

# Malte Selig

## List of Publications by Year in descending order

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Version: 2024-02-01

38  
papers

2,214  
citations

304743  
22  
h-index

377865  
34  
g-index

38  
all docs

38  
docs citations

38  
times ranked

2146  
citing authors

#	ARTICLE	IF	CITATIONS
1	Excitonic linewidth and coherence lifetime in monolayer transition metal dichalcogenides. <i>Nature Communications</i> , 2016, 7, 13279.	12.8	360
2	Strain Control of Exciton-Phonon Coupling in Atomically Thin Semiconductors. <i>Nano Letters</i> , 2018, 18, 1751-1757.	9.1	177
3	Dark excitons in transition metal dichalcogenides. <i>Physical Review Materials</i> , 2018, 2, .	2.4	149
4	Ultrafast Coulomb-Induced Intervalley Coupling in Atomically Thin WS <sub>2</sub> . <i>Nano Letters</i> , 2016, 16, 2945-2950.	9.1	139
5	Phonon Sidebands in Monolayer Transition Metal Dichalcogenides. <i>Physical Review Letters</i> , 2017, 119, 187402.	7.8	136
6	Dark and bright exciton formation, thermalization, and photoluminescence in monolayer transition metal dichalcogenides. <i>2D Materials</i> , 2018, 5, 035017.	4.4	129
7	Phonon-Assisted Photoluminescence from Indirect Excitons in Monolayers of Transition-Metal Dichalcogenides. <i>Nano Letters</i> , 2020, 20, 2849-2856.	9.1	106
8	Interlayer exciton dynamics in van der Waals heterostructures. <i>Communications Physics</i> , 2019, 2, .	5.3	103
9	Exciton Relaxation Cascade in two-dimensional Transition Metal Dichalcogenides. <i>Scientific Reports</i> , 2018, 8, 8238.	3.3	82
10	The role of momentum-dark excitons in the elementary optical response of bilayer WSe <sub>2</sub> . <i>Nature Communications</i> , 2018, 9, 2586.	12.8	70
11	Theory of Exciton-Exciton Interactions in Monolayer Transition Metal Dichalcogenides. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1800185.	1.5	61
12	The ultrafast onset of exciton formation in 2D semiconductors. <i>Nature Communications</i> , 2020, 11, 5277.	12.8	57
13	Ultrafast dynamics in monolayer transition metal dichalcogenides: Interplay of dark excitons, phonons, and intervalley exchange. <i>Physical Review Research</i> , 2019, 1, .	3.6	57
14	Intrinsic lifetime of higher excitonic states in tungsten diselenide monolayers. <i>Nanoscale</i> , 2019, 11, 12381-12387.	5.6	56
15	Exciton-Scattering-Induced Dephasing in Two-Dimensional Semiconductors. <i>Physical Review Letters</i> , 2020, 124, 257402.	7.8	55
16	Direct measurement of key exciton properties: Energy, dynamics, and spatial distribution of the wave function. <i>Natural Sciences</i> , 2021, 1, e10010.	2.1	52
17	Impact of strain on the excitonic linewidth in transition metal dichalcogenides. <i>2D Materials</i> , 2019, 6, 015015.	4.4	51
18	Enhancement of Exciton-Phonon Scattering from Monolayer to Bilayer WS <sub>2</sub> . <i>Nano Letters</i> , 2018, 18, 6135-6143.	9.1	50

#	ARTICLE	IF	CITATIONS
19	Theory of exciton dynamics in time-resolved ARPES: Intra- and intervalley scattering in two-dimensional semiconductors. <i>Physical Review B</i> , 2019, 100, .	3.2	49
20	Dielectric Engineering of Electronic Correlations in a van der Waals Heterostructure. <i>Nano Letters</i> , 2018, 18, 1402-1409.	9.1	39
21	Theory of coherent pump-probe spectroscopy in monolayer transition metal dichalcogenides. <i>2D Materials</i> , 2020, 7, 015021.	4.4	30
22	Excitons in Bilayer $\text{MoS}_2$ Displaying a Colossal Electric Field Splitting and Tunable Magnetic Response. <i>Physical Review Letters</i> , 2021, 126, 037401.	7.8	30
23	Suppression of intervalley exchange coupling in the presence of momentum-dark states in transition metal dichalcogenides. <i>Physical Review Research</i> , 2020, 2, .	3.6	23
24	Optical dipole orientation of interlayer excitons in $\text{MoSe}_2$ heterostacks. <i>Physical Review B</i> , 2022, 105, .	3.2	22
25	Theory of optically induced Förster coupling in van der Waals coupled heterostructures. <i>Physical Review B</i> , 2019, 99, .	3.2	20
26	Temporal Evolution of Low-Temperature Phonon Sidebands in Transition Metal Dichalcogenides. <i>ACS Photonics</i> , 2020, 7, 2756-2764.	6.6	20
27	Exciton broadening and band renormalization due to Dexter-like intervalley coupling. <i>2D Materials</i> , 2018, 5, 025011.	4.4	15
28	Phonon-Assisted Intervalley Scattering Determines Ultrafast Exciton Dynamics in $\text{MoSe}_2$ Bilayers. <i>Physical Review Letters</i> , 2021, 127, 157403.	7.8	15
29	Theory of second-order excitonic nonlinearities in transition metal dichalcogenides. <i>Physical Review B</i> , 2019, 100, .	3.2	12
30	Strong coupling regime and hybrid quasinormal modes from a single plasmonic resonator coupled to a transition metal dichalcogenide monolayer. <i>Physical Review B</i> , 2021, 104, .	3.2	12
31	Interlayer exciton valley polarization dynamics in large magnetic fields. <i>Physical Review B</i> , 2022, 105, .	3.2	11
32	Terahertz-Induced Energy Transfer from Hot Carriers to Trions in a $\text{MoSe}_2$ Monolayer. <i>ACS Photonics</i> , 0, .	6.6	9
33	Theory of the Coherent Response of Magneto-Excitons and Magneto-Biexcitons in Monolayer Transition Metal Dichalcogenides. <i>Physical Review B</i> , 2020, 102, .	3.2	8
34	Molecule signatures in photoluminescence spectra of transition metal dichalcogenides. <i>Physical Review Materials</i> , 2018, 2, .	2.4	5
35	Terahertz control of photoluminescence emission in few-layer InSe. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	4
36	Internal structure and ultrafast dynamics of tailored excitons in van der Waals heterostructures. , 2019, .	0	0

# ARTICLE

IF

CITATIONS

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37	Exciton dynamics in atomically thin semiconductors: optical lineshape, intervalley coupling, and luminescence dynamics., 2019, , .	0	0
38	Phonon-Assisted Exciton Polarization to Population Transfer in a 2D Semiconductor., 2020, , .	0	0