

Sangwan Sim

List of Publications by Year in descending order

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42
papers

1,258
citations

516561

16
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414303

32
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43
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docs citations

43
times ranked

2613
citing authors

#	ARTICLE	IF	CITATIONS
1	Controllable synthesis of molybdenum tungsten disulfide alloy for vertically composition-controlled multilayer. <i>Nature Communications</i> , 2015, 6, 7817.	5.8	188
2	Exciton dynamics in atomically thin MoS ₂ : Interexcitonic interaction and broadening kinetics. <i>Physical Review B</i> , 2013, 88, .	1.1	173
3	Ultrafast terahertz dynamics of hot Dirac-electron surface scattering in the topological insulator Bi ₂ Se ₃ . <i>Physical Review B</i> , 2014, 89, .	5.8	87
4	Ultra-high modulation depth exceeding 2,400% in optically controlled topological surface plasmons. <i>Nature Communications</i> , 2015, 6, 8814.	5.8	76
5	Selectively tunable optical Stark effect of anisotropic excitons in atomically thin ReS ₂ . <i>Nature Communications</i> , 2016, 7, 13569.	5.8	76
6	Writing monolithic integrated circuits on a two-dimensional semiconductor with a scanning light probe. <i>Nature Electronics</i> , 2018, 1, 512-517.	13.1	74
7	1s-intraexcitonic dynamics in monolayer MoS ₂ probed by ultrafast mid-infrared spectroscopy. <i>Nature Communications</i> , 2016, 7, 10768.	5.8	72
8	Highly Sensitive, Gate-Tunable, Room-Temperature Mid-Infrared Photodetection Based on Graphene/Bi ₂ Se ₃ Heterostructure. <i>ACS Photonics</i> , 2017, 4, 482-488.	3.2	70
9	Ultrahigh Deep-Ultraviolet Responsivity of a $\text{In}^{2-}\text{Ga}_2\text{O}_3/\text{MgO}$ Heterostructure-Based Phototransistor. <i>ACS Photonics</i> , 2021, 8, 557-566.	3.2	54
10	Ultrafast quantum beats of anisotropic excitons in atomically thin ReS ₂ . <i>Nature Communications</i> , 2018, 9, 351.	5.8	49
11	Control over Electron-Phonon Interaction by Dirac Plasmon Engineering in the Bi ₂ Se ₃ Topological Insulator. <i>Nano Letters</i> , 2018, 18, 734-739.	4.5	39
12	Tunable Fano quantum-interference dynamics using a topological phase transition in	1.1	37
13	Phy Generation, transport and detection of valley-locked spin photocurrent in WSe ₂ /graphene/Bi ₂ Se ₃ heterostructures. <i>Nature Nanotechnology</i> , 2018, 13, 910-914.	15.6	33
14	Ultrafast Auger process in few-layer PtSe ₂ . <i>Nanoscale</i> , 2020, 12, 22185-22191.	2.8	25
15	Role of weak interlayer coupling in ultrafast exciton-exciton annihilation in two-dimensional rhenium dichalcogenides. <i>Physical Review B</i> , 2020, 101, .	1.1	21
16	Light Polarization-Controlled Conversion of Ultrafast Coherent to Incoherent Exciton Dynamics in Few-Layer ReS ₂ . <i>Nano Letters</i> , 2019, 19, 7464-7469.	4.5	20
17	Picosecond Competing Dynamics of Apparent Semiconducting-Metallic Phase Transition in the Topological Insulator Bi ₂ Se ₃ . <i>ACS Photonics</i> , 2020, 7, 759-764.	3.2	19
18	Exciton-Dominated Ultrafast Optical Response in Atomically Thin PtSe ₂ . <i>Small</i> , 2021, 17, e2103400.	5.2	18

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19	Ultrafast relaxation dynamics in bimetallic plasmonic catalysts. <i>Nanoscale</i> , 2020, 12, 10284-10291.	2.8	16
20	Comparison of hydrogen sulfide gas and sulfur powder for synthesis of molybdenum disulfide nanosheets. <i>Current Applied Physics</i> , 2016, 16, 691-695.	1.1	15
21	Ultrafast biexciton spectroscopy in semiconductor quantum dots: evidence for early emergence of multiple-exciton generation. <i>Scientific Reports</i> , 2013, 3, 3206.	1.6	14
22	Composition Control of Plasmon-Phonon Interaction Using Topological Quantum-Phase Transition in Photoexcited $(\text{Bi}_{1-x}\text{In}_x)_2\text{Se}_3$. <i>ACS Photonics</i> , 2016, 3, 1426-1431.	3.2	12
23	Opposite behavior of ultrafast dynamics of exciton shift and linewidth broadening in bilayer Sb_2Te_3 . <i>Physical Review B</i> , 2021, 103, .	1.1	11
24	Anisotropic excitons in 2D rhenium dichalcogenides: a mini-review. <i>Journal of the Korean Physical Society</i> , 2022, 81, 532-548.	0.3	11
25	Light Absorption and Emission Dominated by Trions in the Type-I van der Waals Heterostructures. <i>ACS Photonics</i> , 2021, 8, 1972-1978.	3.2	10
26	Role of Spin Hall Effect in the Topological Side Surface Conduction. <i>ACS Photonics</i> , 2018, 5, 3347-3352.	3.2	8
27	Metal-insulator transition and interfacial thermal transport in atomic layer deposited Ru nanofilms characterized by ultrafast terahertz spectroscopy. <i>Applied Surface Science</i> , 2021, 563, 150184.	3.1	8
28	Ultrafast Hot-Carrier Photovoltaics of Type-I Monolayer Heterojunctions in the Broad Spectral Ranges. <i>ACS Photonics</i> , 2017, 4, 429-434.	3.2	6
29	Counterbalanced Effect of Surface Trap and Auger Recombination on the Transverse Terahertz Carrier Dynamics in Silicon Nanowires. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2015, 5, 605-612.	2.0	5
30	Surface Passivation and Carrier Collection in $\{110\}$, $\{100\}$ and Circular Si Microwire Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1802154.	10.2	5
31	Anomalous Oscillating Behavior of Ultrafast Spatiotemporal Hot Carrier Diffusion in Two-Dimensional PtSe_2 . <i>ACS Photonics</i> , 2022, 9, 1783-1792.	3.2	5
32	Terahertz dynamics of topological insulator Bi_2Se_3 : ultrafast photoexcitation suppresses hot-Dirac electron surface scattering. , 2014, , .		1
33	Ultrafast anisotropic dynamics of non-degenerated excitons in atomically-thin ReS_2 . , 2017, , .		1
34	Observation of the mid-infrared 1s intraexcitonic dynamics in monolayer MoS_2 . , 2015, , .		0
35	Ultrafast mid-infrared investigations on the surface Dirac fermions with topological phase transition. , 2015, , .		0
36	Giant modulation depth in the photoexcited topological surface plasmons exceeding 2,400 %. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
37	Ultrafast mid-infrared intraexcitonic spectroscopy of monolayer MoS ₂ . , 2015, , .		0
38	Gate-tunable, high-responsivity, and room-temperature infrared photodetectors based on a graphene-Bi ₂ Se ₃ heterostructure. , 2016, , .		0
39	Terahertz investigation of Dirac plasmons and phonon interaction in the topological insulator Bi ₂ Se ₃ metamaterials. , 2017, , .		0
40	Hybridization of anti-dipole plasmon oscillation and phonon in the topological insulator Bi ₂ Se ₃ . , 2016, , .		0
41	Ultrafast optical control of plasmon-phonon interaction using topological phase transition in (Bi _{1-x} In _x) ₂ Se ₃ . , 2016, , .		0
42	Exciton-selective optical Stark effect in two-dimensional group-VII transition metal dichalcogenide ReS ₂ . , 2017, , .		0