

Chris J Palmström

List of Publications by Year in descending order

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145
papers

6,254
citations

76322

40
h-index

71682

76
g-index

149
all docs

149
docs citations

149
times ranked

5561
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical detection of spin transport in lateral ferromagnet-semiconductor devices. Nature Physics, 2007, 3, 197-202.	16.7	732
2	Planar superconducting resonators with internal quality factors above one million. Applied Physics Letters, 2012, 100, .	3.3	341
3	Imaging Spin Transport in Lateral Ferromagnet/Semiconductor Structures. Science, 2005, 309, 2191-2195.	12.6	298
4	Two-dimensional epitaxial superconductor-semiconductor heterostructures: A platform for topological superconducting networks. Physical Review B, 2016, 93, .	3.2	211
5	Zero-Energy Modes from Coalescing Andreev States in a Two-Dimensional Semiconductor-Superconductor Hybrid Platform. Physical Review Letters, 2017, 119, 176805.	7.8	182
6	Electrical Detection of Spin Accumulation at a Ferromagnet-Semiconductor Interface. Physical Review Letters, 2006, 96, 176603.	7.8	173
7	Spin injection from the Heusler alloy Co ₂ MnGe into Al _{0.1} Ga _{0.9} As-GaAs heterostructures. Applied Physics Letters, 2005, 86, 102107.	3.3	153
8	Quantized conductance doubling and hard gap in a two-dimensional semiconductor-superconductor heterostructure. Nature Communications, 2016, 7, 12841.	12.8	146
9	Spin injection and relaxation in ferromagnet-semiconductor heterostructures. Physical Review B, 2005, 71, .	3.2	141
10	Self-assembled ErAs islands in GaAs: Growth and subpicosecond carrier dynamics. Applied Physics Letters, 1999, 75, 3548-3550.	3.3	124
11	Epitaxial Heusler Alloys: New Materials for Semiconductor Spintronics. MRS Bulletin, 2003, 28, 725-728.	3.5	110
12	Heusler compounds and spintronics. Progress in Crystal Growth and Characterization of Materials, 2016, 62, 371-397.	4.0	103
13	Shape memory and ferromagnetic shape memory effects in single-crystal Ni ₂ MnGa thin films. Journal of Applied Physics, 2004, 95, 2593-2600.	2.5	102
14	Selective-Area-Grown Semiconductor-Superconductor Hybrids: A Basis for Topological Networks. Physical Review Letters, 2018, 121, 147701.	7.8	83
15	Electric field tunable superconductor-semiconductor coupling in Majorana nanowires. New Journal of Physics, 2018, 20, 103049.	2.9	81
16	Anomalous magnetotransport properties of epitaxial full Heusler alloys. Applied Physics Letters, 2002, 80, 4798-4800.	3.3	78
17	Conductance-Matrix Symmetries of a Three-Terminal Hybrid Device. Physical Review Letters, 2020, 124, 036802.	7.8	72
18	Dynamic Nuclear Polarization by Electrical Spin Injection in Ferromagnet-Semiconductor Heterostructures. Physical Review Letters, 2003, 91, 036602.	7.8	71

#	ARTICLE	IF	CITATIONS
19	Fast Electrical Control of Single Electron Spins in Quantum Dots with Vanishing Influence from Nuclear Spins. Physical Review Letters, 2014, 113, 267601.	7.8	70
20	Superconducting, insulating and anomalous metallic regimes in a gated two-dimensional semiconductor superconductor array. Nature Physics, 2018, 14, 1138-1144.	16.7	68
21	Anomalous Fraunhofer interference in epitaxial superconductor-semiconductor Josephson junctions. Physical Review B, 2017, 95, .	3.2	63
22	Room temperature deposition of sputtered TiN films for superconducting coplanar waveguide resonators. Superconductor Science and Technology, 2014, 27, 015009.	3.5	58
23	Ultrawide thermal free-carrier tuning of dielectric antennas coupled to epsilon-near-zero substrates. Nature Communications, 2017, 8, 472.	12.8	57
24	Robust micromagnet design for fast electrical manipulations of single spins in quantum dots. Applied Physics Express, 2015, 8, 084401.	2.4	54
25	Exchange biasing of the ferromagnetic semiconductor Ga $_{1-x}$ Mn $_x$ As. Applied Physics Letters, 2004, 85, 1556-1558.	3.3	53
26	Electrical Measurement of the Direct Spin Hall Effect in FeIn . Physical Review Letters, 2010, 105, 156602.	7.8	53
27	Local Hanle-effect studies of spin drift and diffusion in n:GaAs epilayers and spin-transport devices. New Journal of Physics, 2007, 9, 347-347.	2.9	51
28	Observation of a topologically non-trivial surface state in half-Heusler PtLuSb (001) thin films. Nature Communications, 2016, 7, 11993.	12.8	50
29	Parity-preserving and magnetic field resilient superconductivity in InSb nanowires with Sn shells. Science, 2021, 372, 508-511.	12.6	50
30	Spin injection and detection up to room temperature in Heusler alloy $\text{In}_{1-x}\text{Ga}_x\text{As}$ spin valves. Physical Review B, 2016, 94, .	12.2	49
31	Parity transitions in the superconducting ground state of hybrid InSb/Al Coulomb islands. Nature Communications, 2018, 9, 4801.	12.8	49
32	Epitaxial growth of ferromagnetic Ni $_2$ MnGa on GaAs(001) using NiGa interlayers. Journal of Applied Physics, 2000, 88, 7357-7359.	2.5	48
33	Selective-area chemical beam epitaxy of in-plane InAs one-dimensional channels grown on InP(001), InP(111)B, and InP(011) surfaces. Physical Review Materials, 2019, 3, .	2.4	48
34	Optical pumping in ferromagnet-semiconductor heterostructures: Magneto-optics and spin transport. Physical Review B, 2001, 64, .	3.2	47
35	Bias-controlled sensitivity of ferromagnet/semiconductor electrical spin detectors. Physical Review B, 2009, 80, .	3.2	47
36	Spin injection from perpendicular magnetized ferromagnetic $\hat{\Gamma}$ -MnGa into (Al,Ga)As heterostructures. Applied Physics Letters, 2006, 89, 112511.	3.3	45

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37	Transport studies in a gate-tunable three-terminal Josephson junction. <i>Physical Review B</i> , 2020, 101, .	3.2	44
38	Hyperfine interactions and spin transport in ferromagnet-semiconductor heterostructures. <i>Physical Review B</i> , 2009, 80, .	3.2	43
39	Spin injection across the Fe/GaAs interface: Role of interfacial ordering. <i>Physical Review B</i> , 2009, 80, .	3.2	40
40	Epitaxial growth of ferromagnetic Ni ₂ MnIn on (001) InAs. <i>Applied Physics Letters</i> , 2001, 79, 1003-1005.	3.3	39
41	Transport Studies of Epi-Al/InAs Two-Dimensional Electron Gas Systems for Required Building-Blocks in Topological Superconductor Networks. <i>Nano Letters</i> , 2019, 19, 3083-3090.	9.1	38
42	In-plane selective area InSb/Al nanowire quantum networks. <i>Communications Physics</i> , 2020, 3, .	5.3	37
43	End-to-end correlated subgap states in hybrid nanowires. <i>Physical Review B</i> , 2019, 100, .	3.2	36
44	Interfacial reactions of Mn/GaAs thin films. <i>Applied Physics Letters</i> , 2004, 84, 3145-3147.	3.3	34
45	Remarkable strain-induced magnetic anisotropy in epitaxial Co ₂ MnGa (001) films. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 286, 340-345.	2.3	30
46	Electron spin dynamics and hyperfine interactions in Fe _{0.1} Ga _{0.9} As/GaAs spin injection heterostructures. <i>Physical Review B</i> , 2005, 72, .	3.2	30
47	Embedded assembly mechanism of stable metal nanocrystals on semiconductor surfaces. <i>Physical Review B</i> , 2006, 73, .	3.2	30
48	Mirage Andreev Spectra Generated by Mesoscopic Leads in Nanowire Quantum Dots. <i>Physical Review Letters</i> , 2018, 121, 127705.	7.8	27
49	Interplay of large two-magnon ferromagnetic resonance linewidths and low Gilbert damping in Heusler thin films. <i>Physical Review B</i> , 2020, 101, .	3.2	27
50	Materials for emergent silicon-integrated optical computing. <i>Journal of Applied Physics</i> , 2021, 130, 070907.	2.5	27
51	Spin accumulation near Fe/GaAs (001) interfaces: The role of semiconductor band structure. <i>Physical Review B</i> , 2011, 84, .	3.2	26
52	Surface-Mediated Tunable Self-Assembly of Single Crystal Semimetallic ErSb/GaSb Nanocomposite Structures. <i>Nano Letters</i> , 2013, 13, 2895-2901.	9.1	25
53	Influence of the magnetic proximity effect on spin-orbit torque efficiencies in ferromagnet/platinum bilayers. <i>Physical Review B</i> , 2018, 97, .	3.2	24
54	Gating of high-mobility InAs metamorphic heterostructures. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	23

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55	Superconducting vanadium/indium-arsenide hybrid nanowires. <i>Nanotechnology</i> , 2019, 30, 294005.	2.6	22
56	Optical and electrical spin injection and spin transport in hybrid Fe/GaAs devices. <i>Journal of Applied Physics</i> , 2007, 101, 081716.	2.5	20
57	Demonstration of gate control of spin splitting in a high-mobility InAs/AlSb two-dimensional electron gas. <i>Physical Review B</i> , 2016, 93, .	3.2	20
58	Low magnetic damping and large negative anisotropic magnetoresistance in half-metallic $\text{Co}_{2-x}\text{Mn}_x\text{Si}$ Heusler alloy films grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	20
59	Full parity phase diagram of a proximitized nanowire island. <i>Physical Review B</i> , 2021, 104, .	3.2	20
60	Epitaxy of Aluminium Films on Semiconductors by Ionized Cluster Beam. <i>Materials Research Society Symposia Proceedings</i> , 1984, 37, 401.	0.1	19
61	Embedded growth mode of thermodynamically stable metallic nanoparticles on III-V semiconductors. <i>Applied Physics Letters</i> , 2006, 88, 243117.	3.3	19
62	Phase formation in the thin film Fe/GaAs system. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	18
63	Growth and characterization of TbAs:GaAs nanocomposites. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	1.2	18
64	Photoluminescence lineshape and dynamics of localized excitonic transitions in InAsP epitaxial layers. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	18
65	Growth and transport properties of epitaxial lattice matched half Heusler $\text{CoTiSb}/\text{InAlAs}/\text{InP}(001)$ heterostructures. <i>Applied Physics Letters</i> , 2014, 104, 022109.	3.3	18
66	A simple electron counting model for half-Heusler surfaces. <i>Science Advances</i> , 2018, 4, eaar5832.	10.3	18
67	$\text{GaAs}(111)\text{B}$ (2×2) $\sqrt{3} \times \sqrt{3}$ surface reconstruction. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 1597.	1.6	17
68	Exchange biasing of the ferromagnetic semiconductor $(\text{Ga},\text{Mn})\text{As}$ by MnO (invited). <i>Journal of Applied Physics</i> , 2005, 97, 10D304.	2.5	17
69	Materials considerations for forming the topological insulator phase in InAs/GaSb heterostructures. <i>Physical Review Materials</i> , 2018, 2, .	2.4	17
70	Dielectric functions and electronic structure of $\text{InAs}_x\text{P}_{1-x}$ films on InP. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	16
71	An apparent metal-insulator transition in high-mobility two-dimensional InAs heterostructures. <i>Physical Review B</i> , 2014, 90, .	3.2	16
72	Surface and electronic structure of epitaxial $\text{PtLuSb}(001)$ thin films. <i>Applied Physics Letters</i> , 2014, 104, 201603.	3.3	16

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73	Limits to mobility in InAs quantum wells with nearly lattice-matched barriers. <i>Physical Review B</i> , 2016, 94, .	3.2	16
74	Dynamic detection of electron spin accumulation in ferromagnet-semiconductor devices by ferromagnetic resonance. <i>Nature Communications</i> , 2016, 7, 10296.	12.8	16
75	Proximity Effect Transfer from NbTi into a Semiconductor Heterostructure via Epitaxial Aluminum. <i>Nano Letters</i> , 2017, 17, 1200-1203.	9.1	15
76	Nuclear magnetic resonance in a ferromagnet-semiconductor heterostructure. <i>Applied Physics Letters</i> , 2003, 83, 3335-3337.	3.3	14
77	Phase behavior of thin film Mn-GaAs interfacial reactions. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2005, 23, 1752.	1.6	14
78	Structural and transport properties of epitaxial PrNiO ₃ thin films grown by molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 2013, 366, 51-54.	1.5	13
79	Epitaxial growth and surface studies of the Half Heusler compound NiTiSn (001). <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, .	1.2	13
80	Giant Magnetoresistance of Self-Assembled ErAs Islands in GaAs. <i>Materials Research Society Symposia Proceedings</i> , 1997, 475, 251.	0.1	12
81	Studies of scattering mechanisms in gate tunable InAs/(Al,Ga)Sb two dimensional electron gases. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	12
82	Fourfold symmetric anisotropic magnetoresistance in half-metallic Co ₂ MnSi Heusler alloy thin films. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 063001.	1.5	12
83	Weak antilocalization in quasi-two-dimensional electronic states of epitaxial LuSb thin films. <i>Physical Review B</i> , 2019, 99, .	3.2	12
84	Contribution of top barrier materials to high mobility in near-surface InAs quantum wells grown on GaSb(001). <i>Physical Review Materials</i> , 2019, 3, .	2.4	12
85	Martensite transformation of epitaxial NiTi films. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	11
86	Surface reconstructions and transport of epitaxial PtLuSb (001) thin films grown by MBE. <i>Journal of Crystal Growth</i> , 2016, 436, 145-149.	1.5	11
87	Dynamics of photoexcited carriers and spins in InAsP ternary alloys. <i>Applied Physics Letters</i> , 2013, 102, 222102.	3.3	10
88	Structural and electronic properties of molecular beam epitaxially grown Ni _{1-x} TiSn films. <i>Journal of Crystal Growth</i> , 2017, 467, 71-76.	1.5	10
89	Reduced interface spin polarization by antiferromagnetically coupled Mn segregated to the C _o MnSi/GaAs (001) interface. <i>Physical Review B</i> , 2018, 97, .	3.2	10
90	Horizontal Heterojunction Integration via Template-Assisted Selective Epitaxy. <i>Crystal Growth and Design</i> , 2019, 19, 7030-7035.	3.0	10

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109	Cryogenic microwave loss in epitaxial Al/GaAs/Al trilayers for superconducting circuits. Journal of Applied Physics, 2021, 129, .	2.5	7
110	Controlling magnetoresistance by tuning semimetallicity through dimensional confinement and heteroepitaxy. Science Advances, 2021, 7, .	10.3	7
111	Antiphase Boundary Free InP Microridges on (001) Silicon by Selective Area Heteroepitaxy. Crystal Growth and Design, 2020, 20, 7761-7770.	3.0	7
112	Tailoring commensurability of hBN/graphene heterostructures using substrate morphology and epitaxial growth conditions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 051503.	2.1	6
113	Mechanical Construction of Semiconductor Band Gaps. IEEE Journal of Quantum Electronics, 2010, 46, 1261-1267.	1.9	5
114	Thermoelectric properties of single crystal Sc _{1-x} Er _x As:InGaAs nanocomposites. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, .	1.2	5
115	Lattice distortion in single crystal rare-earth arsenide/GaAs nanocomposites. Applied Physics Letters, 2014, 104, .	3.3	5
116	Interface formation of epitaxial MgO/Co ₂ MnSi(001) structures: Elemental segregation and oxygen migration. Journal of Magnetism and Magnetic Materials, 2017, 444, 383-389.	2.3	5
117	Supercurrent parity meter in a nanowire Cooper pair transistor. Science Advances, 2022, 8, eabm9896.	10.3	5
118	Growth of a-plane ZnO Thin Films on r-plane Sapphire by Plasma-assisted MBE. Materials Research Society Symposia Proceedings, 2005, 891, 1.	0.1	4
119	Epitaxial Growth and Characterization of Single Crystal Ferromagnetic Shape Memory Co ₂ NiGa Films. Ferroelectrics, 2006, 342, 35-42.	0.6	4
120	Comment on "High-resolution core-level photoemission study on GaAs(111)B surfaces" [J. Appl. Phys. 101, 043516 (2007)]. Journal of Applied Physics, 2009, 105, 056106.	2.5	4
121	Growth of epitaxial NiTi shape memory alloy films on GaAs(001) and evidence of martensitic transformation. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2011, 29, .	1.2	4
122	THz-range Faraday rotation in the Weyl semimetal candidate Co ₂ TiGe. Journal of Applied Physics, 2020, 128, .	2.5	4
123	Self-assembled CoAs nanostructures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1760.	1.6	3
124	Dielectric properties of InAsP alloy thin films and evaluation of direct- and reciprocal-space methods of determining critical-point parameters. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 884-887.	1.8	3
125	Growth, structural, and magnetic properties of single-crystal full-Heusler Co ₂ TiGe thin films. Journal of Applied Physics, 2017, 121, .	2.5	3
126	Evaluation of the vortex core size in gate-tunable Josephson junctions in Corbino geometry. Physical Review B, 2020, 102, .	3.2	3

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127	Controlling facets and defects of InP nanostructures in confined epitaxial lateral overgrowth. Physical Review Materials, 2020, 4, .	2.4	3
128	In-Situ Regrowth of GaAs Through Controlled Phase Transformations and Reactions of Thin Films on GaAs. Materials Research Society Symposia Proceedings, 1998, 514, 455.	0.1	2
129	Tunable magnetization reversal in epitaxial bcc Fe _{1-x} Cox films on vicinal surfaces. Journal of Applied Physics, 2003, 93, 8256-8258.	2.5	2
130	Nonequilibrium phases in epitaxial Mn ²⁺ /GaAs interfacial reactions. Journal of Vacuum Science & Technology B, 2006, 24, 2018.	1.3	2
131	Knight shift and nuclear spin relaxation in Fe/n-GaAs heterostructures. Physical Review B, 2015, 92, .	3.2	2
132	Nanometer scale structural and compositional inhomogeneities of half-Heusler CoTi _{1-x} Fe _x Sb thin films. Journal of Applied Physics, 2019, 125, 205301.	2.5	2
133	Epitaxial Al/GaAs/Al tri-layers fabricated using a novel wafer-bonding technique. Journal of Applied Physics, 2020, 128, 115301.	2.5	2
134	Growth of γ -alumina on crystallographically distinct aluminium substrates. Journal of Materials Science, 1989, 24, 515-522.	3.7	1
135	Optical Properties of AlGaSb Alloys Grown by MBE. AIP Conference Proceedings, 2005, , .	0.4	1
136	Time resolved magneto-optical studies of InAsP ternary alloys. , 2014, , .		1
137	Electronic structure of epitaxial half-Heusler Co _{1-x} Ni _x TiSb across the semiconductor to metal transition. Applied Physics Letters, 2018, 113, 092103.	3.3	1
138	Gated Magnetotransport in δ -Sn Thin Films on CdTe. Journal of Electronic Materials, 2021, 50, 6329-6336.	2.2	1
139	Mechanism for embedded in-plane self-assembled nanowire formation. Physical Review Materials, 2020, 4, .	2.4	1
140	Identifying the fingerprints of topological states by tuning magnetoresistance in a semimetal: The case of topological half-Heusler $\text{Pt}_{1-x}\text{Mn}_x$. Physical Review Materials, 2021, 5, .	2.4	1
141	Substrate Effects on Yield Point Phenomena in Epitaxial Thin Films. Materials Research Society Symposia Proceedings, 1998, 522, 89.	0.1	0
142	TEM Characterization of Thin, Epitaxial Ni ₂ MnGa films on GaAs. Microscopy and Microanalysis, 2002, 8, 302-303.	0.4	0
143	Confined lateral epitaxial overgrowth of InGaAs: Mechanisms and electronic properties. Journal of Applied Physics, 2021, 130, 085302.	2.5	0
144	Optical and Electrical Detection of Spin-Polarized Transport. , 2006, , .		0

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145	Triggering phase-coherent spin packets by pulsed electrical spin injection across an Fe/GaAs Schottky barrier. Physical Review B, 2021, 104, .	3.2	0