

Nam Hai Pham

List of Publications by Year in descending order

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94
papers

2,396
citations

218381

26
h-index

214527

47
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96
all docs

96
docs citations

96
times ranked

1924
citing authors

#	ARTICLE	IF	CITATIONS
1	A conductive topological insulator with large spin Hall effect for ultralow power spin-orbit torque switching. Nature Materials, 2018, 17, 808-813.	13.3	350
2	Electromotive force and huge magnetoresistance in magnetic tunnel junctions. Nature, 2009, 458, 489-492.	13.7	164
3	Spinodal nanodecomposition in semiconductors doped with transition metals. Reviews of Modern Physics, 2015, 87, 1311-1377.	16.4	152
4	Recent progress in III-V based ferromagnetic semiconductors: Band structure, Fermi level, and tunneling transport. Applied Physics Reviews, 2014, 1, 011102.	5.5	96
5	High-temperature ferromagnetism in heavily Fe-doped ferromagnetic semiconductor (Ga,Fe)Sb. Applied Physics Letters, 2016, 108, .	1.5	94
6	Growth and characterization of n-type electron-induced ferromagnetic semiconductor (In,Fe)As. Applied Physics Letters, 2012, 101, .	1.5	78
7	Magnetic properties and intrinsic ferromagnetism in Ga _{1-x} Mn _x semiconductors. Physical Review B, 2015, 92, .		
8	Magnetic memory driven by topological insulators. Nature Communications, 2021, 12, 6251.	5.8	67
9	Quantum size effect and tunneling magnetoresistance in ferromagnetic-semiconductor quantum heterostructures. Physical Review B, 2007, 75, .	1.1	62
10	Electron effective mass in n-type electron-induced ferromagnetic semiconductor (In,Fe)As: Evidence of conduction band transport. Applied Physics Letters, 2012, 101, .	1.5	51
11	Long spin-relaxation time in a single metal nanoparticle. Nature Nanotechnology, 2010, 5, 593-596.	15.6	49
12	Semiconductor waveguide optical isolator based on nonreciprocal loss induced by ferromagnetic MnAs. Applied Physics Letters, 2006, 89, 021104.	1.5	43
13	(Ga,Fe)Sb: A p-type ferromagnetic semiconductor. Applied Physics Letters, 2014, 105, .	1.5	43
14	Epitaxial growth and characterization of Bi _{1-x} Sb _x spin Hall thin films on GaAs(111)A substrates. Applied Physics Letters, 2017, 110, .	1.5	43
15	Valence-Band Structure of the Ferromagnetic Semiconductor GaMnAs Studied by Spin-Dependent Resonant Tunneling Spectroscopy. Physical Review Letters, 2010, 104, 167204.	2.9	42
16	Crystalline anisotropic magnetoresistance with two-fold and eight-fold symmetry in (In,Fe)As ferromagnetic semiconductor. Applied Physics Letters, 2012, 100, .	1.5	42
17	Nature of Magnetic Coupling between Mn Ions in As-Grown Ga _{1-x} Mn _x by X-Ray Magnetic Circular Dichroism. Physical Review Letters, 2008, 100, 247202.	2.9	41
18	Observation of spontaneous spin-splitting in the band structure of an n-type zinc-blende ferromagnetic semiconductor. Nature Communications, 2016, 7, 13810.	5.8	40

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19	Modulation of ferromagnetism in $\text{In}_{1-x}\text{Ga}_x\text{Sb}$ quantum wells via electrically controlled deformation of the electron wave functions. <i>Physical Review B</i> , 2015, 92, .	1.1	37
20	High-temperature ferromagnetism in new n-type Fe-doped ferromagnetic semiconductor $(\text{In,Fe})\text{Sb}$. <i>Applied Physics Express</i> , 2018, 11, 063005.	1.1	37
21	154-nm TM-mode waveguide optical isolator based on the nonreciprocal-loss phenomenon: device design to reduce insertion loss. <i>Applied Optics</i> , 2007, 46, 5784.	2.1	34
22	Growth and characterization of insulating ferromagnetic semiconductor $(\text{Al,Fe})\text{Sb}$. <i>Applied Physics Letters</i> , 2015, 107, 232405.	1.5	34
23	Ultralow power spin-orbit torque magnetization switching induced by a non-epitaxial topological insulator on Si substrates. <i>Scientific Reports</i> , 2020, 10, 12185.	1.6	33
24	Tunneling magnetoresistance in $\text{GaMnAs}/\text{AlAs}/\text{InGaAs}/\text{AlAs}/\text{GaMnAs}$ double-barrier magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2005, 87, 012105.	1.5	32
25	Electrical control of ferromagnetism in the n-type ferromagnetic semiconductor $(\text{In,Fe})\text{Sb}$ with high Curie temperature. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	32
26	GaMnAs -based magnetic tunnel junctions with an AlMnAs barrier. <i>Applied Physics Letters</i> , 2009, 95, 242503.	1.5	29
27	Control of ferromagnetism by manipulating the carrier wavefunction in ferromagnetic semiconductor $(\text{In,Fe})\text{As}$ quantum wells. <i>Applied Physics Letters</i> , 2014, 104, 042404.	1.5	26
28	Magnetic properties of MnAs nanoclusters embedded in a GaAs semiconductor matrix. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 1932-1934.	1.0	25
29	Giant unidirectional spin Hall magnetoresistance in topological insulator/ferromagnetic semiconductor heterostructures. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	25
30	Phase decomposition diagram of magnetic alloy semiconductor. <i>Journal of Applied Physics</i> , 2011, 109, 073919.	1.1	24
31	Waveguide-Based 1.5 μm Optical Isolator Based on Magneto-Optic Effect in Ferromagnetic MnAs . <i>Japanese Journal of Applied Physics</i> , 2007, 46, 205-210.	0.8	23
32	Electronic Excitations of a Magnetic Impurity State in the Diluted Magnetic Semiconductor $(\text{Ga,Mn})\text{As}$. <i>Physical Review Letters</i> , 2014, 112, 107203.	2.9	22
33	Ultrahigh efficient spin orbit torque magnetization switching in fully sputtered topological insulator and ferromagnet multilayers. <i>Scientific Reports</i> , 2022, 12, 2998.	1.6	22
34	Tunneling magnetoresistance of MnAs thin film/ $\text{GaAs}/\text{AlAs}/\text{GaAs}:\text{MnAs}$ nanoclusters and its AlAs barrier thickness dependence. <i>Applied Physics Letters</i> , 2006, 89, 242106.	1.5	21
35	Spin polarized tunneling in $\text{InAs}/\text{GaAs}:\text{MnAs}$ based heterostructures with a ferromagnetic MnAs thin film and $\text{GaAs}:\text{MnAs}$ nanoclusters. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 32, 416-418.	1.3	20
36	Spin-dependent transport properties in GaMnAs -based spin hot-carrier transistors. <i>Applied Physics Letters</i> , 2007, 90, 162505.	1.5	20

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37	Spin Hall Effect in Topological Insulators. Journal of the Magnetics Society of Japan, 2020, 44, 137-144.	0.5	20
38	Magnetization process of the n -type ferromagnetic semiconductor (In,Fe)As:Be studied by x-ray magnetic circular dichroism. Physical Review B, 2016, 93, .	1.1	19
39	Heavily Fe-doped ferromagnetic semiconductor (In,Fe)Sb with high Curie temperature and large magnetic anisotropy. Applied Physics Express, 2019, 12, 103004.	1.1	19
40	Crystal growth and characterization of topological insulator BiSb thin films by sputtering deposition on sapphire substrates. Japanese Journal of Applied Physics, 2020, 59, 063001.	0.8	19
41	Spin-valve effect by ballistic transport in ferromagnetic metal (MnAs)/semiconductor (GaAs) hybrid heterostructures. Physical Review B, 2008, 77, .	1.1	18
42	Electronic structure of the high- T_C ferromagnetic semiconductor (Ga,Fe)Sb: X-ray magnetic circular dichroism and resonance photoemission spectroscopy studies. Physical Review B, 2019, 100, .	1.1	16
43	Bias-field-free spin Hall nano-oscillators with an out-of-plane precession mode. Journal of Applied Physics, 2020, 127, .	1.1	15
44	Interplay between strain, quantum confinement, and ferromagnetism in strained ferromagnetic semiconductor (In,Fe)As thin films. Applied Physics Letters, 2014, 104, .	1.5	14
45	Reconfigurable Logic Gates Using Single-Electron Spin Transistors. Japanese Journal of Applied Physics, 2007, 46, 6579-6585.	0.8	13
46	Low power spin-orbit torque switching in sputtered BiSb topological insulator/perpendicularly magnetized CoPt/MgO multilayers on oxidized Si substrate. Applied Physics Letters, 2021, 119, .	1.5	13
47	Spin-orbit torque as a method for field-free detection of in-plane magnetization switching. Applied Physics Letters, 2020, 117, .	1.5	13
48	Nonreciprocal propagation of light without external magnetic fields in a semiconductor waveguide isolator with a MnAs layer. Journal of Magnetism and Magnetic Materials, 2007, 310, 2161-2163.	1.0	11
49	Structural and magnetic properties of $\text{Ge}_{1-x}\text{Mnx}$ thin films grown on Ge (001) substrates. Journal of Applied Physics, 2011, 110, 073903.	1.1	11
50	Resonant tunneling effect and tunneling magnetoresistance in GaMnAs quantum-well double-barrier heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 4184-4187.	0.8	10
51	Three-dimensional nanostructuring in YIG ferrite with femtosecond laser. Optics Letters, 2014, 39, 212.	1.7	10
52	Efficient spin current source using a half-Heusler alloy topological semimetal with back end of line compatibility. Scientific Reports, 2022, 12, 2426.	1.6	10
53	Nanosecond ultralow power spin orbit torque magnetization switching driven by BiSb topological insulator. Applied Physics Letters, 2022, 120, .	1.5	10
54	Spin transport in nanoscale Si-based spin-valve devices. Applied Physics Letters, 2016, 109, .	1.5	9

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55	Minority-spin impurity band in $(\text{In},\text{Fe})\text{As}$: A materials perspective for ferromagnetic semiconductors. <i>Physical Review B</i> , 2021, 103, .	1.1	9
56	Influence of crystal orientation and surface termination on the growth of BiSb thin films on GaAs substrates. <i>Journal of Crystal Growth</i> , 2019, 511, 99-105.	0.7	9
57	Fe delta-doped $(\text{In},\text{Fe})\text{Sb}$ ferromagnetic semiconductor thin films for magnetic-field sensors with ultrahigh Hall sensitivity. <i>Journal of Crystal Growth</i> , 2019, 511, 127-131.	0.7	8
58	Direct observation of the magnetic ordering process in the ferromagnetic semiconductor GaMnAs via soft x-ray magnetic circular dichroism. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	8
59	Spin and orbital magnetic moments of Fe in the n-type ferromagnetic semiconductor $(\text{In},\text{Fe})\text{As}$. <i>Applied Physics Letters</i> , 2014, 105, 032403.	1.5	7
60	Growth and characterization of MnGa thin films with perpendicular magnetic anisotropy on BiSb topological insulator. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	7
61	Improvement of the Effective Spin Hall Angle by Inserting an Interfacial Layer in Sputtered BiSb Topological Insulator (Bottom)/Ferromagnet With In-Plane Magnetization. <i>IEEE Transactions on Magnetics</i> , 2022, 58, 1-4.	1.2	7
62	Electrical tuning of the band alignment and magnetoconductance in an n-type ferromagnetic semiconductor $(\text{In},\text{Fe})\text{As}$ -based spin-Esaki diode. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	6
63	Inhomogeneity-induced high temperature ferromagnetism in n-type ferromagnetic semiconductor $(\text{In},\text{Fe})\text{As}$ grown on vicinal GaAs substrates. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 063002.	0.8	6
64	Angle resolved second harmonic technique for precise evaluation of spin orbit torque in strong perpendicular magnetic anisotropy systems. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	6
65	Inverse spin-valve effect in nanoscale Si-based spin-valve devices. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	5
66	Zero-field topological Hall effect as evidence of ground-state skyrmions at room temperature in BiSb/MnGa bilayers. <i>AIP Advances</i> , 2019, 9, .	0.6	5
67	Magnetization process of the insulating ferromagnetic semiconductor $(\text{Al},\text{Fe})\text{Sb}$. <i>Physical Review B</i> , 2020, 101, .	1.1	5
68	Visible-light electroluminescence in Mn-doped GaAs light-emitting diodes. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	4
69	Optical and Magnetic Microstructures in YIG Ferrite Fabricated by Femtosecond Laser. <i>Journal of Laser Micro Nanoengineering</i> , 2015, 10, 48-52.	0.4	4
70	Effects of laser irradiation on the self-assembly of MnAs nanoparticles in a GaAs matrix. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	3
71	Epitaxial growth and characterization of n-type magnetic semiconductor $(\text{In},\text{Co})\text{As}$. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 04EM05.	0.8	3
72	Planar Nernst effect and Mott relation in $(\text{In},\text{Fe})\text{Sb}$ ferromagnetic semiconductor. <i>Journal of Applied Physics</i> , 2018, 123, 175102.	1.1	3

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73	Spin Hall effect in amorphous YPt alloy. Applied Physics Express, 2021, 14, 043002.	1.1	3
74	Spin transport in fully ferromagnetic p-n junctions. Journal of Applied Physics, 2022, 131, 013902.	1.1	3
75	Effect of stoichiometry on the spin Hall angle of the half-Heusler alloy topological semimetal YPtBi. Japanese Journal of Applied Physics, 2022, 61, 073001.	0.8	3
76	Magnetoresistance enhanced by inelastic cotunneling in a ferromagnetic MnAs nanoparticle sandwiched by nonmagnetic electrodes. Journal of Applied Physics, 2012, 111, 063716.	1.1	2
77	High-field electroluminescence in semiconductor tunnel junctions with a Mn-doped GaAs layer. Journal of Applied Physics, 2014, 116, 113905.	1.1	2
78	Memristive magnetic tunnel junctions with MnAs nanoparticles. Applied Physics Letters, 2015, 107, 122404.	1.5	2
79	Visible-light emission at room temperature in Mn-doped Si light-emitting diodes. Physical Review B, 2016, 93, .	1.1	2
80	Large magnetoresistance and spin-dependent output voltage in a lateral MnGa/GaAs/MnGa spin-valve device. Japanese Journal of Applied Physics, 2020, 59, SGGI08.	0.8	2
81	TM mode optical waveguide isolator with 8.8 dB/mm nonreciprocal propagation induced by ferromagnetic MnAs. , 2006, , .		1
82	Chapter 11 Properties and Functionalities of MnAs/III-V Hybrid and Composite Structures. Semiconductors and Semimetals, 2008, 82, 455-485.	0.4	1
83	Single mode operation of 1.5 μm TM-mode waveguide optical isolators based on the nonreciprocal-loss phenomenon. , 2007, , .		0
84	Spintronics materials and devices - ferromagnetic semiconductors and heterostructures. , 2012, , .		0
85	Continuous visible-light emission at room temperature in Mn-doped GaAs and Si light-emitting diodes (Presentation Recording). , 2015, , .		0
86	High-temperature ferromagnetism in heavily Fe-doped ferromagnetic semiconductor (Ga,Fe)Sb. , 2016, , .		0
87	Lateral silicon spin-valve devices with large spin-dependent magnetoresistance and output voltage. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2019, 10, 025001.	0.7	0
88	III-V and Group-IV-Based Ferromagnetic Semiconductors for Spintronics. , 2019, , 141-170.		0
89	Epitaxial growth and properties of n-type magnetic semiconductor (In,Co)As. , 2013, , .		0
90	Three-dimensional Nanostructuring in YIG Ferrite with Femtosecond Laser. , 2014, , .		0

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91	Magnetic Properties and Intrinsic Ferromagnetism in Narrow-gap Ferromagnetic Semiconductor (Ga,Fe)Sb. , 2015, , .		0
92	Ballistic transport in spin-valve Si channel demonstrates feasibility of nanoscale spin-MOSFETs. Scilight, 2017, 2017, 250004.	0.0	0
93	Conductive BiSb topological insulator with colossal spin Hall effect for ultra-low power spin-orbit-torque switching. , 2018, , .		0
94	Fe-based n-type and p-type narrow-gap III-V ferromagnetic semiconductors with high Curie temperatures (Conference Presentation). , 2018, , .		0