## Makoto Kohda

List of Publications by Year in descending order

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257450 289244 121 1,898 24 40 citations h-index g-index papers 122 122 122 1731 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Thickness dependence of spin–orbit torques in Pt/Co structures on epitaxial substrates. APL Materials, 2022, 10, .	5.1	5
2	Anisotropic spin dynamics in semiconductor narrow wires from the interplay between spin-orbit interaction and planar magnetic field. Physical Review B, 2022, 105, .	3.2	2
3	D'yakonov–Perel and Elliot–Yafet spin relaxation rates in InGaAs/InAlAs multiple quantum wells at room temperature. Applied Physics Express, 2022, 15, 043001.	2.4	2
4	Efficient spin–orbit torque in magnetic trilayers using all three polarizations of a spin current. Nature Electronics, 2022, 5, 217-223.	26.0	28
5	Anisotropic Spin-Orbit Torque through Crystal-Orientation Engineering in Epitaxial <mml:math display="inline" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Pt</mml:mi></mml:math> . Physical Review Applied, 2021, 15, .	3.8	13
6	Control of spin relaxation anisotropy by spin-orbit-coupled diffusive spin motion. Physical Review B, 2021, 103, .	3.2	10
7	Origin of spin–orbit torque in single-layer CoFeB investigated via in-plane harmonic Hall measurements. AIP Advances, 2021, 11, 025033.	1.3	10
8	Full spin-orbit coefficient in III-V semiconductor wires based on the anisotropy of weak localization under in-plane magnetic field. Physical Review B, 2021, 103, .	3.2	6
9	Distinguishing persistent effects in an undoped GaAs/AlGaAs quantum well by top-gate-dependent illumination. Journal of Applied Physics, 2021, 129, 234301.	2.5	3
10	Room-temperature spin–orbit magnetic fields in slightly misoriented (110) InGaAs/InAlAs multiple quantum wells. Applied Physics Letters, 2021, 119, 032405.	3.3	3
11	Intravalley scattering probed by excitation energy dependence of valley polarization in monolayer MoS <sub>2</sub> . Journal Physics D: Applied Physics, 2021, 54, 485304.	2.8	4
12	Spintronic Terahertz Emission and Magnetic Anisotropy of Epitaxial Platinum Heterostructures on MgO(110) Substrate. , 2021, , .		0
13	Reliable modeling of weak antilocalization for accurate spin-lifetime extraction. Physical Review B, 2021, 104, .	3.2	1
14	Detection of Spin Transfer from Metal to Molecule by Magnetoresistance Measurement. Nano Letters, 2020, 20, 75-80.	9.1	3
15	Room-temperature perpendicular magnetic anisotropy of Pt/Co/AlOx trilayers on SrTiO3 (001). AIP Advances, 2020, 10, 105010. Disentanglement of Spin-Orbit Torques in <mml:math< td=""><td>1.3</td><td>O</td></mml:math<>	1.3	O
16	xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"> <mml:mi>Pt</mml:mi> / <mml:math display="inline" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Co</mml:mi></mml:math> Bilayers with the Presence of Spin Hall Effect	3.8	38
17	and Rashba-Edelstein Effect. Physical Review Applied, 2020, 13, .  Spin–orbit parameters derivation using single-frequency analysis of InGaAs multiple quantum wells in transient spin dynamics regime. Journal of Applied Physics, 2020, 127, 153901.	2.5	2
18	Enhanced longevity of the spin helix in low-symmetry quantum wells. Physical Review B, 2020, 101, .	3.2	12

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19	Current direction dependent spin Hall magnetoresistance in epitaxial Pt/Co bilayers on MgO(110). Physical Review B, 2020, 101, .	3.2	14
20	Anomalous Spin-Orbit Field via the Rashba-Edelstein Effect at the <mml:math display="inline" overflow="scroll" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mi mathvariant="normal">W</mml:mi></mml:mrow></mml:mrow><mml:mrow><mml:mo>/</mml:mo>/<mml:mi>&gt;t</mml:mi><td>3.8 /mml:math</td><td>12 &gt;</td></mml:mrow></mml:math>	3.8 /mml:math	12 >
21	Spin accumulation in photo-induced potential dimples generated in semiconductors. Communications Physics, 2020, 3, .	5.3	1
22	Temperature and laser energy dependence of the electron g-factor in intrinsic InGaAs/InAlAs multiple quantum wells. Applied Physics Letters, 2019, 115, 012404.	3.3	1
23	Temperature-dependent spin Hall effect tunneling spectroscopy in platinum. Applied Physics Letters, 2019, 115, .	3.3	9
24	Irradiation Effects on Induced Electron Conductivity in an un-doped GaAs/AlGaAs Quantum Well Hall Bar. , 2019, , .		0
25	Simultaneous evaluation of drift- and diffusion-induced spin-orbit fields in a (001) GaAs/AlGaAs two-dimensional electron gas. Applied Physics Letters, 2019, 115, 052402.	3.3	7
26	Evaluation of spin–orbit torque in a L1 <sub>0</sub> -FePt single layer and a L1 <sub>0</sub> -FePt/Pt bilayer. Japanese Journal of Applied Physics, 2019, 58, 060915.	1.5	5
27	Detection of both optical polarization and coherence transfers to excitonic valley states in CVD-grown monolayer MoS <sub>2</sub> . Applied Physics Express, 2019, 12, 063005.	2.4	5
28	Enhancement of spin current generation in epitaxial <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi><math>\hat{l}\pm&lt;</math>/mml:mi&gt;</mml:mi></mml:math> -Ta/CoFeB bilayer. Physical Review B, 2019, 99, .	3.2	22
29	Crystal orientation dependence of spin-orbit torques in Co/Pt bilayers. Applied Physics Letters, 2019, 114, .	3.3	21
30	Spin-momentum locked spin manipulation in a two-dimensional Rashba system. Scientific Reports, 2019, 9, 1909.	3.3	13
31	Ballistic spin locking in a two-dimensional Rashba system. , 2019, , .		O
32	Simultaneous extraction of Rashba and Dresselhaus spin-orbit coefficients in GaAs/AlGaAs (110) two-dimensional electron gas. , 2019, , .		0
33	Transient diffusive spin dynamics in intrinsic InGaAs/InAlAs multiple quantum wells. Applied Physics Letters, 2019, 115, 172406.	3 <b>.</b> 3	8
34	Phase velocity of drifting spin wave packets in semiconductor two-dimensional electron gas. Applied Physics Express, 2019, 12, 013001.	2.4	7
35	Diffusive spin dynamics in 10 nm wide InGaAs/InAlAs quantum wells. , 2019, , .		O
36	Enhancement of spin–orbit interaction of Cu thin films by oxidation treatment. Applied Physics Express, 2018, 11, 033001.	2.4	7

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37	Effect of optical waveguide on photoluminescence polarization in layered material GaSe with millimeter scale. Japanese Journal of Applied Physics, 2018, 57, 020308.	1.5	6
38	Spatial variation of dynamic nuclear spin polarization probed by the non-local Hanle effect. Applied Physics Letters, 2018, 112, 132403.	3.3	1
39	Robustness of a persistent spin helix against a cubic Dresselhaus field in (001) and (110) oriented two-dimensional electron gases. Physical Review B, 2018, 98, .	3.2	9
40	Physics and application of persistent spin helix state in semiconductor heterostructures. Semiconductor Science and Technology, 2017, 32, 073002.	2.0	48
41	Electric-field-induced on/off switching of the Faraday effect. Applied Physics Express, 2017, 10, 123201.	2.4	4
42	Drift-Induced Enhancement of Cubic Dresselhaus Spin-Orbit Interaction in a Two-Dimensional Electron Gas. Physical Review Letters, 2017, 119, 187703.	7.8	12
43	Weak antilocalization induced by Rashba spin-orbit interaction in layered III-VI compound semiconductor GaSe thin films. Physical Review B, 2017, 96, .	3.2	32
44	Different spin relaxation mechanisms between epitaxial and polycrystalline Ta thin films. Applied Physics Express, 2017, 10, 023003.	2.4	8
45	Gate-controlled switching between persistent and inverse persistent spin helix states. Applied Physics Letters, 2016, 108, .	3.3	26
46	Spin coherence enhanced by in-plane electric field-induced spin-orbit interaction. , 2016, , .		0
47	Enhancement of electric field modulation of coercivity in Pt /Co/Al-O structures by tuning Co surface oxidation. Journal Physics D: Applied Physics, 2016, 49, 03LT01.	2.8	8
48	Determination of the bulk Dresselhaus spin-orbit interaction parameter in an InGaAs quantum well. , 2016, , .		0
49	Control of magnetic anisotropy in Pt/Co system using ionic liquid gating. Applied Physics Express, 2016, 9, 063007.	2.4	35
50	Drift transport of helical spin coherence with tailored spin–orbit interactions. Nature Communications, 2016, 7, 10722.	12.8	43
51	Current-Controlled Spin Precession of Quasistationary Electrons in a Cubic Spin-Orbit Field. Physical Review Letters, 2016, 116, 196802.	7.8	30
52	Observation of the D'yakonov-Perel' Spin Relaxation in Single-Crystalline Pt Thin Films. Physical Review Letters, 2016, 116, 256802.	7.8	50
53	Bias dependence of spin injection/transport properties of a perpendicularly magnetized FePt/MgO/GaAs		
	structure. Applied Physics Express, 2016, 9, 043002.	2.4	2

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55	Effect of cubic Dresselhaus spin-orbit interaction in a persistent spin helix state including phonon scattering in semiconductor quantum wells. Applied Physics Letters, 2015, 107, .	3.3	5
56	All-optical evaluation of spin-orbit interaction based on diffusive spin motion in a two-dimensional electron gas. Applied Physics Letters, 2015, 107, .	3.3	17
57	In-plane tunneling anisotropic magnetoresistance in (Ga,Mn)As/GaAs Esaki diodes in the regime of the excess current. Applied Physics Letters, 2015, 106, 262402.	3.3	5
58	Shot Noise Induced by Nonequilibrium Spin Accumulation. Physical Review Letters, 2015, 114, 016601.	7.8	28
59	Comparison of electrical and optical detection of spin injection inL10-FePt/MgO/GaAs hybrid structures. Journal Physics D: Applied Physics, 2015, 48, 164003.	2.8	3
60	Layer thickness dependence of spin orbit torques and fields in Pt/Co/AlO trilayer structures. Japanese Journal of Applied Physics, 2015, 54, 04DM05.	1.5	2
61	Perpendicular Magnetic Anisotropy in Pt/Co/AlO Trilayer Structures Depending on AlO Thickness and Fabrication Method. Key Engineering Materials, 2014, 616, 247-251.	0.4	0
62	Giant enhancement of spin detection sensitivity in (Ga,Mn)As/GaAs Esaki diodes. Physical Review B, 2014, 89, .	3.2	20
63	Platinum layer thickness dependence of spin-Hall induced effective magnetic field in Pt/Co/Pt structures. Japanese Journal of Applied Physics, 2014, 53, 04EM06.	1.5	4
64	Direct determination of spin–orbit interaction coefficients and realization of the persistent spin helix symmetry. Nature Nanotechnology, 2014, 9, 703-709.	31.5	97
65	Platinum thickness dependence and annealing effect of the spin-Seebeck voltage in platinum/yttrium iron garnet structures. Applied Physics Express, 2014, 7, 093001.	2.4	33
66	Chirality determination of ferromagnetic disk by local Hall effect. Applied Physics Letters, 2013, 103, 122408.	3.3	4
67	Manipulation of mobile spin coherence using magnetic-field-free electron spin resonance. Nature Physics, 2013, 9, 280-283.	16.7	57
68	Shot noise at the quantum point contact in InGaAs heterostructure., 2013,,.		0
69	Voltage-induced coercivity change in FePt/MgO stacks with different FePt thicknesses. Journal Physics D: Applied Physics, 2013, 46, 285002.	2.8	13
70	Structural and magnetic properties of $\langle i \rangle L \langle i \rangle 1$ -FePd/MgO films on GaAs and InP lattice mismatched substrates. Applied Physics Letters, 2013, 102, .	3.3	10
71	Anisotropy and Damping in Co\$_{2}\$FeAl\$_{0.5}\$Si\$_{0.5}\$ via Electrical Detection of Ferromagnetic Resonance. Japanese Journal of Applied Physics, 2012, 51, 083001.	1.5	5
72	Relative Vortex State Control in a Co/Cu/Co Pseudo-Spin-Valve Ring. Japanese Journal of Applied Physics, 2012, 51, 04DM04.	1.5	2

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73	Anisotropic Weak Anti-Localization under In-Plane Magnetic Field and Control of Dimensionality via Spin Precession Length. Japanese Journal of Applied Physics, 2012, 51, 04DM01.	1.5	1
74	Electrical determination of relative chirality direction in a Co/Cu/Co ferromagnetic ring. Applied Physics Letters, 2012, 101, 062409.	<b>3.</b> 3	1
75	Dynamic nuclear spin polarization in an all-semiconductor spin injection device with (Ga,Mn)As/ <i>n</i> -GaAs spin Esaki diode. Applied Physics Letters, 2012, 101, .	3.3	22
76	Shot noise suppression in InGaAs/InGaAsP quantum channels. Applied Physics Letters, 2012, 100, .	<b>3.</b> 3	12
77	Gate-controlled persistent spin helix state in (In,Ga)As quantum wells. Physical Review B, 2012, 86, .	3.2	116
78	MgO Layer Thickness Dependence of Structure and Magnetic Properties of $L1_{0}\$ -FePt/MgO/GaAs Structures. Japanese Journal of Applied Physics, 2012, 51, 02BM05.	1.5	5
79	Proposal of spin complementary field effect transistor. Applied Physics Letters, 2012, 100, 113502.	3.3	35
80	Spin–orbit induced electronic spin separation in semiconductor nanostructures. Nature Communications, 2012, 3, 1082.	12.8	68
81	Experimental Demonstration of Spin Geometric Phase: Radius Dependence of Time-Reversal Aharonov-Casher Oscillations. Physical Review Letters, 2012, 108, 086801.	7.8	53
82	Semiclassical approach for spin dephasing in a quasi-one-dimensional channel. Physical Review B, 2012, 85, .	3.2	10
83	MgO Layer Thickness Dependence of Structure and Magnetic Properties ofL10-FePt/MgO/GaAs Structures. Japanese Journal of Applied Physics, 2012, 51, 02BM05.	1.5	2
84	Relative Vortex State Control in a Co/Cu/Co Pseudo-Spin-Valve Ring. Japanese Journal of Applied Physics, 2012, 51, 04DM04.	1.5	3
85	Anisotropic Weak Anti-Localization under In-Plane Magnetic Field and Control of Dimensionality via Spin Precession Length. Japanese Journal of Applied Physics, 2012, 51, 04DM01.	1.5	0
86	Anisotropy and Damping in Co2FeAl0.5Si0.5via Electrical Detection of Ferromagnetic Resonance. Japanese Journal of Applied Physics, 2012, 51, 083001.	1.5	0
87	Anisotropic spin transport affected by competition between spin orbit interaction and Zeeman effect in an InGaAs based wire. Journal of Physics: Conference Series, 2011, 334, 012062.	0.4	0
88	Magnitude and sign control of lithography-induced uniaxial anisotropy in ultra-thin (Ga,Mn)As wires. Applied Physics Letters, 2011, 98, 083101.	<b>3.</b> 3	6
89	Acoustically Induced Spin-Orbit Interactions Revealed by Two-Dimensional Imaging of Spin Transport in GaAs. Physical Review Letters, 2011, 106, 216602.	7.8	48
90	Coercivity change in an FePt thin layer in a Hall device by voltage application. Applied Physics Letters, 2011, 98, .	3.3	96

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91	Suppression of Aharonov-Casher spin interference in an InGaAs ring array. Journal of Physics: Conference Series, 2011, 302, 012002.	0.4	2
92	Observation of spin wave modes depending on a tunable periodic magnetic field. Applied Physics Letters, 2011, 98, 172508.	3.3	24
93	Proposal for electrical detection of spin separation with in-plane magnetic field in mesoscopic Stern-Gerlach spin filter. , 2010, , .		0
94	Enhancement of Rashba Spin–Orbit Interaction Due to Wave Function Engineering. Journal of Superconductivity and Novel Magnetism, 2010, 23, 49-52.	1.8	1
95	Width and temperature dependence of lithography-induced magnetic anisotropy in (Ga,Mn)As wires. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2685-2689.	2.7	2
96	Anisotropic spin splitting in InGaAs wire structures. Physics Procedia, 2010, 3, 1255-1259.	1.2	1
97	Experimental demonstration of resonant spin-orbit interaction effect. Physics Procedia, 2010, 3, 1261-1266.	1.2	0
98	Electrical spin manipulation with Al2O3 gate insulator in InGaAs based mesoscopic ring arrays. Physics Procedia, 2010, 3, 1317-1320.	1.2	0
99	Enhancement of spin-orbit interaction and the effect of interface diffusion in quaternary InGaAsP/InGaAs heterostructures. Physical Review B, 2010, 81,.	3.2	20
100	Spin–Orbit Interaction in an In0.53Ga0.47As/In0.7Ga0.3As Shallow Two-Dimensional Electron Gas Located 5 nm below InP Surface Barrier. Japanese Journal of Applied Physics, 2010, 49, 04DM02.	1.5	2
101	Electrical Detection of Propagating Spin Waves Controlled by a Local Magnetic Field Induced by a DC Current. Japanese Journal of Applied Physics, 2010, 49, 04DM01.	1.5	3
102	Enhancement of Spin Lifetime in Gate-Fitted InGaAs Narrow Wires. Physical Review Letters, 2009, 102, 226601.	7.8	60
103	Electrical manipulation of spins in the Rashba two dimensional electron gas systems. Journal of Applied Physics, 2009, 105, 122402.	2.5	23
104	Local Hall measurement of magnetization reversal and magnetic interaction in Fe/Au/Fe trilayer rings. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 294-297.	0.8	2
105	Rashba spin-orbit interaction of In0.53Ga0.47As/In0.7Ga0.3As/In0.53Ga0.47As shallow two-dimensional electron gas by surface etching. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 322-325.	0.8	4
106	Quantum well thickness dependence of spin orbit interaction in gated InP/InO.8GaO.2As/InO.52AlO.48As asymmetric quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1194-1196.	2.7	8
107	Manipulating Spin–Orbit Interaction in Semiconductors. Journal of the Physical Society of Japan, 2008, 77, 031008.	1.6	37
108	Control of interlayer magnetostatic coupling in submicron-sized Feâ^•Auâ^•Fe rings. Applied Physics Letters, 2008, 92, 032502.	3.3	3

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109	High Remanent Magnetization ofL10-Ordered FePt Thin Film on MgO/(001) GaAs. Japanese Journal of Applied Physics, 2008, 47, 3269-3271.	1.5	8
110	Suppression of stray field between adjacent rings in one-dimensional ferromagnetic ring arrays. Journal of Applied Physics, 2008, 103, 07A714.	2.5	3
111	All-Electrical Detection of the Relative Strength of Rashba and Dresselhaus Spin-Orbit Interaction in Quantum Wires. Physical Review Letters, 2008, 101, 266401.	7.8	79
112	Comparison of Gate Sensitivity for Spin Interference Effect between Al <sub>2</sub> O <sub>3</sub> and SiO <sub>2</sub> Gate Insulators on InGaAs Based Mesoscopic Ring Arrays. ECS Transactions, 2008, 16, 39-49.	0.5	1
113	EFFECT OF THE ARRAY DISTANCE ON THE MAGNETIZATION CONFIGURATION OF SUBMICORN-SIZED FERROMAGNETIC RINGS. , 2008, , .		0
114	Lateral and Vertical Magnetic Interactions in Submicron-Sized Fe Ring Arrays and Fe/Au/Fe Trilayer Ring Structures. Japanese Journal of Applied Physics, 2007, 46, 2164-2166.	1.5	4
115	Bias voltage dependence of the electron spin injection studied in a three-terminal device based on a (Ga,Mn)Asâ^•n+-GaAs Esaki diode. Applied Physics Letters, 2006, 89, 012103.	3.3	39
116	Magnetic interaction of submicron-sized ferromagnetic rings in one-dimensional array. Applied Physics Letters, 2006, 89, 122508.	3.3	23
117	Gate controlled crossover from weak localization to weak antilocalization in a narrow gap In0.8Ga0.2As/InP heterostructure. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4239-4242.	0.8	8
118	Magnetoresistance oscillations induced by spin orbit interaction and intersubband scattering in a gated InP/In0.8Ga0.2As/In0.52Al0.48As heterostructure. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4243-4246.	0.8	0
119	Spin injection with three terminal device based on (Ga,Mn)As/n+-GaAs tunnel junction. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4164-4167.	0.8	5
120	Effect of n+-GaAs thickness and doping density on spin injection of GaMnAs/n+-GaAs Esaki tunnel junction. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 438-441.	2.7	20
121	A Spin Esaki Diode. Japanese Journal of Applied Physics, 2001, 40, L1274-L1276.	1.5	125