

# Hiro Munekata

## List of Publications by Year in descending order

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106  
papers

3,502  
citations

304743

22  
h-index

138484

58  
g-index

108  
all docs

108  
docs citations

108  
times ranked

2173  
citing authors

#	ARTICLE	IF	CITATIONS
1	Diluted magnetic III-V semiconductors. Physical Review Letters, 1989, 63, 1849-1852.	7.8	1,018
2	Ferromagnetic Order Induced by Photogenerated Carriers in Magnetic III-V Semiconductor Heterostructures of (In,Mn)As/GaSb. Physical Review Letters, 1997, 78, 4617-4620.	7.8	600
3	Preparation of (In,Mn)As/(Ga,Al)Sb magnetic semiconductor heterostructures and their ferromagnetic characteristics. Applied Physics Letters, 1993, 63, 2929-2931.	3.3	166
4	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
5	Photoinduced Precession of Magnetization in Ferromagnetic (Ga,Mn)As. Physical Review Letters, 2008, 100, 067202.	7.8	100
6	Local structure and chemical valency of Mn impurities in wide-band-gap III-V magnetic alloy semiconductors Ga <sub>1-x</sub> Mn <sub>x</sub> N. Applied Physics Letters, 2001, 79, 3926-3928.	3.3	95
7	Ultrafast Quenching of Ferromagnetism in InMnAs Induced by Intense Laser Irradiation. Physical Review Letters, 2005, 95, 167401.	7.8	94
8	Ultrafast magneto-optics in ferromagnetic III-V semiconductors. Journal of Physics Condensed Matter, 2006, 18, R501-R530.	1.8	85
9	Electroluminescence in hydrogenated amorphous silicon-carbon alloy. Applied Physics Letters, 1983, 42, 432-434.	3.3	82
10	Preparation of ferromagnetic (In,Mn)As with a high Curie temperature of 90K. Applied Physics Letters, 2006, 89, 042507.	3.3	80
11	White photoluminescence of amorphous silicon-carbon alloy prepared by glow-discharge decomposition of tetramethylsilane. Applied Physics Letters, 1980, 37, 536-537.	3.3	79
12	High-energy spectroscopic study of the III-V nitride-based diluted magnetic semiconductor Ga <sub>1-x</sub> Mn <sub>x</sub> N. Physical Review B, 2005, 72, .	3.2	66
13	Pure circular polarization electroluminescence at room temperature with spin-polarized light-emitting diodes. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1783-1788.	7.1	65
14	Dynamics of photoinduced magnetization rotation in ferromagnetic semiconductor p-(Ga,Mn)As. Physical Review B, 2004, 69, .	3.2	64
15	Relation among concentrations of incorporated Mn atoms, ionized Mn acceptors, and holes in p-(Ga,Mn)As epilayers. Journal of Applied Physics, 2003, 93, 4603-4609.	2.5	49
16	Femtosecond demagnetization and hot-hole relaxation in ferromagnetic Ga <sub>1-x</sub> Mn <sub>x</sub> N. Physical Review B, 2008, 77, .	3.2	37
17	Coherent manipulation of magnetization precession in ferromagnetic semiconductor (Ga,Mn)As with successive optical pumping. Applied Physics Letters, 2008, 93, .	3.3	32
18	Infrared optical conductivity of In <sub>1-x</sub> Mn <sub>x</sub> As. Physica E: Low-Dimensional Systems and Nanostructures, 2001, 10, 215-218.	2.7	31

#	ARTICLE	IF	CITATIONS
19	Propagating coherent acoustic phonon wave packets in $\text{In}_x\text{Mn}_{1-x}\text{As}/\text{GaSb}$ . <i>Physical Review B</i> , 2005, 72, .	3.2	31
20	Photoinduced Magnetization Rotation and Precessional Motion of Magnetization in Ferromagnetic (Ga,Mn)As. <i>Journal of Superconductivity and Novel Magnetism</i> , 2005, 18, 9-13.	0.5	28
21	Semiconductor Waveguide Optical Isolator Incorporating Ferromagnetic Epitaxial MnSb for High Temperature Operation. <i>Applied Physics Express</i> , 0, 1, 022002.	2.4	28
22	A spin light emitting diode incorporating ability of electrical helicity switching. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	25
23	Ultrafast optical and magneto-optical studies of $\text{In}_x\text{Mn}_{1-x}\text{As}$ ferromagnetic semiconductors. <i>Journal of Modern Optics</i> , 2004, 51, 2771-2780.	1.3	24
24	Monte Carlo simulation of scattered circularly polarized light in biological tissues for detection technique of abnormal tissues using spin-polarized light emitting diodes. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SEEG03.	1.5	23
25	Ultrafast Optical Manipulation of Ferromagnetic Order in $\text{InMnAs}/\text{GaSb}$ . <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 373-377.	0.5	18
26	Efficient spin injection through a crystalline $\text{AlO}_x$ tunnel barrier prepared by the oxidation of an ultra-thin Al epitaxial layer on GaAs. <i>Journal of Applied Physics</i> , 2013, 114, 033507.	2.5	18
27	High- $\epsilon$ -type doping of ZnSe using LiN diffusion. <i>Applied Physics Letters</i> , 1994, 65, 2437-2438.	3.3	17
28	Theory of carrier dynamics and time resolved reflectivity in $\text{In}_x\text{Mn}_{1-x}\text{As}/\text{GaSb}$ heterostructures. <i>Physical Review B</i> , 2005, 72, .	3.2	17
29	Large bandgap magneto-optical Kerr effect in ferromagnetic Ga <sub>1-x</sub> Mn <sub>x</sub> As. <i>Physical Review B</i> , 2005, 72, .	3.2	17
30	X-ray scattering and absorption studies of MnAs/GaAs heterostructures. <i>Journal of Applied Physics</i> , 1996, 79, 1435-1440.	2.5	15
31	Arbitrary helicity control of circularly polarized light from lateral-type spin-polarized light-emitting diodes at room temperature. <i>Applied Physics Express</i> , 2018, 11, 053003.	2.4	15
32	Lateral-Type Spin-Photonics Devices: Development and Applications. <i>Micromachines</i> , 2021, 12, 644.	2.9	15
33	Radiative and Non-Radiative Recombination Processes of Photo-Generated Carriers in $\text{a-Si}_{1-x}\text{C}_{1-x}\text{H}_x$ ( $x \approx 1/40.2$ ). <i>Journal of the Physical Society of Japan</i> , 1983, 52, 3985-3991.	1.6	14
34	Surface smoothing of GaAs microstructure by atomic layer epitaxy. <i>Applied Physics Letters</i> , 1999, 74, 964-966.	3.3	14
35	Low-Power Photo-Induced Precession of Magnetization in Ultra-Thin Co/Pd Multilayer Films. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 3155-3158.	2.1	12
36	Investigation of helicity-dependent photocurrent at room temperature from a $\text{Fe}/x\text{-AlO}_x/\text{p-GaAs}$ Schottky junction with oblique surface illumination. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 04CN05.	1.5	12

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37	Atomic layer epitaxy of AlAs using ethyldimethylamine alane as a new aluminum source. Applied Physics Letters, 1994, 65, 1115-1117.	3.3	11
38	Photo-Induced Precession of Magnetization in Metal/(Ga, Mn)As Systems. IEEE Transactions on Magnetics, 2010, 46, 2470-2473.	2.1	11
39	Laser-induced spin dynamics in ferromagnetic (In,Mn)As at magnetic fields up to 7 T. Physical Review B, 2014, 89, .	3.2	11
40	Optically pumped ZnSe-based vertical cavity surface emitter with SiO <sub>2</sub> /TiO <sub>2</sub> multilayer reflector. Journal of Applied Physics, 1995, 78, 4784-4786.	2.5	10
41	Thickness dependence of magneto-optical effects in (Ga,Mn)As epitaxial layers. Applied Physics Letters, 2012, 100, .	3.3	10
42	Mechanism of photoexcited precession of magnetization in (Ga,Mn)As on the basis of time-resolved spectroscopy. Physical Review B, 2016, 93, .	3.2	10
43	Observation of reversed hysteresis loops and negative coercivity in granular GaAs-Fe hybrid structures. Journal of Applied Physics, 2001, 89, 7015-7017.	2.5	9
44	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
45	Circularly polarized light detector based on ferromagnet/semiconductor junctions. Journal of the Magnetics Society of Japan, 2014, 38, 147-150.	0.9	9
46	Ultrafast demagnetization of ferromagnetic semiconductor InMnAs by dual terahertz and infrared excitations. Applied Physics Letters, 2020, 117, .	3.3	9
47	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 107-110.	0.5	8
48	Temperature dependence of terahertz emission from InMnAs. Applied Physics Letters, 2007, 90, 012103.	3.3	8
49	Investigation of an effective anisotropy field involved in photoinduced precession of magnetization in (Ga,Mn)As. Journal of Applied Physics, 2009, 105, .	2.5	8
50	Room temperature spin injection into (110) GaAs quantum wells using Fe/x-AlO <sub>x</sub> contacts in the regime of current density comparable to laser oscillation. Journal of Applied Physics, 2015, 118, 163905.	2.5	8
51	Title is missing!. Journal of Materials Science: Materials in Electronics, 2000, 11, 7-10.	2.2	7
52	Effect of Ga <sup>+</sup> irradiation on magnetic and magnetotransport properties in (Ga,Mn)As epilayers. Journal of Applied Physics, 2005, 97, 10D302.	2.5	7
53	Photoemission and X-ray absorption studies of the electronic structure of GaN-based diluted magnetic semiconductors. Physica Status Solidi (B): Basic Research, 2006, 243, 1696-1700.	1.5	7
54	MnSb-based spin LED with side-wall emission. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 396-398.	0.8	7

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55	A lateral-type spin-photodiode based on Fe/x-AlO <sub>x</sub> /p-InGaAs junctions with a refracting-facet side window. Journal of Applied Physics, 2018, 123, 213903.	2.5	7
56	Photo-induced changes in magnetization orientation in (Ga,Mn)As observed directly by a scanning laser magneto-optical microscope. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4263-4266.	0.8	6
57	Electronic structure, growth, and structural and magnetic properties of magnetic semiconductor Fe/GaAs heterostructures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1397.	1.6	5
58	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 449-452.	0.5	5
59	All-optical 90-degree switching of magnetization in a ferromagnetic Ga <sub>0.98</sub> Mn <sub>0.02</sub> As microbar. Journal of Applied Physics, 2010, 107, 09C301.	2.5	5
60	Laser-induced precession of magnetization in ferrimagnetic GdFe thin films with low power excitation. AIP Advances, 2013, 3, 032107.	1.3	5
61	Probe of the Band Structure of MBE Grown p-Type InMnAs at Ultrahigh Magnetic Fields. Spin, 2015, 05, 1550002.	1.3	5
62	Optical phenomena in magnetic semiconductors. , 2006, , 1-42.		5
63	Photoinduced Magnetism in Semiconductor-Based Structures. Journal of Superconductivity and Novel Magnetism, 2001, 14, 205-210.	0.5	4
64	(Ga,Mn)N : Sn Epilayers. Journal of Superconductivity and Novel Magnetism, 2003, 16, 103-106.	0.5	4
65	Room-Temperature Photomagnetic Effect of Fe <sub>3</sub> Ga <sub>4</sub> Grown on GaAs Substrates. Journal of Superconductivity and Novel Magnetism, 2006, 18, 321-324.	0.5	4
66	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2003, 16, 439-442.	0.5	3
67	Anisotropic Magnetotransport due to Uniaxial Magnetic Anisotropy in (Ga,Mn)As Wires. IEEE Transactions on Magnetics, 2004, 40, 2682-2684.	2.1	3
68	Magnetization reversal with domain-wall pinning in (Ga, Mn)As wire. IEEE Transactions on Magnetics, 2005, 41, 2742-2744.	2.1	3
69	Modeling and Optimization of Refracting-Facet Spin-Photodiodes Based on Ferromagnetic Metal-Insulator-Semiconductor Tunnel Junctions. Spin, 2020, 10, .	1.3	3
70	Far- and midinfrared excitation of large amplitude spin precession in the ferromagnetic semiconductor InMnAs. Physical Review B, 2020, 101, .	3.2	3
71	Alloying (In,Mn)As and (Ga,Mn)As: Ferromagnetic (In,Ga,Mn)As Lattice-Matched to InP. Journal of Superconductivity and Novel Magnetism, 2003, 16, 45-49.	0.5	2
72	Correlation between ferromagnetism and hole localization in very thin (Ga,Mn)As epilayers. Journal of Applied Physics, 2005, 97, 10D301.	2.5	2

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73	Ferromagnetic (In,Mn)As epitaxial films with Curie temperature of 90 K. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4066-4069.	0.8	2
74	Photo-Induced Precession of Magnetization in (Ga,Mn)As Microbars. IEEE Transactions on Magnetics, 2010, 46, 2421-2423.	2.1	2
75	Magnetic field enhanced detection of coherent phonons in a GaMnAs/GaAs film. Physical Review B, 2020, 102, .	3.2	2
76	Progress in the room temperature operation of GaAs-based lateral-type spin-PD in near-infrared wavelength region. , 2017, , .		2
77	Experimental Investigation of Controlling Light Polarization in Optical Waveguides with Magneto-optical Materials GdFe. Journal of the Magnetics Society of Japan, 2012, 36, 74-77.	0.9	2
78	X-Ray Scattering and Absorption Studies of MnAs Thin Films Grown by MBE on GaAs (001) Substrates. Materials Research Society Symposia Proceedings, 1995, 399, 29.	0.1	1
79	Influence of intermolecular distance on optical property in polydiacetylene crystalline films. Applied Physics Letters, 2001, 78, 1352-1354.	3.3	1
80	Rotation of Ferromagnetically Coupled Mn Spins in (Ga,Mn)As by Hole Spins. Journal of Superconductivity and Novel Magnetism, 2003, 16, 411-414.	0.5	1
81	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
82	Influence of light on ferromagnetic semiconductors: magnetization rotation via the angular momentum and the photon energy. AIP Conference Proceedings, 2005, , .	0.4	1
83	Magnetic anisotropy and magnetization reversal of (Ga,Mn)As dot-array. Journal of Applied Physics, 2011, 109, 07C319.	2.5	1
84	Demonstration of polarization modulated signals in a multi-mode GdFe-silica hybrid fiber. Applied Physics Letters, 2015, 106, .	3.3	1
85	Enhancement of magneto-optical effect via the evanescent wave and its figure of merit. Japanese Journal of Applied Physics, 2016, 55, 07MF03.	1.5	1
86	Investigation of Local Structures Around Mn Atoms in In <sub>1-x</sub> MnxAs Diluted Magnetic Semiconductors Using Exafs. Materials Research Society Symposia Proceedings, 1994, 375, 27.	0.1	0
87	Growth and optical properties of strained (AlP) <sub>n</sub> (GaP) <sub>n</sub> short-period superlattices. Journal of Electronic Materials, 1996, 25, 1801-1805.	2.2	0
88	A study on a novel smoothing method by atomic layer epitaxy for microstructure fabrication. , 1999, , .		0
89	Ultrafast optical manipulation of ferromagnetic order in InMnAs/GaSb. , 0, , .		0
90	Control of magnetic features in epitaxial micro-patterned (Ga,Mn)As wire structures. , 0, , .		0

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91	Ultrafast photoinduced softening in a ferromagnetic semiconductor. , 2003, , .		0
92	Design and fabrication of the spin-photodiode based on non-magnetic III-V semiconductor heterostructures. , 0, , .		0
93	Ultrafast demagnetization in ferromagnetic InMnAs. , 0, , .		0
94	Spin-dependent Transport in Spin-photodiode Consisting of a p-n III-V Heterojunction. , 2006, , .		0
95	Transport Properties of Ferromagnetic Semiconductors with Superconducting Electrodes. AIP Conference Proceedings, 2006, , .	0.4	0
96	Consideration and detection of spin-dependent transport across semiconductor heterojunction. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4196-4199.	0.8	0
97	Domain structure and magnetotransport properties in (Ga,Mn)As wires. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4090-4093.	0.8	0
98	High Temperature Operation of TM-mode Nonreciprocal-Loss Waveguide Optical Isolator with Ferromagnetic MnSb. , 2007, , .		0
99	Temperature dependent and magnetic field dependent terahertz spectroscopy of $\text{In}_{1-x}\text{Mn}_x\text{As}$ . , 2007, , .		0
100	Semiconductor waveguide optical isolators incorporating ferromagnetic epitaxial MnX (X=As or Sb). , 2008, , .		0
101	Imaging in-plane $90^\circ$ magnetization switching in a (Ga,Mn)As epitaxial layer. Journal of Applied Physics, 2018, 124, 063901.	2.5	0
102	Spin Injection From EuS/Co Multilayers Into GaAs Detected by Polarized Electroluminescence. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	0
103	MAGNETIZATION REVERSAL BY OPTICAL SPIN INJECTION AND ITS MEMORIZATION EFFECT IN (Ga, Mn) As THIN FILMS. , 2003, , .		0
104	1-3 Multimedia Storage. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2006, 60, 1178-1185.	0.1	0
105	SPIN-POLARIZED CARRIER INJECTION EFFECT IN FERROMAGNETIC SEMICONDUCTOR/DIFFUSIVE SEMICONDUCTOR/SUPERCONDUCTOR JUNCTIONS. , 2009, , .		0
106	Incidence Angle and Polarization Dependence of Photo-Induced FMR in Co/Pd Multilayers. Journal of the Magnetics Society of Japan, 2014, 38, 151-155.	0.9	0