Year
in descending order

117	1,851	279798 23	302126 39
papers	citations	h-index	g-index

117	117	117	1855
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Direct One-Neutron Knockout Reaction Reveals a Small <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>s</mml:mi></mml:math> -Orbital Component in the Borromean Nucleus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">B</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>19</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2021, 126, 252501.	7.8	42
2	Electronic and lattice properties of nanostructured TiN/MgO and ScN/MgO superlattices. Japanese Journal of Applied Physics, 2021, 60, SE1006.	1.5	1
3	Gate induced modulation of electronic states in monolayer organic field-effect transistor. Applied Physics Letters, 2021, 119, 223301.	3.3	0
4	Surface Localization of the Dineutron in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Li</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>11</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2020, 125, 252501.	7.8	36
5	Integrin Î±7 and Extracellular Matrix Laminin 211 Interaction Promotes Proliferation of Acute Myeloid Leukemia Cells and Is Associated with Granulocytic Sarcoma. Cancers, 2020, 12, 363.	3.7	13
6	Charge mobility calculation of organic semiconductors without use of experimental single-crystal data. Scientific Reports, 2020, 10, 2524.	3.3	13
7	Magnetic Dipole Strength Distribution around the Doubly Magic Nucleus Â <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Sn</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>132</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> and the Position of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"	7.8	12
8	Sub-molecular structural relaxation at a physisorbed interface with monolayer organic single-crystal semiconductors. Communications Physics, 2020, 3, .	5.3	10
9	SAKE: first-principles electron transport calculation code. Journal of Physics Condensed Matter, 2020, 32, 325901.	1.8	3
10	Second highest occupied molecular orbital effects on the valence band structure of organic semiconductors. Japanese Journal of Applied Physics, 2019, 58, SIIB27.	1.5	9
11	Seebeck coefficients in CuFeS2thin films by first-principles calculations. Japanese Journal of Applied Physics, 2019, 58, SIIB01.	1.5	3
12	Electronic band structure of TiN/MgO-4 Ã— 4 and 5 Ã— 5 nanostructures. Japanese Journal of Applied Physics, 2019, 58, SBBH06.	1.5	1
13	Magnetism-mediated thermoelectric performance of the Cr-doped bismuth telluride tetradymite. Materials Today Physics, 2019, 9, 100090.	6.0	112
14	Carrier transport calculations of organic semiconductors with static and dynamic disorder. Japanese Journal of Applied Physics, 2019, 58, 110501.	1.5	6
15	Field emission from vertically-aligned graphene edges on graphitized pencil lead. , 2018, , .		0
16	Origin of the FEM pattern from C<inf>60</inf> molecules adsorbed on tungsten tips. , 2018, , .		0
17	Quantitative mobility evaluation of organic semiconductors using quantum dynamics based on density functional theory. Physical Review B, 2018, 98, .	3.2	14
18	Extraction of the Landau-Migdal Parameter from the Gamow-Teller Giant Resonance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Sn</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>132</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review Letters, 2018, 121, 132501.	7.8	41

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19	Surface Structure of Organic Semiconductor [n]Phenacene Single Crystals. Journal of the American Chemical Society, 2018, 140, 14046-14049.	13.7	5
20	Operando Direct Observation of Charge Accumulation and the Correlation with Performance Deterioration in PTB7 Polymer Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 26434-26442.	8.0	23
21	Theory of electron transport at the atomistic level. Japanese Journal of Applied Physics, 2018, 57, 08NA01.	1.5	0
22	Computational Study on Atomic Structures, Electronic Properties, and Chemical Reactions at Surfaces and Interfaces and in Biomaterials. Journal of the Physical Society of Japan, 2018, 87, 061013.	1.6	2
23	First-principles calculations of Seebeck coefficients in a magnetic semiconductor CuFeS2. Applied Physics Letters, 2017, 110, .	3.3	34
24	Charge transport calculations by a wave-packet dynamical approach using maximally localized Wannier functions based on density functional theory: Application to high-mobility organic semiconductors. Physical Review B, 2017, 95, .	3.2	16
25	Enhancement of Thermoelectric Properties in Surface Nanostructures. Journal of Electronic Materials, 2017, 46, 5593-5598.	2.2	6
26	Thermoelectric properties of a magnetic semiconductor CuFeS2. Materials Today Physics, 2017, 3, 85-92.	6.0	59
27	Electronic band structure of TiN/MgO nanostructures. Japanese Journal of Applied Physics, 2017, 56, 04CK06.	1.5	3
28	The emergence of charge coherence in soft molecular organic semiconductors via the suppression of thermal fluctuations. NPG Asia Materials, 2016, 8, e252-e252.	7.9	19
29	First-principles calculations of thermoelectric properties of TiN/MgO superlattices: The route for an enhancement of thermoelectric effects in artificial nanostructures. Journal of Applied Physics, 2016, 119, .	2.5	16
30	Confinement of the Pt(111) Surface State in Graphene Nanoislands. Journal of Physical Chemistry C, 2016, 120, 345-349.	3.1	9
31	Electronic Band Structure of Various TiN/MgO Superlattices. , 2015, , .		2
32	Wave Packet Dynamical Calculations for Charge Transport of Organic Semiconductors: Role of Molecular Vibrations and Trap Potentials. Molecular Crystals and Liquid Crystals, 2015, 620, 2-9.	0.9	1
33	Correlation between thermal fluctuation effects and phase coherence factor in carrier transport of single-crystal organic semiconductors. Applied Physics Letters, 2015, 106, .	3.3	14
34	First-Principles Study of TiN/MgO Interfaces. E-Journal of Surface Science and Nanotechnology, 2014, 12, 230-237.	0.4	7
35	Efficient Ab-Initio Electron Transport Calculations for Heterostructures by the Nonequilibrium Greenâ€™s Function Method. Journal of Nanomaterials, 2014, 2014, 1-5.	2.7	6
36	Large-scale conductivity-tensor calculations for Hall effects in time-dependent wave-packet diffusion method. Physical Review B, 2014, 90, .	3.2	9

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37	Electric and Thermal Transport Calculations through Interface and Applications to Thermoelectric Energy Conversion. E-Journal of Surface Science and Nanotechnology, 2014, 12, 115-118.	0.4	4
38	Atomistic Calculations of Heat Transport in a Silicon Crystal. E-Journal of Surface Science and Nanotechnology, 2014, 12, 154-156.	0.4	0
39	Thermal conductance calculations of silicon nanowires: comparison with diamond nanowires. Nanoscale Research Letters, 2013, 8, 256.	5.7	2
40	Influence of strong electron-phonon coupling and dynamic lattice disorder on the Hall effect in organic crystals. Physical Review B, 2013, 87, .	3.2	5
41	On the Phononic Bandgap of Carbon Nanotubes. Journal of Nanomaterials, 2013, 2013, 1-4.	2.7	3
42	Strong anisotropy of momentum-relaxation time induced by intermolecular vibrations of single-crystal organic semiconductors. Physical Review B, 2013, 88, .	3.2	27
43	Wave-packet approach to transport properties of carrier coupled with intermolecular and intramolecular vibrations of organic semiconductors. Physical Review B, 2012, 85, .	3.2	48
44	Roles of intramolecular and intermolecular electron-phonon coupling on the formation and transport of large polarons in organic semiconductors. Physical Review B, 2012, 86, .	3.2	27
45	Bias drop and phonon emission in molecular wires. Applied Surface Science, 2012, 258, 2121-2123.	6.1	0
46	First-principles study of electron transport in Si atom wires under finite bias voltage. Applied Surface Science, 2012, 258, 1985-1990.	6.1	3
47	Hall conductivity calculations by the time-dependent wave-packet diffusion method. Physical Review B, 2011, 83, .	3.2	9
48	Effects of Vacancy Defects on Thermal Conduction of Silicon Nanowire: Nonequilibrium Green's Function Approach. Applied Physics Express, 2011, 4, 085001.	2.4	13
49	Quantum transport properties of zigzag graphene nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 43, 711-713.	2.7	7
50	Multi-Scale Quantum Transport Simulations from Atomistic Levels. Journal of the Vacuum Society of Japan, 2011, 54, 501-506.	0.3	0
51	Thermal Conduction Calculation of Nanowire by Non-equilibrium Green's Function. Hyomen Kagaku, 2011, 32, 410-415.	0.0	0
52	Inelastic Transport in Vibrating Disordered Carbon Nanotubes: Scattering Times and Temperature-Dependent Decoherence Effects. Physical Review Letters, 2010, 104, 116801.	7.8	55
53	Order-Nelectron transport calculations from ballistic to diffusive regimes by a time-dependent wave-packet diffusion method: Application to transport properties of carbon nanotubes. Physical Review B, 2010, 82, .	3.2	34
54	Edge-Phonon Scattering Effects on Electron Transport of Graphene Nanoribbons. Applied Physics Express, 2010, 3, 095102.	2.4	10

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55	The Edge Current on Zigzag Graphene Nanoribbons. Japanese Journal of Applied Physics, 2010, 49, 08LB04.	1.5	2
56	Theoretical Study of MoirÃ© Pattern in Scanning Tunneling Microscopy Images of Carbon Nanotubes on Metallic Substrate. Japanese Journal of Applied Physics, 2010, 49, 08LB02.	1.5	0
57	First-principles calculation of electron transport in Si atom wire. Journal of Vacuum Science & Technology B, 2009, 27, 810-812.	1.3	0
58	Quantum electron transport through carbon nanotubes with electron-phonon coupling. Journal of Vacuum Science & Technology B, 2009, 27, 882.	1.3	4
59	Charge transport in carbon nanotubes based materials: a Kuboâ€“Greenwood computational approach. Comptes Rendus Physique, 2009, 10, 283-296.	0.9	46
60	DFT Analysis of Quantum Transport in Si Atom Wire under Finite Bias Voltage. E-Journal of Surface Science and Nanotechnology, 2009, 7, 17-20.	0.4	0
61	Contact and phonon scattering effects on quantum transport properties of carbon-nanotube field-effect transistors. Applied Surface Science, 2008, 254, 7600-7603.	6.1	6
62	Effects of contacts to electrodes and phonon scattering on transport of carbon-nanotube devices. Journal of Physics: Conference Series, 2008, 100, 052062.	0.4	0
63	First-Principles Study of Atomic-Scale Contact Effects on the Anomalous Electric Transport Through Molecules. Journal of Physics: Conference Series, 2007, 61, 420-424.	0.4	1
64	Quantum transport properties of carbon nanotube field-effect transistors with electron-phonon coupling. Physical Review B, 2007, 76, .	3.2	14
65	Anisotropic Free-Electron-Like Dispersions and Standing Waves Realized in Self-Assembled Monolayers of Glycine on Cu(100). Journal of the American Chemical Society, 2007, 129, 740-741.	13.7	23
66	Effects of atomic-scale contacts on transport properties through single molecules â€“ ab initio study. Surface Science, 2007, 601, 4113-4116.	1.9	3
67	Length dependence of effect of electrode contact on transport properties of semiconducting carbon nanotubes. Surface Science, 2007, 601, 4131-4133.	1.9	1
68	Time-dependent wave-packet approach to the quantum transport of carbon nanotubes with vacancies. Surface Science, 2007, 601, 5266-5269.	1.9	2
69	Electronâ€“phonon coupling effect on quantum transport in carbon nanotubes using time-dependent wave-packet approach. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 249-252.	2.7	17
70	Ab initio RTM/NEGF study on electron transport through single molecules. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 237-240.	2.7	4
71	Transport Properties through Single Molecules on the Semiconductor Electrodes â€” Ab initio Calculation Study. AIP Conference Proceedings, 2007, , .	0.4	0
72	Ab Initio Calculations of the Transport Through Single Molecules and Carbon Nanotubes. , 2007, , 429-432.		0

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73	First-principles calculation of spin transport in magnetic nanowire using Green's function method with localized basis set. Journal of Physics: Conference Series, 2006, 38, 95-98.	0.4	0
74	Ab initio calculation of contact effects on electron transport through single molecules by the RTM/NEGF method. Journal of Physics: Conference Series, 2006, 38, 65-68.	0.4	3
75	First-Principles Calculations of Quantum Transport in Single Molecule. Japanese Journal of Applied Physics, 2006, 45, 2151-2153.	1.5	8
76	Effects of Electrode Contact on Transport Properties of Carbon Nanotubes. , 2006, , .		0
77	Ab inito Calculation of Electron Transport Through Single Molecules by the RTM/NEGF Method. Materials Research Society Symposia Proceedings, 2006, 938, 1.	0.1	0
78	CONTACT EFFECTS ON TRANSPORT PROPERTIES OF SEMICONDUCTING CARBON NANOTUBES CONNECTED TO METALLIC ELECTRODES. Surface Review and Letters, 2006, 13, 309-311.	1.1	0
79	NONLINEAR BEHAVIOR OF QUANTUM TRANSPORT THROUGH NANOCONTACTS â€" AB INITIO CALCULATION STUDY. Surface Review and Letters, 2006, 13, 179-183.	1.1	0
80	Theory of Quantum Conductance of Atomic and Molecular Bridges. Journal of the Physical Society of Japan, 2005, 74, 1079-1092.	1.6	32
81	Theory for electron hopping through nanometer-scale contacts: From tunneling regime to ballistic regime. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 515-519.	2.7	1
82	First-principles calculations of contact effect on quantum transport in carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 551-554.	2.7	5
83	Ï€ Channel Effects in Transport Properties of Al Nanowires at Finite Biases. Japanese Journal of Applied Physics, 2005, 44, 6317-6320.	1.5	1
84	Effect of crystalline electrodes on the transport properties of Al monatomic wires at finite biases. Physical Review B, 2005, 72, .	3.2	5
85	Alkyl Chain Conformation and the Electronic Structure of Octyl Heavy Chalcogenolate Monolayers Adsorbed on Au(111). Langmuir, 2005, 21, 5026-5033.	3.5	23
86	Adsorption States of Dialkyl Ditelluride Autooxidized Monolayers on Au(111). Langmuir, 2005, 21, 3344-3353.	3.5	22
87	Ab initiocalculations for quantum transport through atomic bridges by the recursion transfer-matrix method. Physical Review B, 2004, 69, .	3.2	44
88	Ab initio calculations of quantum transport through Al atomic wire mixed with various atoms. Thin Solid Films, 2004, 464-465, 255-259.	1.8	1
89	First-principles calculation of field emission from adsorbed atom on metallic electrode. Applied Surface Science, 2004, 237, 572-575.	6.1	4
90	Theoretical investigation on electron transport through an organic molecule: Effect of the contact structure. Journal of Chemical Physics, 2004, 121, 6485-6492.	3.0	59

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91	Theoretical investigation of contact effects in conductance of single organic molecule. Thin Solid Films, 2003, 438-439, 221-224.	1.8	23
92	Ab initio calculations of transport properties of atomic bridges by the recursion-transfer-matrix method. Superlattices and Microstructures, 2003, 34, 443-449.	3.1	0
93	Effective Insulating Properties of Autooxidized Monolayers Using Organic Ditellurides. Journal of the American Chemical Society, 2002, 124, 12642-12643.	13.7	25
94	Structural stability and electronic states of gold nanowires. Surface Science, 2001, 482-485, 1266-1271.	1.9	11
95	High-field ESR study of kagome-like substance Cu3V2O7(OH)2Â·2H2O. Physica B: Condensed Matter, 2001, 294-295, 75-78.	2.7	19
96	Effect of the quantum domain wall on conductance quantization and magnetoresistance in magnetic point contacts. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 84, 107-113.	3.5	7
97	Conduction channels of Al wires at finite bias. Physical Review B, 2001, 64, .	3.2	58
98	Theory of Electronic and Atomic Processes in Scanning Probe Microscopy. , 2001, , 147-179.		0
99	Physics of artificial nano-structures on surfaces. Progress in Surface Science, 2000, 64, 139-155.	8.3	14
100	First-principles study of electron transport through monatomic Al and Na wires. Physical Review B, 2000, 62, 8430-8437.	3.2	113
101	Conductance Quantization and Magnetoresistance in Magnetic Point Contacts. Physical Review Letters, 2000, 84, 1003-1006.	7.8	116
102	Conductance through Atoms: Dot or Channel?. Japanese Journal of Applied Physics, 1999, 38, 336-338.	1.5	35
103	Numerical Method for Local Density of States and Current Density Decomposed into Eigenchannels in Multichannel System. Japanese Journal of Applied Physics, 1999, 38, 3805-3808.	1.5	21
104	Transmission channels through Na and Al atom wire. Surface Science, 1999, 433-435, 854-857.	1.9	39
105	Conduction channels at finite bias in single-atom gold contacts. Physical Review B, 1999, 60, 17064-17070.	3.2	143
106	Theory of electron transmission through atom bridges. Progress in Surface Science, 1998, 59, 245-254.	8.3	6
107	Theoretical Studies on Surface Electronics States. Atom Manipulation and Atomic Contact.. Hyomen Kagaku, 1998, 19, 161-166.	0.0	1
108	Theoretical Study of Silicon Adatom Transfer from the Silicon Surface in Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 1997, 36, 3791-3795.	1.5	10

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109	Two-dimensional angular correlation study of delocalized positronium in alkali halides. Journal of Physics Condensed Matter, 1997, 9, 11239-11246.	1.8	0
110	First-principles study of Na atom transfer induced by the tip of a STM. Surface Science, 1996, 348, 299-304.	1.9	12
111	Theoretical Study of Current and Barrier Height between Aluminum Tip and Silicon Surface in Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 1996, 35, 3710-3713.	1.5	18
112	Structural phase transitions at clean and metal-covered Si(111) surfaces investigated by RHEED spot analysis. Phase Transitions, 1995, 53, 87-114.	1.3	10
113	Theoretical bases of nano-scale devices. , 0, , .		1
114	Effects of Electrode Contact on Transport Properties of Carbon Nanotubes. , 0, , .		0
115	Time-Dependent Wave-Packet Diffusion Method for Quantum Transport Calculation: From Diffusive to Ballistic Regimes. Applied Physics Express, 0, 1, 123002.	2.4	20
116	Quantum Transport Calculations for Nanosystems. , 0, , .		23
117	First principles study of Fe₂VAl and Fe₂VAl/Si thin films and their magnetic properties. Japanese Journal of Applied Physics, 0, , .	1.5	1