

Sangwan Sim

List of Publications by Year in descending order

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42
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516561

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43
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43
docs citations

43
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2613
citing authors

#	ARTICLE	IF	CITATIONS
1	Anisotropic excitons in 2D rhenium dichalcogenides: a mini-review. Journal of the Korean Physical Society, 2022, 81, 532-548.	0.3	11
2	Anomalous Oscillating Behavior of Ultrafast Spatiotemporal Hot Carrier Diffusion in Two-Dimensional PtSe ₂ . ACS Photonics, 2022, 9, 1783-1792.	3.2	5
3	Ultrahigh Deep-Ultraviolet Responsivity of a $\hat{\Gamma}^2$ -Ga ₂ O ₃ /MgO Heterostructure-Based Phototransistor. ACS Photonics, 2021, 8, 557-566.	3.2	54
4	Opposite behavior of ultrafast dynamics of exciton shift and linewidth broadening in bilayer $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Re} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{S} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ Physical Review B, 2021, 103, .	1.1	11
5	Light Absorption and Emission Dominated by Trions in the Type-I van der Waals Heterostructures. ACS Photonics, 2021, 8, 1972-1978.	3.2	10
6	Exciton-Dominated Ultrafast Optical Response in Atomically Thin PtSe ₂ . Small, 2021, 17, e2103400.	5.2	18
7	Metal-insulator transition and interfacial thermal transport in atomic layer deposited Ru nanofilms characterized by ultrafast terahertz spectroscopy. Applied Surface Science, 2021, 563, 150184.	3.1	8
8	Ultrafast Auger process in few-layer PtSe ₂ . Nanoscale, 2020, 12, 22185-22191.	2.8	25
9	Ultrafast relaxation dynamics in bimetallic plasmonic catalysts. Nanoscale, 2020, 12, 10284-10291.	2.8	16
10	Role of weak interlayer coupling in ultrafast exciton-exciton annihilation in two-dimensional rhenium dichalcogenides. Physical Review B, 2020, 101, .	1.1	21
11	Picosecond Competing Dynamics of Apparent Semiconducting-Metallic Phase Transition in the Topological Insulator Bi ₂ Se ₃ . ACS Photonics, 2020, 7, 759-764.	3.2	19
12	Light Polarization-Controlled Conversion of Ultrafast Coherent-Incoherent Exciton Dynamics in Few-Layer ReS ₂ . Nano Letters, 2019, 19, 7464-7469.	4.5	20
13	Control over Electron-Phonon Interaction by Dirac Plasmon Engineering in the Bi ₂ Se ₃ Topological Insulator. Nano Letters, 2018, 18, 734-739.	4.5	39
14	Ultrafast quantum beats of anisotropic excitons in atomically thin ReS ₂ . Nature Communications, 2018, 9, 351.	5.8	49
15	Surface Passivation and Carrier Collection in {110}, {100} and Circular Si Microwire Solar Cells. Advanced Energy Materials, 2018, 8, 1802154.	10.2	5
16	Writing monolithic integrated circuits on a two-dimensional semiconductor with a scanning light probe. Nature Electronics, 2018, 1, 512-517.	18.1	74
17	Role of Spin Hall Effect in the Topological Side Surface Conduction. ACS Photonics, 2018, 5, 3347-3352.	3.2	8
18	Generation, transport and detection of valley-locked spin photocurrent in WSe ₂ -graphene-Bi ₂ Se ₃ heterostructures. Nature Nanotechnology, 2018, 13, 910-914.	15.6	33

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19	Ultrafast Hot-Carrier Photovoltaics of Type-I Monolayer Heterojunctions in the Broad Spectral Ranges. ACS Photonics, 2017, 4, 429-434.	3.2	6
20	Highly Sensitive, Gate-Tunable, Room-Temperature Mid-Infrared Photodetection Based on Graphene-Bi ₂ Se ₃ Heterostructure. ACS Photonics, 2017, 4, 482-488.	3.2	70
21	Terahertz investigation of Dirac plasmons and phonon interaction in the topological insulator Bi ₂ Se ₃ metamaterials. , 2017, , .		0
22	Exciton-selective optical Stark effect in two-dimensional group-VII transition metal dichalcogenide ReS ₂ . , 2017, , .		0
23	Ultrafast anisotropic dynamics of non-degenerated excitons in atomically-thin ReS ₂ . , 2017, , .		1
24	Gate-tunable, high-responsivity, and room-temperature infrared photodetectors based on a graphene-Bi ₂ Se ₃ heterostructure. , 2016, , .		0
25	1s-intraexcitonic dynamics in monolayer MoS ₂ probed by ultrafast mid-infrared spectroscopy. Nature Communications, 2016, 7, 10768.	5.8	72
26	Comparison of hydrogen sulfide gas and sulfur powder for synthesis of molybdenum disulfide nanosheets. Current Applied Physics, 2016, 16, 691-695.	1.1	15
27	Selectively tunable optical Stark effect of anisotropic excitons in atomically thin ReS ₂ . Nature Communications, 2016, 7, 13569.	5.8	76
28	Composition Control of Plasmon-Phonon Interaction Using Topological Quantum-Phase Transition in Photoexcited (Bi ₂ Se ₃) ₂ . ACS Photonics, 2016, 3, 1426-1431.	3.2	12
29	Hybridization of anti-dipole plasmon oscillation and phonon in the topological insulator Bi ₂ Se ₃ . , 2016, , .		0
30	Ultrafast optical control of plasmon-phonon interaction using topological phase transition in (Bi _{1-x} In _x) ₂ Se ₃ . , 2016, , .		0
31	Observation of the mid-infrared 1s intraexcitonic dynamics in monolayer MoS ₂ . , 2015, , . Tunable Fano quantum-interference dynamics using a topological phase transition in		0
32		1.1	37
33	Phy Ultrafast mid-infrared investigations on the surface Dirac fermions with topological phase transition. , 2015, , .		0
34	Giant modulation depth in the photoexcited topological surface plasmons exceeding 2,400 %. , 2015, , .		0
35	Controllable synthesis of molybdenum tungsten disulfide alloy for vertically composition-controlled multilayer. Nature Communications, 2015, 6, 7817.	5.8	188
36	Counterbalanced Effect of Surface Trap and Auger Recombination on the Transverse Terahertz Carrier Dynamics in Silicon Nanowires. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 605-612.	2.0	5

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37	Ultra-high modulation depth exceeding 2,400% in optically controlled topological surface plasmons. Nature Communications, 2015, 6, 8814.	5.8	76
38	Ultrafast mid-infrared intraexcitonic spectroscopy of monolayer MoS ₂ . , 2015, , .		0
39	Ultrafast terahertz dynamics of hot Dirac-electron surface scattering in the topological insulator Bi_2Se_3 . Physical Review B, 2014, 89, .	1.1	87
40	Terahertz dynamics of topological insulator Bi ₂ Se ₃ : ultrafast photoexcitation suppresses hot-Dirac electron surface scattering. , 2014, , .		1
41	Ultrafast biexciton spectroscopy in semiconductor quantum dots: evidence for early emergence of multiple-exciton generation. Scientific Reports, 2013, 3, 3206.	1.6	14
42	Exciton dynamics in atomically thin MoS ₂ : Interexcitonic interaction and broadening kinetics. Physical Review B, 2013, 88, .	1.1	173