Samuel Brem

List of Publications by Year
in descending order

48 papers	1,787 citations	304743 22 h-index	265206 42 g-index
49 all docs	49 docs citations	49 times ranked	1832 citing authors

#	Article	IF	Citations
1	Dielectric disorder in two-dimensional materials. Nature Nanotechnology, 2019, 14, 832-837.	31.5	223
2	Ultrafast transition between exciton phases in van der Waals heterostructures. Nature Materials, 2019, 18, 691-696.	27.5	168
3	Dark excitons in transition metal dichalcogenides. Physical Review Materials, 2018, 2, .	2.4	149
4	Phonon-Assisted Photoluminescence from Indirect Excitons in Monolayers of Transition-Metal Dichalcogenides. Nano Letters, 2020, 20, 2849-2856.	9.1	106
5	Interlayer exciton dynamics in van der Waals heterostructures. Communications Physics, 2019, 2, .	5.3	103
6	Exciton Relaxation Cascade in two-dimensional Transition Metal Dichalcogenides. Scientific Reports, 2018, 8, 8238.	3.3	82
7	Tunable Phases of MoirÃ© Excitons in van der Waals Heterostructures. Nano Letters, 2020, 20, 8534-8540.	9.1	74
8	Exciton diffusion in monolayer semiconductors with suppressed disorder. Physical Review B, 2020, 101, .	3.2	74
9	Exciton Propagation and Halo Formation in Two-Dimensional Materials. Nano Letters, 2019, 19, 7317-7323.	9.1	64
10	Twist-tailoring Coulomb correlations in van der Waals homobilayers. Nature Communications, 2020, 11, 2167.	12.8	63
11	Intrinsic lifetime of higher excitonic states in tungsten diselenide monolayers. Nanoscale, 2019, 11, 12381-12387.	5.6	56
12	Hybridized intervalley moirÃ© excitons and flat bands in twisted WSe₂ bilayers. Nanoscale, 2020, 12, 11088-11094.	5.6	55
13	Impact of strain on the excitonic linewidth in transition metal dichalcogenides. 2D Materials, 2019, 6, 015015.	4.4	51
14	Momentum-Resolved Observation of Exciton Formation Dynamics in Monolayer WS₂. Nano Letters, 2021, 21, 5867-5873.	9.1	45
15	Exciton-exciton interaction in transition metal dichalcogenide monolayers and van der Waals heterostructures. Physical Review B, 2021, 103, .	3.2	42
16	Nonclassical Exciton Diffusion in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review Letters, 2021, 127, 076801.	7.8	40
17	Dielectric Engineering of Electronic Correlations in a van der Waals Heterostructure. Nano Letters, 2018, 18, 1402-1409.	9.1	39
18	Negative effective excitonic diffusion in monolayer transition metal dichalcogenides. Nanoscale, 2020, 12, 356-363.	5.6	37

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19	Dark exciton anti-funneling in atomically thin semiconductors. Nature Communications, 2021, 12, 7221.	12.8	35
20	Ultrafast Nanoscopy of High-Density Exciton Phases in WSe₂. Nano Letters, 2022, 22, 2561-2568.	9.1	27
21	Carrier Dynamics in Graphene: Ultrafast Manyâ€Particle Phenomena. Annalen Der Physik, 2017, 529, 1700038.	2.4	26
22	Suppression of intervalley exchange coupling in the presence of momentum-dark states in transition metal dichalcogenides. Physical Review Research, 2020, 2, .	3.6	23
23	Strain-dependent exciton diffusion in transition metal dichalcogenides. 2D Materials, 2021, 8, 015030.	4.4	21
24	Temporal Evolution of Low-Temperature Phonon Sidebands in Transition Metal Dichalcogenides. ACS Photonics, 2020, 7, 2756-2764.	6.6	20
25	Brightening of spin- and momentum-dark excitons in transition metal dichalcogenides. 2D Materials, 2021, 8, 015013.	4.4	20
26	Exciton landscape in van der Waals heterostructures. Physical Review Research, 2021, 3, .	3.6	19
27	Dark exciton-exciton annihilation in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>WSe</mml:mi></mml:mrow><mml:mn>2</mml:mn> Physical Review B, 2021, 104, .	3.2	10
28	Microscopic Understanding of Ultrafast Charge Transfer in van der Waals Heterostructures. Physical Review Letters, 2021, 127, 276401.	7.8	13
29	Microscopic modeling of tunable graphene-based terahertz Landau-level lasers. Physical Review B, 2017, 96, .	3.2	11
30	Ultrafast phononâ€driven charge transfer in van der Waals heterostructures. Natural Sciences, 2022, 2, .	2.1	10
31	Spatio-temporal dynamics in graphene. Nanoscale, 2019, 11, 10017-10022.	5.6	9
32	Phonon-assisted exciton dissociation in transition metal dichalcogenides. Nanoscale, 2021, 13, 1884-1892.	5.6	9
33	Enhanced excitonic features in an anisotropic ReS₂/WSe₂ heterostructure. Nanoscale, 2022, 14, 10851-10861.	5.6	9
34	Optical fingerprint of bright and dark localized excitonic states in atomically thin 2D materials. Physical Chemistry Chemical Physics, 2019, 21, 26077-26083.	2.8	7
35	Terahertz Fingerprint of Monolayer Wigner Crystals. Nano Letters, 2022, 22, 1311-1315.	9.1	7
36	Non-equilibrium diffusion of dark excitons in atomically thin semiconductors. Nanoscale, 2021, 13, 19966-19972.	5.6	6

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37	Molecule signatures in photoluminescence spectra of transition metal dichalcogenides. Physical Review Materials, 2018, 2, .	2.4	5
38	Electrically pumped graphene-based Landau-level laser. Physical Review Materials, 2018, 2, .	2.4	5
39	Criteria for deterministic single-photon emission in two-dimensional atomic crystals. Physical Review Materials, 2020, 4, .	2.4	5
40	Valley-exchange coupling probed by angle-resolved photoluminescence. Nanoscale Horizons, 2021, 7, 77-84.	8.0	5
41	Anisotropic exciton diffusion in atomically-thin semiconductors. 2D Materials, 2022, 9, 025008.	4.4	4
42	Microscopic Modeling of Pumpâ€“Probe Spectroscopy and Population Inversion in Transition Metal Dichalcogenides. Physica Status Solidi (B): Basic Research, 2020, 257, 2000223.	1.5	2
43	Disorder-induced broadening of excitonic resonances in transition metal dichalcogenides. Physical Review Materials, 2019, 3, .	2.4	2
44	Tailoring Coulomb correlations in twisted WSe2 bilayers. , 2021, , .		0
45	Twist-Tailoring Hybrid Excitons In Van Der Waals Homobilayers. , 2021, , .		0
46	Ultrafast Transition from Intra- to Interlayer Exciton Phases in a Van Der Waals Heterostructure. , 2019, , .		0
47	Internal structure and ultrafast dynamics of tailored excitons in van der Waals heterostructures. , 2019, , .		0
48	Excitons in twisted van der Waals bilayers: Internal structure and ultrafast dynamics. , 2020, , .		0