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 g-index
96 all docs	96 docs citations	96 times ranked	1924 citing authors

#	Article	IF	Citations
1	Improvement of the Effective Spin Hall Angle by Inserting an Interfacial Layer in Sputtered BiSb Topological Insulator (Bottom)/Ferromagnet With In-Plane Magnetization. IEEE Transactions on Magnetics, 2022, 58, 1-4.	1.2	7
2	Spin transport in fully ferromagnetic pâ€“n junctions. Journal of Applied Physics, 2022, 131, 013902.	1.1	3
3	Ultrahigh efficient spin orbit torque magnetization switching in fully sputtered topological insulator and ferromagnet multilayers. Scientific Reports, 2022, 12, 2998.	1.6	22
4	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
5	Nanosecond ultralow power spin orbit torque magnetization switching driven by BiSb topological insulator. Applied Physics Letters, 2022, 120, .	1.5	10
6	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
7	Spin Hall effect in amorphous YPt alloy. Applied Physics Express, 2021, 14, 043002.	1.1	3
8	Minority-spin impurity band in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">n</mml:mi></mml:math> -type (In,Fe)As: A materials perspective for ferromagnetic semiconductors. Physical Review B, 2021, 103, .	1.1	9
9	Low power spinâ€“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
10	Magnetic memory driven by topological insulators. Nature Communications, 2021, 12, 6251.	5.8	67
11	Angle resolved second harmonic technique for precise evaluation of spin orbit torque in strong perpendicular magnetic anisotropy systems. Applied Physics Letters, 2021, 119, .	1.5	6
12	Direct observation of the magnetic ordering process in the ferromagnetic semiconductor Ga1â^'xMnxAs via soft x-ray magnetic circular dichroism. Journal of Applied Physics, 2020, 128, .	1.1	8
13	Ultralow power spinâ€“orbit torque magnetization switching induced by a non-epitaxial topological insulator on Si substrates. Scientific Reports, 2020, 10, 12185.	1.6	33
14	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
15	Inhomogeneity-induced high temperature ferromagnetism in n-type ferromagnetic semiconductor (In,Fe)As grown on vicinal GaAs substrates. Japanese Journal of Applied Physics, 2020, 59, 063002.	0.8	6
16	Magnetization process of the insulating ferromagnetic semiconductor (Al,Fe)Sb. Physical Review B, 2020, 101, .	1.1	5
17	Bias-field-free spin Hall nano-oscillators with an out-of-plane precession mode. Journal of Applied Physics, 2020, 127, .	1.1	15
18	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

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19	Spinâ€“orbit torque as a method for field-free detection of in-plane magnetization switching. Applied Physics Letters, 2020, 117, .	1.5	13
20	Spin Hall Effect in Topological Insulators. Journal of the Magnetics Society of Japan, 2020, 44, 137-144.	0.5	20
21	Electronic structure of the high- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>T</mml:mi><mml:mi mathvariant="normal">C</mml:mi></mml:msub></mml:math> ferromagnetic semiconductor (Ga,Fe)Sb: X-ray magnetic circular dichroism and resonance photoemission spectroscopy studies. Physical Review B, 2019, 100, .	1.1	16
22	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
23	Fe delta-doped (In,Fe)Sb ferromagnetic semiconductor thin films for magnetic-field sensors with ultrahigh Hall sensitivity. Journal of Crystal Growth, 2019, 511, 127-131.	0.7	8
24	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
25	Zero-field topological Hall effect as evidence of ground-state skyrmions at room temperature in BiSb/MnGa bilayers. AIP Advances, 2019, 9, .	0.6	5
26	Giant unidirectional spin Hall magnetoresistance in topological insulator â€“ ferromagnetic semiconductor heterostructures. Journal of Applied Physics, 2019, 126, .	1.1	25
27	III-V and Group-IV-Based Ferromagnetic Semiconductors for Spintronics. , 2019, , 141-170.		0
28	Influence of crystal orientation and surface termination on the growth of BiSb thin films on GaAs substrates. Journal of Crystal Growth, 2019, 511, 99-105.	0.7	9
29	Electrical control of ferromagnetism in the n-type ferromagnetic semiconductor (In,Fe)Sb with high Curie temperature. Applied Physics Letters, 2018, 112, .	1.5	32
30	Electrical tuning of the band alignment and magnetoconductance in an n-type ferromagnetic semiconductor (In,Fe)As-based spin-Esaki diode. Applied Physics Letters, 2018, 112, .	1.5	6
31	High-temperature ferromagnetism in new n-type Fe-doped ferromagnetic semiconductor (In,Fe)Sb. Applied Physics Express, 2018, 11, 063005.	1.1	37
32	A conductive topological insulator with large spin Hall effect for ultralow power spinâ€“orbit torque switching. Nature Materials, 2018, 17, 808-813.	13.3	350
33	Planar Nernst effect and Mott relation in (In,Fe)Sb ferromagnetic semiconductor. Journal of Applied Physics, 2018, 123, 175102.	1.1	3
34	Conductive BiSb topological insulator with colossal spin Hall effect for ultra-low power spin-orbit-torque switching. , 2018, , .		0
35	Fe-based n-type and p-type narrow-gap III-V ferromagnetic semiconductors with high Curie temperatures (Conference Presentation). , 2018, , .		0
36	Epitaxial growth and characterization of Bi1-xSbx spin Hall thin films on GaAs(111)A substrates. Applied Physics Letters, 2017, 110, .	1.5	43

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37	Growth and characterization of MnGa thin films with perpendicular magnetic anisotropy on BiSb topological insulator. Journal of Applied Physics, 2017, 122, .	1.1	7
38	Inverse spin-valve effect in nanoscale Si-based spin-valve devices. Journal of Applied Physics, 2017, 122, .	1.1	5
39	Ballistic transport in spin-valve Si channel demonstrates feasibility of nanoscale spin-MOSFETs. Scilight, 2017, 2017, 250004.	0.0	0
40	Spin transport in nanoscale Si-based spin-valve devices. Applied Physics Letters, 2016, 109, .	1.5	9
41	High-temperature ferromagnetism in heavily Fe-doped ferromagnetic semiconductor (Ga,Fe)Sb. Applied Physics Letters, 2016, 108, .	1.5	94
42	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
43	High-temperature ferromagnetism in heavily Fe-doped ferromagnetic semiconductor (Ga,Fe)Sb. , 2016, , .		0
44	Visible-light emission at room temperature in Mn-doped Si light-emitting diodes. Physical Review B, 2016, 93, .	1.1	2
45	Magnetization process of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math>-type ferromagnetic semiconductor (In,Fe)As:Be studied by x-ray magnetic circular dichroism. Physical Review B, 2016, 93, .	1.1	19
46	Magnetic properties and intrinsic ferromagnetism in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mi>Ga</mml:mi><mml:mo>,</mml:mo> semiconductors. Physical Review B, 2015, 92, .	1.1	67
47	Modulation of ferromagnetism in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mi>In</mml:mi><mml:mo>, wells via electrically controlled deformation of the electron wave functions. Physical Review B, 2015, 92, .	1.1	37
48	Spinodal nanodecomposition in semiconductors doped with transition metals. Reviews of Modern Physics, 2015, 87, 1311-1377.	16.4	152
49	Growth and characterization of insulating ferromagnetic semiconductor (Al,Fe)Sb. Applied Physics Letters, 2015, 107, 232405.	1.5	34
50	Memristive magnetic tunnel junctions with MnAs nanoparticles. Applied Physics Letters, 2015, 107, 122404.	1.5	2
51	Continuous visible-light emission at room temperature in Mn-doped GaAs and Si light-emitting diodes (Presentation Recording). , 2015, , .		0
52	Optical and Magnetic Microstructures in YIG Ferrite Fabricated by Femtosecond Laser. Journal of Laser Micro Nanoengineering, 2015, 10, 48-52.	0.4	4
53	Magnetic Properties and Intrinsic Ferromagnetism in Narrow-gap Ferromagnetic Semiconductor (Ga,Fe)Sb. , 2015, , .		0
54	Three-dimensional nanostructuring in YIG ferrite with femtosecond laser. Optics Letters, 2014, 39, 212.	1.7	10

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55	Interplay between strain, quantum confinement, and ferromagnetism in strained ferromagnetic semiconductor (In,Fe)As thin films. Applied Physics Letters, 2014, 104, .	1.5	14
56	Spin and orbital magnetic moments of Fe in the n-type ferromagnetic semiconductor (In,Fe)As. Applied Physics Letters, 2014, 105, 032403.	1.5	7
57	High-field electroluminescence in semiconductor tunnel junctions with a Mn-doped GaAs layer. Journal of Applied Physics, 2014, 116, 113905.	1.1	2
58	Epitaxial growth and characterization of n-type magnetic semiconductor (In,Co)As. Japanese Journal of Applied Physics, 2014, 53, 04EM05.	0.8	3
59	Control of ferromagnetism by manipulating the carrier wavefunction in ferromagnetic semiconductor (In,Fe)As quantum wells. Applied Physics Letters, 2014, 104, 042404.	1.5	26
60	Visible-light electroluminescence in Mn-doped GaAs light-emitting diodes. Applied Physics Letters, 2014, 104, .	1.5	4
61	Electronic Excitations of a Magnetic Impurity State in the Diluted Magnetic Semiconductor (Ga,Mn)As. Physical Review Letters, 2014, 112, 107203.	2.9	22
62	(Ga,Fe)Sb: A p-type ferromagnetic semiconductor. Applied Physics Letters, 2014, 105, .	1.5	43
63	Recent progress in III-V based ferromagnetic semiconductors: Band structure, Fermi level, and tunneling transport. Applied Physics Reviews, 2014, 1, 011102.	5.5	96
64	Three-dimensional Nanostructuring in YIG Ferrite with Femtosecond Laser. , 2014, , .		0
65	Epitaxial growth and properties of n-type magnetic semiconductor (In,Co)As. , 2013, , .		0
66	Growth and characterization of n-type electron-induced ferromagnetic semiconductor (In,Fe)As. Applied Physics Letters, 2012, 101, .	1.5	78
67	Effects of laser irradiation on the self-assembly of MnAs nanoparticles in a GaAs matrix. Applied Physics Letters, 2012, 101, .	1.5	3
68	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
69	Crystalline anisotropic magnetoresistance with two-fold and eight-fold symmetry in (In,Fe)As ferromagnetic semiconductor. Applied Physics Letters, 2012, 100, .	1.5	42
70	Spintronics materials and devices - ferromagnetic semiconduc-tors and heterostructures. , 2012, , .		0
71	Magnetoresistance enhanced by inelastic cotunneling in a ferromagnetic MnAs nanoparticle sandwiched by nonmagnetic electrodes. Journal of Applied Physics, 2012, 111, 063716.	1.1	2
72	Phase decomposition diagram of magnetic alloy semiconductor. Journal of Applied Physics, 2011, 109, 073919.	1.1	24

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73	Structural and magnetic properties of Ge1â^'xMnx thin films grown on Ge (001) substrates. Journal of Applied Physics, 2011, 110, 073903.	1.1	11
74	Long spin-relaxation time in a single metal nanoparticle. Nature Nanotechnology, 2010, 5, 593-596.	15.6	49
75	Valence-Band Structure of the Ferromagnetic Semiconductor GaMnAs Studied by Spin-Dependent Resonant Tunneling Spectroscopy. Physical Review Letters, 2010, 104, 167204.	2.9	42
76	Electromotive force and huge magnetoresistance in magnetic tunnel junctions. Nature, 2009, 458, 489-492.	13.7	164
77	GaMnAs-based magnetic tunnel junctions with an AlMnAs barrier. Applied Physics Letters, 2009, 95, 242503.	1.5	29
78	Chapter 11 Properties and Functionalities of MnAs/IIIâ€"V Hybrid and Composite Structures. Semiconductors and Semimetals, 2008, 82, 455-485.	0.4	1
79	Spin-valve effect by ballistic transport in ferromagnetic metal (MnAs)/semiconductor (GaAs) hybrid heterostructures. Physical Review B, 2008, 77, .	1.1	18
80	Nature of Magnetic Coupling between Mn Ions in As-Grown<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ga</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi> by X-Ray Magnetic Circular Dichroism. Physical Review Letters, 2008, 100, 247202.	2.9	41
81	Reconfigurable Logic Gates Using Single-Electron Spin Transistors. Japanese Journal of Applied Physics, 2007, 46, 6579-6585.	0.8	13
82	Waveguide-Based 1.5 Âµm Optical Isolator Based on Magneto-Optic Effect in Ferromagnetic MnAs. Japanese Journal of Applied Physics, 2007, 46, 205-210.	0.8	23
83	Single mode operation of 1.5 μm TM-mode waveguide optical isolators based on the nonreciprocal-loss phenomenon. , 2007, , .		0
84	Quantum size effect and tunneling magnetoresistance in ferromagnetic-semiconductor quantum heterostructures. Physical Review B, 2007, 75, .	1.1	62
85	154-Î¼m TM-mode waveguide optical isolator based on the nonreciprocal-loss phenomenon: device design to reduce insertion loss. Applied Optics, 2007, 46, 5784.	2.1	34
86	Spin-dependent transport properties in GaMnAs-based spin hot-carrier transistors. Applied Physics Letters, 2007, 90, 162505.	1.5	20
87	Magnetic properties of MnAs nanoclusters embedded in a GaAs semiconductor matrix. Journal of Magnetism and Magnetic Materials, 2007, 310, 1932-1934.	1.0	25
88	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
89	Semiconductor waveguide optical isolator based on nonreciprocal loss induced by ferromagnetic MnAs. Applied Physics Letters, 2006, 89, 021104.	1.5	43
90	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

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91	Spin polarized tunneling in IIIâ€“V-based heterostructures with a ferromagnetic MnAs thin film and GaAs:MnAs nanoclusters. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 416-418.	1.3	20
92	TM mode optical waveguide isolator with 8.8 dB/mm nonreciprocal propagation induced by ferromagnetic MnAs. , 2006, , .		1
93	Tunneling magnetoresistance of MnAs thin film/GaAsâˆ•AlAsâˆ•GaAs:MnAs nanoclusters and its AlAs barrier thickness dependence. Applied Physics Letters, 2006, 89, 242106.	1.5	21
94	Tunneling magnetoresistance in GaMnAsâˆ•AlAsâˆ•InGaAsâˆ•AlAsâˆ•GaMnAs double-barrier magnetic tunnel junctions. Applied Physics Letters, 2005, 87, 012105.	1.5	32