

# Christian Schä<sup>1</sup>/<sub>4</sub>ller

## List of Publications by Year in descending order

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57  
papers

3,636  
citations

186265

28  
h-index

254184

43  
g-index

57  
all docs

57  
docs citations

57  
times ranked

4985  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coulomb engineering of the bandgap and excitons in two-dimensional materials. Nature Communications, 2017, 8, 15251.	12.8	526
2	Excitonic linewidth and coherence lifetime in monolayer transition metal dichalcogenides. Nature Communications, 2016, 7, 13279.	12.8	360
3	Identification of excitons, trions and biexcitons in single-layer WS <sub>2</sub> . Physica Status Solidi - Rapid Research Letters, 2015, 9, 457-461.	2.4	282
4	Trion fine structure and coupled spin-valley dynamics in monolayer tungsten disulfide. Nature Communications, 2016, 7, 12715.	12.8	239
5	Momentum-space indirect interlayer excitons in transition-metal dichalcogenide van der Waals heterostructures. Nature Physics, 2018, 14, 801-805.	16.7	229
6	Exciton Diffusion and Halo Effects in Monolayer Semiconductors. Physical Review Letters, 2018, 120, 207401.	7.8	193
7	Direct Observation of Ultrafast Exciton Formation in a Monolayer of WSe <sub>2</sub> . Nano Letters, 2017, 17, 1455-1460.	9.1	171
8	Neutral and charged inter-valley biexcitons in monolayer MoSe <sub>2</sub> . Nature Communications, 2017, 8, 15552.	12.8	159
9	Control of biaxial strain in single-layer molybdenite using local thermal expansion of the substrate. 2D Materials, 2015, 2, 015006.	4.4	149
10	Interlayer exciton dynamics in a dichalcogenide monolayer heterostructure. 2D Materials, 2017, 4, 025112.	4.4	146
11	Excitonic Valley Effects in Monolayer WS <sub>2</sub> under High Magnetic Fields. Nano Letters, 2016, 16, 7899-7904.	9.1	114
12	Giant magnetic splitting inducing near-unity valley polarization in van der Waals heterostructures. Nature Communications, 2017, 8, 1551.	12.8	105
13	Highly Localized Strain in a MoS <sub>2</sub> /Au Heterostructure Revealed by Tip-Enhanced Raman Spectroscopy. Nano Letters, 2017, 17, 6027-6033.	9.1	91
14	Coherent and Incoherent Coupling Dynamics between Neutral and Charged Excitons in Monolayer MoSe <sub>2</sub> . Nano Letters, 2016, 16, 5109-5113.	9.1	78
15	Magnetic-Field-Induced Rotation of Polarized Light Emission from Monolayer $WS_2$ . Physical Review Letters, 2016, 117, 077402.	7.8	76
16	Zeeman Splitting and Inverted Polarization of Biexciton Emission in Monolayer $WS_2$ . Physical Review Letters, 2018, 121, 057402.	7.8	70
17	Direct Observation of the Band Gap Transition in Atomically Thin ReS <sub>2</sub> . Nano Letters, 2017, 17, 5187-5192.	9.1	65
18	Observation of anisotropic interlayer Raman modes in few-layer ReS <sub>2</sub> . Physica Status Solidi - Rapid Research Letters, 2016, 10, 185-189.	2.4	48

#	ARTICLE	IF	CITATIONS
19	Characterization of highly crystalline lead iodide nanosheets prepared by room-temperature solution processing. <i>Nanotechnology</i> , 2017, 28, 455703.	2.6	45
20	Large-scale Mapping of Moiré Superlattices by Hyperspectral Raman Imaging. <i>Advanced Materials</i> , 2021, 33, e2008333.	21.0	41
21	Dielectric Engineering of Electronic Correlations in a van der Waals Heterostructure. <i>Nano Letters</i> , 2018, 18, 1402-1409.	9.1	39
22	Confinement Effects on Optical Phonons in Polar Tetrapod Nanocrystals Detected by Resonant Inelastic Light Scattering. <i>Nano Letters</i> , 2006, 6, 478-482.	9.1	35
23	Enhanced spin-orbit coupling in core/shell nanowires. <i>Nature Communications</i> , 2016, 7, 12413.	12.8	34
24	Trion valley coherence in monolayer semiconductors. <i>2D Materials</i> , 2017, 4, 025105.	4.4	34
25	Ultrafast Charge-Transfer Dynamics in Twisted MoS <sub>2</sub> /WSe <sub>2</sub> Heterostructures. <i>ACS Nano</i> , 2021, 15, 14725-14731.	14.6	32
26	Low-frequency Raman scattering in WSe <sub>2</sub> /MoSe <sub>2</sub> heterobilayers: Evidence for atomic reconstruction. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	30
27	Weak localization and Raman study of anisotropically etched graphene antidots. <i>Applied Physics Letters</i> , 2013, 103, 143111.	3.3	29
28	Moiré phonons in twisted MoSe <sub>2</sub> /WSe <sub>2</sub> heterobilayers and their correlation with interlayer excitons. <i>2D Materials</i> , 2021, 8, 035030.	4.4	29
29	Absence of a giant spin Hall effect in plasma-hydrogenated graphene. <i>Physical Review B</i> , 2019, 99, .	3.2	27
30	Long exciton lifetimes in stacking-fault-free wurtzite GaAs nanowires. <i>Applied Physics Letters</i> , 2014, 105, 222109.	3.3	24
31	Valley dynamics of excitons in monolayer dichalcogenides. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1700131.	2.4	19
32	Single-particle-like states in few-electron quantum dots. <i>Physical Review B</i> , 2000, 61, 15600-15602.	3.2	18
33	Spectral focusing of broadband silver electroluminescence in nanoscopic FRET-LEDs. <i>Nature Nanotechnology</i> , 2017, 12, 637-641.	31.5	18
34	Interlayer Excitons in Transition-Metal Dichalcogenide Heterobilayers. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1900308.	1.5	15
35	Frequency Shift in Graphene-Enhanced Raman Signal of Molecules. <i>ChemPhysChem</i> , 2012, 13, 4271-4275.	2.1	11
36	Spin Dynamics in High-Mobility Two-Dimensional Electron Systems. <i>Advances in Solid State Physics</i> , 2009, , 143-155.	0.8	11

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37	Interlayer exciton valley polarization dynamics in large magnetic fields. Physical Review B, 2022, 105, .	3.2	11
38	Ultralong spin lifetimes in one-dimensional semiconductor nanowires. Applied Physics Letters, 2019, 114, 202101.	3.3	10
39	Raman spectroscopy of quantum wires and dots: magnetoplasmons and edge-spin-density modes. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 3, 121-128.	2.7	6
40	Tailored nanoantennas for directional Raman studies of individual carbon nanotubes. Physical Review B, 2015, 91, .	3.2	6
41	Polarized surface-enhanced Raman spectroscopy of suspended carbon nanotubes by Pt-Re nanoantennas. Physical Review B, 2017, 96, .	3.2	4
42	Tuning Spontaneous Emission through Waveguide Cavity Effects in Semiconductor Nanowires. Nano Letters, 2019, 19, 7287-7292.	9.1	3
43	Intersubband excitations in ultrathin core-shell nanowires in the one-dimensional quantum limit probed by resonant inelastic light scattering. Physical Review B, 2021, 104, .	3.2	3
44	Anisotropic spin dephasing in a (110)-grown high-mobility GaAs/AlGaAs quantum well measured by resonant spin amplification technique. , 2011, , .		1
45	High spin polarization of optically-oriented trions in p-doped GaAs-AlGaAs quantum wells. AIP Conference Proceedings, 2007, , .	0.4	0
46	Inelastic light scattering of hole spin excitations in p-modulation-doped GaAs-AlGaAs single quantum wells. , 2011, , .		0
47	Scanning Raman spectroscopy of nanostructured graphene: doping due to presence of edges. Proceedings of SPIE, 2011, , .	0.8	0
48	Time-resolved spectroscopy of coupled spin-valley-dynamics in monolayer transition metal dichalcogenides at low temperatures. , 2015, , .		0
49	Excitonic linewidth and coherence lifetime in monolayer transition metal dichalcogenides. Proceedings of SPIE, 2017, , .	0.8	0
50	Rotation of polarized light emission from monolayer WS2 induced by high magnetic fields. , 2017, , .		0
51	Large-scale Mapping of Moiré Superlattices by Hyperspectral Raman Imaging (Adv. Mater. 34/2021). Advanced Materials, 2021, 33, 2170267.	21.0	0
52	Trion Valley Coherence in Transition Metal Dichalcogenides. , 2017, , .		0
53	Towards Room-Temperature Single-Photon LEDs by FRET from Metal Nanoparticles to Exfoliated 2D Crystal Overlayers. , 2018, , .		0
54	Optical spectroscopy of interlayer excitons in TMDC heterostructures: exciton dynamics, interactions, and giant valley-selective magnetic splitting. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
55	Magneto-Raman spectroscopy of spin-density excitations in (001)-grown GaAs-AlGaAs quantum wells in the regime of the persistent spin helix. , 2018, , .		0
56	Ultrafast Transition from Intra- to Interlayer Exciton Phases in a Van Der Waals Heterostructure. , 2019, , .		0
57	Quantum Wires: Interacting Quantum Liquids. , 0, , 121-143.		0