

# Vanessa Sih

## List of Publications by Year in descending order

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62  
papers

2,040  
citations

430874

18  
h-index

233421

45  
g-index

64  
all docs

64  
docs citations

64  
times ranked

2228  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial imaging of the spin Hall effect and current-induced polarization in two-dimensional electron gases. <i>Nature Physics</i> , 2005, 1, 31-35.	16.7	415
2	Low-threshold continuous-wave Raman silicon laser. <i>Nature Photonics</i> , 2007, 1, 232-237.	31.4	259
3	A cascaded silicon Raman laser. <i>Nature Photonics</i> , 2008, 2, 170-174.	31.4	155
4	Demonstration of wavelength conversion at 40 Gb/s data rate in silicon waveguides. <i>Optics Express</i> , 2006, 14, 11721.	3.4	150
5	Generating Spin Currents in Semiconductors with the Spin Hall Effect. <i>Physical Review Letters</i> , 2006, 97, 096605.	7.8	123
6	Suppression of Spin Relaxation in Submicron InGaAs Wires. <i>Physical Review Letters</i> , 2006, 97, 036805.	7.8	115
7	Room-temperature spin coherence in ZnO. <i>Applied Physics Letters</i> , 2005, 86, 232507.	3.3	114
8	Long-Lived Hole Spin/Valley Polarization Probed by Kerr Rotation in Monolayer WSe <sub>2</sub> . <i>Nano Letters</i> , 2016, 16, 5010-5014.	9.1	80
9	Epitaxial growth and magnetic properties of EuO on (001) Si by molecular-beam epitaxy. <i>Applied Physics Letters</i> , 2003, 83, 975-977.	3.3	76
10	Enhanced light emission in photonic crystal nanocavities with Erbium-doped silicon nanocrystals. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	67
11	Dimensionally constrained D'yakonov-Perel' spin relaxation in n-InGaAs channels: transition from 2D to 1D. <i>New Journal of Physics</i> , 2007, 9, 342-342.	2.9	32
12	Current-Induced Spin Polarization in Anisotropic Spin-Orbit Fields. <i>Physical Review Letters</i> , 2014, 112, 056601.	7.8	30
13	Raman amplification of 40 Gb/s data in low-loss silicon waveguides. <i>Optics Express</i> , 2007, 15, 357.	3.4	28
14	Spin lifetime measurements in GaAsBi thin films. <i>Applied Physics Letters</i> , 2013, 102, 022420.	3.3	26
15	The disintegration of GaSb/GaAs nanostructures upon capping. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	26
16	Control of electron-spin coherence using Landau level quantization in a two-dimensional electron gas. <i>Physical Review B</i> , 2004, 70, .	3.2	23
17	Mechanical control of spin-orbit splitting in GaAs and In <sub>0.04</sub> Ga <sub>0.96</sub> As epilayers. <i>Physical Review B</i> , 2006, 73, .	3.2	22
18	Mapping spin-orbit splitting in strained (In,Ga)As epilayers. <i>Physical Review B</i> , 2010, 82, .	3.2	22

#	ARTICLE	IF	CITATIONS
19	Electrical manipulation of spin-orbit coupling in semiconductor heterostructures. Journal of Applied Physics, 2007, 101, 081710.	2.5	19
20	Surface plasmon resonances of Ga nanoparticle arrays. Applied Physics Letters, 2012, 101, 081905.	3.3	17
21	Photoluminescence Imaging of Focused Ion Beam Induced Individual Quantum Dots. Nano Letters, 2011, 11, 1040-1043.	9.1	15
22	Dynamic nuclear polarization from current-induced electron spin polarization. Physical Review B, 2014, 90, .	3.2	15
23	Analysis of defect-free GaSb/GaAs(001) quantum dots grown on the Sb-terminated (2 $\times$ 8) surface. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, .	1.2	14
24	Photoluminescence of patterned arrays of vertically stacked InAs/GaAs quantum dots. Solid State Communications, 2011, 151, 269-271.	1.9	12
25	Room temperature electron spin coherence in telecom-wavelength quaternary quantum wells. Applied Physics Letters, 2006, 89, 142104.	3.3	11
26	Gate control of the spin mobility through the modification of the spin-orbit interaction in two-dimensional systems. Physical Review B, 2017, 95, .	3.2	11
27	Tunable ring resonators for silicon Raman laser and amplifier applications. , 2008, , .		9
28	Lateral patterning of multilayer InAs/GaAs(001) quantum dot structures by <i>in vacuo</i> focused ion beam. Nanotechnology, 2012, 23, 135401.	2.6	9
29	Optimizing nanophotonic cavity designs with the gravitational search algorithm. Optics Express, 2013, 21, 20831.	3.4	9
30	Height stabilization of GaSb/GaAs quantum dots by Al-rich capping. APL Materials, 2014, 2, 096111.	5.1	9
31	Optical and electronic manipulation of spin coherence in semiconductors. Proceedings of the IEEE, 2003, 91, 752-760.	21.3	8
32	Time-Resolved Two-Pulse Excitation of Quantum Dots Coupled to a Photonic Crystal Cavity in the Purcell Regime. Physical Review Letters, 2013, 110, 013602.	7.8	8
33	Ga nanoparticle-enhanced photoluminescence of GaAs. Applied Physics Letters, 2013, 103, .	3.3	7
34	Atom probe tomography analysis of different modes of Sb intermixing in GaSb quantum dots and wells. Applied Physics Letters, 2013, 103, .	3.3	7
35	$g$ -factor modification in a bulk InGaAs epilayer by an in-plane electric field. Physical Review B, 2015, 91, .	3.2	7
36	Structural differences between capped GaSb nanostructures grown by Stranski-Krastanov and droplet epitaxy growth modes. Journal of Applied Physics, 2017, 121, 034301.	2.5	7

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37	A Hall of Spin. Physics World, 2005, 18, 33-36.	0.0	6
38	Current-induced spin polarization in InGaAs and GaAs epilayers with varying doping densities. Physical Review B, 2017, 96, .	3.2	6
39	Electrical control of spin relaxation anisotropy during drift transport in a two-dimensional electron gas. Physical Review B, 2020, 102, .	3.2	6
40	Dynamic nuclear polarization by optical Stark effect in periodically pumped gallium arsenide. Physical Review B, 2020, 101, .	3.2	6
41	Monolithic integrated ring resonator Raman silicon laser and amplifier. , 2007, , .		5
42	Electron spin polarization-based integrated photonic devices. Optics Express, 2011, 19, 14845.	3.4	5
43	Anisotropic spin dephasing of impurity-bound electron spins in ZnO. Applied Physics Letters, 2015, 106, 012403.	3.3	5
44	Phase effects due to previous pulses in time-resolved Faraday rotation measurements. Journal of Applied Physics, 2015, 117, 063906.	2.5	5
45	Gunn threshold voltage characterization in GaAs devices with wedge-shaped tapering. Journal of Applied Physics, 2020, 128, 074502.	2.5	5
46	Robustness of n-GaAs carrier spin properties to 5â€‰%MeV proton irradiation. Applied Physics Letters, 2015, 106, .	3.3	4
47	Formation of embedded plasmonic Ga nanoparticle arrays and their influence on GaAs photoluminescence. Journal of Applied Physics, 2017, 122, .	2.5	4
48	Observation of magnetic field sweep direction dependent dynamic nuclear polarization under periodic optical electron spin pumping. Physical Review B, 2019, 99, .	3.2	4
49	Ground-state exciton emission of InAs quantum dots produced by focused-ion-beam-directed nucleation. Journal of Luminescence, 2013, 133, 117-120.	3.1	3
50	Resonant and time-resolved spin noise spectroscopy. Applied Physics Letters, 2015, 107, 182102.	3.3	3
51	The effect of doping on low temperature growth of high quality GaAs nanowires on polycrystalline films. Nanotechnology, 2016, 27, 495605.	2.6	3
52	Effects of pre-determined lateral separation on quantum dot size and dissolution. Applied Physics Letters, 2013, 102, 182105.	3.3	2
53	Amplifying optical rotation using a coupled waveguide and ring resonator. Optics Express, 2015, 23, 6050.	3.4	2
54	Spatially-resolved measurements of spin valley polarization in MOCVD-grown monolayer WSe2. Optics Express, 2021, 29, 17269.	3.4	2

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55	Nuclear-induced frequency focusing and Overhauser field distributions in periodically pumped gallium arsenide. Physical Review B, 2021, 104, .	3.2	2
56	Illumination-induced modulation of conductivity and Gunn oscillation properties in epitaxial GaAs. Journal of Applied Physics, 2021, 129, 095701.	2.5	1
57	A monolithic integrated low-threshold Raman silicon laser. , 2008, , .		0
58	Enhanced erbium emission in photonic crystal nanocavities. , 2008, , .		0
59	Quantum dot-photonic crystal chips for quantum information processing. Proceedings of SPIE, 2008, , .	0.8	0
60	Analyzing pattern retention for multilayer focused ion beam induced quantum dot structures. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 031208.	1.2	0
61	Time-resolved Nonlinear Dynamics of Quantum Dots Coupled to a Photonic Crystal Cavity. , 2013, , .		0
62	Effect of modified periodic waveforms on current-induced spin polarization measurements. AIP Advances, 2018, 8, .	1.3	0