Rai Moriya

List of Publications by Year
in descending order

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93	4,648	159585 30	95266 68
papers	citations	h-index	g-index

93	93	93	4320
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Switchable out-of-plane shift current in ferroelectric two-dimensional material CuInP2S6. Applied Physics Letters, 2022, 120, 013103.	3.3	6
2	Subband-resolved momentum-conserved resonant tunneling in monolayer graphene/h-BN/ABA-trilayer graphene small-twist-angle tunneling device. Applied Physics Letters, 2022, 120, 083102.	3.3	5
3	Defect-assisted tunneling spectroscopy of electronic band structure in twisted bilayer graphene/hexagonal boron nitride moirÃ© superlattices. Applied Physics Letters, 2022, 120, 203103.	3.3	1
4	Resonant Tunneling between Quantized Subbands in van der Waals Double Quantum Well Structure Based on Few-Layer WSe₂. Nano Letters, 2022, 22, 4640-4645.	9.1	7
5	Evaluation of polyvinyl chloride adhesion to 2D crystal flakes. Npj 2D Materials and Applications, 2022, 6, .	7.9	0
6	Resonant Tunneling Due to van der Waals Quantum-Well States of Few-Layer WSe₂ in WSe₂/h-BN/p⁺-MoS₂ Junction. Nano Letters, 2021, 21, 3929-3934.	9.1	16
7	Probing many-body interactions in the cyclotron resonance of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>h</mml:mi></mml:math> -BN/bilayer graphene/ <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>h</mml:mi></mml:math> -BN. Physical Review B, 2021, 104, .	3.2	0
8	Hexagonal Boron Nitride Synthesized at Atmospheric Pressure Using Metal Alloy Solvents: Evaluation as a Substrate for 2D Materials. Nano Letters, 2020, 20, 735-740.	9.1	16
9	Assembly of van der Waals heterostructures: exfoliation, searching, and stacking of 2D materials. Japanese Journal of Applied Physics, 2020, 59, 010101.	1.5	41
10	Low-temperature p-type ohmic contact to WSe2 using p+-MoS2/WSe2 van der Waals interface. Applied Physics Letters, 2020, 117, .	3.3	8
11	Emergence of orbital angular moment at van Hove singularity in graphene/h-BN moirÃ© superlattice. Nature Communications, 2020, 11, 5380.	12.8	15
12	Cyclotron Resonance Study of Monolayer Graphene under Double MoirÃ© Potentials. Nano Letters, 2020, 20, 4566-4572.	9.1	9
13	Carbon annealed HPHT-hexagonal boron nitride: Exploring defect levels using 2D materials combined through van der Waals interface. Carbon, 2020, 167, 785-791.	10.3	10
14	3D Manipulation of 2D Materials Using Microdome Polymer. Nano Letters, 2020, 20, 2486-2492.	9.1	38
15	Superconducting proximity effect in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Nb</mml:mi><mml:msub><mml:mi>Se</mml:mi><mml:mi><mml:mn> van der Waals junction. Physical Review B, 2020, 101, .	3.2	21
16	Selective etching of hexagonal boron nitride by high-pressure CF4 plasma for individual one-dimensional ohmic contacts to graphene layers. Applied Physics Letters, 2020, 117, .	3.3	4
17	Photo-Nernst detection of cyclotron resonance in partially irradiated graphene. Applied Physics Letters, 2019, 115, 153102.	3.3	5
18	Electrical Control of Cyclotron Resonance in Dual-Gated Trilayer Graphene. Nano Letters, 2019, 19, 8097-8102.	9.1	4

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19	Carbon-Rich Domain in Hexagonal Boron Nitride: Carrier Mobility Degradation and Anomalous Bending of the Landau Fan Diagram in Adjacent Graphene. Nano Letters, 2019, 19, 7282-7286.	9.1	15
20	Detection of cyclotron resonance using photo-induced thermionic emission at graphene/MoS2 van der Waals interface. Applied Physics Letters, 2019, 115, 143101.	3.3	1
21	Rhenium dinitride: Carrier transport in a novel transition metal dinitride layered crystal. APL Materials, 2019, 7, 101103.	5.1	7
22	Dry release transfer of graphene and few-layer h-BN by utilizing thermoplasticity of polypropylene carbonate. Npj 2D Materials and Applications, 2019, 3, .	7.9	60
23	Mid-infrared Photodetection Using Cyclotron Resonance in Graphene/h-BN van der Waals Heterostructures. Sensors and Materials, 2019, 31, 2281.	0.5	3
24	Photo-thermoelectric detection of cyclotron resonance in asymmetrically carrier-doped graphene two-terminal device. Applied Physics Letters, 2018, 113, .	3.3	10
25	Heat transfer at the van der Waals interface between graphene and NbSe2. Physical Review B, 2018, 98, .	3.2	3
26	Effect of a pick-and-drop process on optical properties of a CVD-grown monolayer tungsten disulfide. Physical Review Materials, 2018, 2, .	2.4	4
27	N- and p-type carrier injections into WSe₂with van der Waals contacts of two-dimensional materials. Japanese Journal of Applied Physics, 2017, 56, 04CK09.	1.5	31
28	Optical coupling between atomically thin black phosphorus and a two dimensional photonic crystal nanocavity. Applied Physics Letters, 2017, 110, .	3.3	13
29	Exfoliation and van der Waals heterostructure assembly of intercalated ferromagnet Cr _{1/3} TaS ₂. 2D Materials, 2017, 4, 041007.	4.4	41
30	Suppression of exciton-exciton annihilation in tungsten disulfide monolayers encapsulated by hexagonal boron nitrides. Physical Review B, 2017, 95, .	3.2	92
31	Spin injection into multilayer graphene from highly spin-polarized Co2FeSi Heusler alloy. Applied Physics Express, 2016, 9, 063006.	2.4	15
32	Supercurrent in van der Waals Josephson junction. Nature Communications, 2016, 7, 10616.	12.8	65
33	Spin Logic Devices. , 2016, , 764-779.		0
34	Edge-Channel Transport of Dirac Fermions in Graphene Quantum Hall Junctions. Journal of the Physical Society of Japan, 2015, 84, 121007.	1.6	4
35	Coherent Carrier Transport in Grpahene npn Junctions. Hyomen Kagaku, 2015, 36, 124-128.	0.0	0
36	Modulation of Schottky barrier height in graphene/MoS₂/metal vertical heterostructure with large current ONâ€“OFF ratio. Japanese Journal of Applied Physics, 2015, 54, 04DJ04.	1.5	27

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37	van der Waals junctions of layered 2D materials for functional devices. , 2015, , .		0
38	Influence of the density of states of graphene on the transport properties of graphene/MoS2/metal vertical field-effect transistors. Applied Physics Letters, 2015, 106, .	3.3	26
39	Electric field modulation of Schottky barrier height in graphene/MoSe2 van der Waals heterointerface. Applied Physics Letters, 2015, 107, .	3.3	78
40	Edge-channel interferometer at the graphene quantum Hall pn junction. Applied Physics Letters, 2015, 106, .	3.3	29
41	(Invited) Vertical Field Effect Transistor Based on Graphene/Transition Metal Dichalcogenide Van Der Waals Heterostructure. ECS Transactions, 2015, 69, 357-363.	0.5	4
42	Graphene/transition metal dichalcogenide/metal vertical heterostructure transistor with large current ON/OFF ratio. , 2015, , .		0
43	Construction of van der Waals magnetic tunnel junction using ferromagnetic layered dichalcogenide. Applied Physics Letters, 2015, 107, .	3.3	47
44	Excitation and Control of Spin Wave by Light Pulses. Springer Proceedings in Physics, 2015, , 80-82.	0.2	1
45	Tunneling transport in a few monolayer-thick WS2/graphene heterojunction. Applied Physics Letters, 2014, 105, .	3.3	36
46	Cross-sectional transmission electron microscopy analysis of a single self-assembled quantum dot single electron transistor fabricated by atomic force microscope local oxidation. Japanese Journal of Applied Physics, 2014, 53, 045202.	1.5	0
47	Cubic Rashba Spin-Orbit Interaction of a Two-Dimensional Hole Gas in a Strained-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Ge</mml:mi><mml:mo>/</mml:mo><mml:mi>SiGe</mml:mi></mml:mrow></mml:math>Quant Well. Physical Review Letters, 2014, 113, 086601.	7.8	110
48	Large current modulation in exfoliated-graphene/MoS2/metal vertical heterostructures. Applied Physics Letters, 2014, 105, .	3.3	106
49	Mid-infrared photoresponse of graphene nanoribbon bolometer. Japanese Journal of Applied Physics, 2014, 53, 035101.	1.5	2
50	Graphene-based Mid-infrared Photodetectors and Spin Transport Devices. Journal of the Vacuum Society of Japan, 2014, 57, 451-456.	0.3	0
51	Electrical Spin Injection into Graphene through Monolayer Hexagonal Boron Nitride. Applied Physics Express, 2013, 6, 073001.	2.4	92
52	Cross-Sectional Transmission Electron Microscopy Analysis of Nanogap Electrode Fabricated by Atomic Force Microscope Local Oxidation. Japanese Journal of Applied Physics, 2013, 52, 055201.	1.5	1
53	Spin Relaxation in Weak Localization Regime in Multilayer Graphene Spin Valves. Japanese Journal of Applied Physics, 2013, 52, 040205.	1.5	4
54	Directional control of spin-wave emission by spatially shaped light. Nature Photonics, 2012, 6, 662-666.	31.4	219

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55	Reducing spin torque switching current density by boron insertion into a CoFeB free layer of a magnetic tunnel junction. Applied Physics Letters, 2012, 100, 172407.	3.3	10
56	Nonlocal spin transport in single-walled carbon nanotube networks. Physical Review B, 2012, 85, .	3.2	16
57	Topological repulsion between domain walls in magnetic nanowires leading to the formation of bound states. Nature Communications, 2012, 3, 810.	12.8	60
58	Tunnel spin injection into graphene using Al2O3 barrier grown by atomic layer deposition on functionalized graphene surface. Journal of Magnetism and Magnetic Materials, 2012, 324, 849-852.	2.3	31
59	Discrete Domain Wall Positioning Due to Pinning in Current Driven Motion along Nanowires. Nano Letters, 2011, 11, 96-100.	9.1	40
60	Fabrication of Single-Electron Transistor Composed of a Self-Assembled Quantum Dot and Nanogap Electrode by Atomic Force Microscope Local Oxidation. Applied Physics Express, 2010, 3, 035001.	2.4	7
61	Dependence of field driven domain wall velocity on cross-sectional area in Ni65Fe20Co15 nanowires. Applied Physics Letters, 2010, 97, .	3.3	27
62	Dynamics of Magnetic Domain Walls Under Their Own Inertia. Science, 2010, 330, 1810-1813.	12.6	192
63	Enhanced stochasticity of domain wall motion in magnetic racetracks due to dynamic pinning. Nature Communications, 2010, 1, 25.	12.8	66
64	Thermal-magnetic noise measurement of spin-torque effects on ferromagnetic resonance in MgO-based magnetic tunnel junctions. Applied Physics Letters, 2009, 95, .	3.3	17
65	Generation of local magnetic fields at megahertz rates for the study of domain wall propagation in magnetic nanowires. Applied Physics Letters, 2009, 95, 262503.	3.3	2
66	Probing vortex-core dynamics using current-induced resonant excitation of a trapped domain wall. Nature Physics, 2008, 4, 368-372.	16.7	105
67	Current-Controlled Magnetic Domain-Wall Nanowire Shift Register. Science, 2008, 320, 209-211.	12.6	620
68	Real time observation of the field driven periodic transformation of domain walls in Permalloy nanowires at the Larmor frequency and its first harmonic. Applied Physics Letters, 2008, 92, 112510.	3.3	24
69	Dynamics of domain wall depinning driven by a combination of direct and pulsed currents. Applied Physics Letters, 2008, 92, .	3.3	32
70	Current Driven Domain Wall Velocities Exceeding the Spin Angular Momentum Transfer Rate in Permalloy Nanowires. Physical Review Letters, 2007, 98, 037204.	7.8	240
71	Resonant Amplification of Magnetic Domain-Wall Motion by a Train of Current Pulses. Science, 2007, 315, 1553-1556.	12.6	136
72	Direct observation of the coherent precession of magnetic domain walls propagating along permalloy nanowires. Nature Physics, 2007, 3, 21-25.	16.7	285

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73	Influence of Current on Field-Driven Domain Wall Motion in Permalloy Nanowires from Time Resolved Measurements of Anisotropic Magnetoresistance. Physical Review Letters, 2006, 96, 197207.	7.8	275
74	Dependence of Current and Field Driven Depinning of Domain Walls on Their Structure and Chirality in Permalloy Nanowires. Physical Review Letters, 2006, 97, 207205.	7.8	339
75	Oscillatory dependence of current-driven magnetic domain wall motion on current pulse length. Nature, 2006, 443, 197-200.	27.8	395
76	Oscillatory dependence of current driven domain wall motion on current pulse length. , 2006, , .		1
77	Magnetization Reversal by Electrical Spin Injection in Ferromagnetic (Ga,Mn)As-Based Magnetic Tunnel Junctions. Journal of Superconductivity and Novel Magnetism, 2005, 18, 3-7.	0.5	1
78	Correlation between ferromagnetism and hole localization in very thin (Ga,Mn)As epilayers. Journal of Applied Physics, 2005, 97, 10D301.	2.5	2
79	Contribution of Shape Anisotropy to the Magnetic Configuration of (Ga, Mn)As. Japanese Journal of Applied Physics, 2004, 43, L306-L308.	1.5	25
80	Current-Induced Magnetization Reversal in a (Ga,Mn)As-Based Magnetic Tunnel Junction. Japanese Journal of Applied Physics, 2004, 43, L825-L827.	1.5	22
81	Anisotropic Magnetotransport due to Uniaxial Magnetic Anisotropy in (Ga,Mn)As Wires. IEEE Transactions on Magnetics, 2004, 40, 2682-2684.	2.1	3
82	Photo-induced magnetization rotation in IIIâ€“V ferromagnetic alloy semiconductor quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 987-990.	2.7	3
83	Formation of quantized states and spin dynamics in IIIâ€“V-based ferromagnetic quantum wells. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 2016-2017.	2.3	15
84	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 439-442.	0.5	3
85	Magnetotransport study of temperature dependent magnetic anisotropy in a (Ga,Mn)As epilayer. Journal of Applied Physics, 2003, 94, 7657.	2.5	69
86	Relation among concentrations of incorporated Mn atoms, ionized Mn acceptors, and holes inp-(Ga,Mn)As epilayers. Journal of Applied Physics, 2003, 93, 4603-4609.	2.5	49
87	Control of magnetic anisotropy and magnetotransport in epitaxial micropatterned (Ga,Mn)As wire structures. IEEE Transactions on Magnetics, 2003, 39, 2785-2787.	2.1	9
88	Effect of Optical Spin Injection on Ferromagnetically Coupled Mn Spins in the III-V Magnetic Alloy Semiconductor(Ga,Mn)As. Physical Review Letters, 2002, 88, 137202.	7.8	157
89	Characteristics of molecular beam epitaxy-grown GaFeAs. Current Applied Physics, 2002, 2, 379-382.	2.4	4
90	Preparation of quaternary magnetic alloy semiconductor epilayers (Ga,Mn,Fe)As. Journal of Crystal Growth, 2002, 237-239, 1344-1348.	1.5	5

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91	Preparation and magneto-optical property of highly-resistive (Ga,Fe)As epilayers. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 10, 224-228.	2.7	9
92	Fundamental properties of Fe-based IIIâ€“V magnetic alloy semiconductor (Ga,Fe)As. Springer Proceedings in Physics, 2001, , 258-259.	0.2	0
93	Control of magnetic features in epitaxial micro-patterned (Ga,Mn)As wire structures. , 0, , .		0