Joon Sue Lee

List of Publications by Year in Descending Order

38 papers	2,637 citations	19 h-index	40 g-index
40 ext. papers	3,171 ext. citations	9.7 avg, IF	4.69 L-index

#	Paper	IF	Citations
38	Supercurrent parity meter in a nanowire Cooper pair transistor.. *Science Advances*, **2022**, 8, eabm9896	14.3	0
37	Parity-preserving and magnetic field-resilient superconductivity in InSb nanowires with Sn shells. *Science*, **2021**, 372, 508-511	33.3	13
36	Topological materials by molecular beam epitaxy. *Journal of Applied Physics*, **2020**, 128, 210902	2.5	12
35	Evaluation of the vortex core size in gate-tunable Josephson junctions in Corbino geometry. *Physical Review B*, **2020**, 102,	3.3	1
34	Transport studies in a gate-tunable three-terminal Josephson junction. *Physical Review B*, **2020**, 101,	3.3	13
33	Conductance-Matrix Symmetries of a Three-Terminal Hybrid Device. *Physical Review Letters*, **2020**, 124, 036802	7.4	22
32	In-plane selective area InSb□Al nanowire quantum networks. *Communications Physics*, **2020**, 3,	5.4	18
31	Large-scale interlayer rotations and Te grain boundaries in (Bi,Sb)2Te3 thin films. *Physical Review Materials*, **2020**, 4,	3.2	8
30	Adsorption-controlled growth of MnTe(Bi2Te3)n by molecular beam epitaxy exhibiting stoichiometry-controlled magnetism. *Physical Review Materials*, **2020**, 4,	3.2	7
29	Strong electron-electron interactions of a Tomonaga-Luttinger liquid observed in InAs quantum wires. *Physical Review B*, **2019**, 99,	3.3	9
28	Transport Studies of Epi-Al/InAs Two-Dimensional Electron Gas Systems for Required Building-Blocks in Topological Superconductor Networks. *Nano Letters*, **2019**, 19, 3083-3090	11.5	15
27	On the understanding of current-induced spin polarization of three-dimensional topological insulators. *Nature Communications*, **2019**, 10, 1461	17.4	7
26	Contribution of top barrier materials to high mobility in near-surface InAs quantum wells grown on GaSb(001). *Physical Review Materials*, **2019**, 3,	3.2	8
25	Structure and basal twinning of topological insulator Bi2Se3 grown by MBE onto crystalline Y3Fe5O12. *Physical Review Materials*, **2019**, 3,	3.2	7
24	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,	3.2	26
23	End-to-end correlated subgap states in hybrid nanowires. *Physical Review B*, **2019**, 100,	3.3	20
22	Unidirectional spin-Hall and Rashba-Edelstein magnetoresistance in topological insulator-ferromagnet layer heterostructures. *Nature Communications*, **2018**, 9, 111	17.4	55

21	Quantized Majorana conductance. *Nature*, **2018**, 556, 74-79	50.4	382
20	Materials considerations for forming the topological insulator phase in InAs/GaSb heterostructures. *Physical Review Materials*, **2018**, 2,	3.2	14
19	Electric field tunable superconductor-semiconductor coupling in Majorana nanowires. *New Journal of Physics*, **2018**, 20, 103049	2.9	44
18	Mirage Andreev Spectra Generated by Mesoscopic Leads in Nanowire Quantum Dots. *Physical Review Letters*, **2018**, 121, 127705	7.4	15
17	Engineering the breaking of time-reversal symmetry in gate-tunable hybrid ferromagnet/topological insulator heterostructures. *Npj Quantum Materials*, **2018**, 3,	5	17
16	Faraday Rotation Due to Surface States in the Topological Insulator (BiSb)Te. *Nano Letters*, **2017**, 17, 980-984	11.5	19
15	Epitaxy of advanced nanowire quantum devices. *Nature*, **2017**, 548, 434-438	50.4	192
14	Probing Two-dimensional (Bi,Sb)2Te3/h-BN Heterostructures Using Complementary S/TEM and Simulation Techniques. *Microscopy and Microanalysis*, **2017**, 23, 1760-1761	0.5	
13	S/TEM Investigation of the Structure of (Bi,Sb) 2 Te 3 /h-BN Heterostructures Grown by Molecular Beam Epitaxy. *Microscopy and Microanalysis*, **2016**, 22, 1602-1603	0.5	
12	Surface-State-Dominated Spin-Charge Current Conversion in Topological-Insulator-Ferromagnetic-Insulator Heterostructures. *Physical Review Letters*, **2016**, 117, 076601	7.4	130
11	Giant Spin Pumping and Inverse Spin Hall Effect in the Presence of Surface and Bulk Spin-Orbit Coupling of Topological Insulator Bi2Se3. *Nano Letters*, **2015**, 15, 7126-32	11.5	200
10	Characterizing the structure of topological insulator thin films. *APL Materials*, **2015**, 3, 083303	5.7	40
9	Sum-rule constraints on the surface state conductance of topological insulators. *Physical Review Letters*, **2015**, 115, 116804	7.4	20
8	Mapping the chemical potential dependence of current-induced spin polarization in a topological insulator. *Physical Review B*, **2015**, 92,	3.3	66
7	Infrared electrodynamics and ferromagnetism in the topological semiconductors Bi2Te3 and Mn-doped Bi2Te3. *Physical Review B*, **2014**, 89,	3.3	19
6	Spin-transfer torque generated by a topological insulator. *Nature*, **2014**, 511, 449-51	50.4	851
5	Ferromagnetism and spin-dependent transport in n-type Mn-doped bismuth telluride thin films. *Physical Review B*, **2014**, 89,	3.3	40
4	Molecular beam epitaxial growth of Bi2Te3 and Sb2Te3 topological insulators on GaAs (111) substrates: a potential route to fabricate topological insulator p-n junction. *AIP Advances*, **2013**, 3, 072112	1.5	56

3	Anomalous anisotropic magnetoresistance in topological insulator films. *Nano Research*, **2012**, 5, 739-746	20	59
2	Superconducting proximity effect and possible evidence for Pearl vortices in a candidate topological insulator. *Physical Review B*, **2011**, 84,	3.3	115
1	Coherent heteroepitaxy of Bi2Se3 on GaAs (111)B. *Applied Physics Letters*, **2010**, 97, 262104	3.4	116