Ivan A Verzhbitskiy

List of Publications by Year
in descending order

44 papers	3,010 citations	331538 21 h-index	302012 39 g-index
44 all docs	44 docs citations	44 times ranked	6165 citing authors

#	Article	IF	Citations
1	Data-driven discovery of high performance layered van der Waals piezoelectric NbOI2. Nature Communications, 2022, 13, 1884.	5.8	22
2	Inâ€Plane Fieldâ€Driven Excitonic Electroâ€Optic Modulation in Monolayer Semiconductor. Advanced Optical Materials, 2022, 10, .	3.6	4
3	Giant second-harmonic generation in ferroelectric NbOI2. Nature Photonics, 2022, 16, 644-650.	15.6	57
4	Coupling of a 2D Heterostructure to a Photonic Polymer Waveguide via Mode-center Encapsulation. , 2021, , .		0
5	Electron tunneling at the molecularly thin 2D perovskite and graphene van der Waals interface. Nature Communications, 2020, 11, 5483.	5.8	35
6	Controlling the magnetic anisotropy in Cr2Ge2Te6 by electrostatic gating. Nature Electronics, 2020, 3, 460-465.	13.1	145
7	Measuring Valley Polarization in Two-Dimensional Materials with Second-Harmonic Spectroscopy. ACS Photonics, 2020, 7, 925-931.	3.2	22
8	Harnessing Excitonâ€“Exciton Annihilation in Two-Dimensional Semiconductors. Nano Letters, 2020, 20, 1647-1653.	4.5	18
9	Disorder-driven two-dimensional quantum phase transitions in Li _x MoS₂. 2D Materials, 2020, 7, 035013.	2.0	7
10	Giant gate-tunable bandgap renormalization and excitonic effects in a 2D semiconductor. Science Advances, 2019, 5, eaaw2347.	4.7	80
11	Polarity Tunable Trionic Electroluminescence in Monolayer WSe₂. Nano Letters, 2019, 19, 7470-7475.	4.5	20
12	Effects Of Structural Phase Transition On Thermoelectric Performance in Lithium-Intercalated Molybdenum Disulfide (Li_xMoS₂). ACS Applied Materials & Interfaces, 2019, 11, 12184-12189.	4.0	31
13	Elastomeric Waveguide on-Chip Coupling of an Encapsulated MoS2 Monolayer. ACS Photonics, 2019, 6, 595-599.	3.2	11
14	Suppressed Out-of-Plane Polarizability of Free Excitons in Monolayer WSe₂. ACS Nano, 2019, 13, 3218-3224.	7.3	21
15	Coupling 2D Materials to an Elastomer Waveguide. , 2019, , .		0
16	Molecularly thin two-dimensional hybrid perovskites with tunable optoelectronic properties due to reversible surface relaxation. Nature Materials, 2018, 17, 908-914.	13.3	295
17	Characterization of the second- and third-harmonic optical susceptibilities of atomically thin tungsten diselenide. Scientific Reports, 2018, 8, 10035.	1.6	57
18	Interlayer screening effects in WS ₂ /WSe ₂ van der Waals hetero-bilayer. 2D Materials, 2018, 5, 041003.	2.0	18

#	Article	IF	Citations
19	Electroluminescent Devices Based on 2D Semiconducting Transition Metal Dichalcogenides. Advanced Materials, 2018, 30, e1802687.	11.1	86
20	Chemical Stabilization of 1Tâ€² Phase Transition Metal Dichalcogenides with Giant Optical Kerr Nonlinearity. Journal of the American Chemical Society, 2017, 139, 2504-2511.	6.6	171
21	Determination of Crystal Axes in Semimetallic Tâ€²â€MoTe₂ by Polarized Raman Spectroscopy. Advanced Functional Materials, 2017, 27, 1604799.	7.8	47
22	Chalcogenide Nanosheets: Optical Signatures of Many-Body Effects and Electronic Band Structure. Nanostructure Science and Technology, 2017, , 133-162.	0.1	2
23	Efficient Carrier-to-Exciton Conversion in Field Emission Tunnel Diodes Based on MIS-Type van der Waals Heterostack. Nano Letters, 2017, 17, 5156-5162.	4.5	71
24	Excitonâ€“Plasmon Coupling and Electromagnetically Induced Transparency in Monolayer Semiconductors Hybridized with Ag Nanoparticles. Advanced Materials, 2016, 28, 2709-2715.	11.1	115
25	Engineering Bandgaps of Monolayer MoS₂ and WS₂ on Fluoropolymer Substrates by Electrostatically Tuned Manyâ€Body Effects. Advanced Materials, 2016, 28, 6457-6464.	11.1	116
26	Evidence for Fast Interlayer Energy Transfer in MoSe₂/WS₂ Heterostructures. Nano Letters, 2016, 16, 4087-4093.	4.5	205
27	Raman Fingerprints of Atomically Precise Graphene Nanoribbons. Nano Letters, 2016, 16, 3442-3447.	4.5	83
28	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. ACS Nano, 2015, 9, 8070-8077.	7.3	204
29	Strong Optical Absorption and Photocarrier Relaxation in 2-D Semiconductors. IEEE Journal of Quantum Electronics, 2015, 51, 1-6.	1.0	21
30	Tunable D peak in gated graphene. Nano Research, 2014, 7, 338-344.	5.8	20
31	Synthesis of structurally well-defined and liquid-phase-processable graphene nanoribbons. Nature Chemistry, 2014, 6, 126-132.	6.6	468
32	Bottom-Up Synthesis of Liquid-Phase-Processable Graphene Nanoribbons with Near-Infrared Absorption. ACS Nano, 2014, 8, 11622-11630.	7.3	138
33	Raman study on defective graphene: Effect of the excitation energy, type, and amount of defects. Physical Review B, 2013, 88, .	1.1	279
34	Raman scattering efficiency of graphene. Physical Review B, 2013, 87, .	1.1	82
35	Raman line shape studies of hydrogen cryosolutions. Journal of Physics: Conference Series, 2012, 397, 012058.	0.3	0
36	The isotropic spectrum of the CO2 Raman 2Î½3 overtone: A line-mixing band shape analysis at pressures up to several tens of atmospheres. Journal of Chemical Physics, 2011, 134, 224301.	1.2	4

#	Article	IF	Citations
37	Are asymmetric stretch Raman spectra by centrosymmetric molecules depolarized?: The 2Î½3 overtone of CO2. Journal of Chemical Physics, 2011, 134, 044318.	1.2	9
38	The isotropic remnant of the CO2 near-fully depolarized Raman 2Î½3 overtone. Journal of Chemical Physics, 2011, 134, 104310.	1.2	12
39	The depolarized Raman 2Î½3 overtone of CO2: A line-mixing shape analysis. Journal of Chemical Physics, 2011, 134, 194305.	1.2	6
40	Double Raman Scattering In Gas Mixtures. , 2010, , .		0
41	Double vibrational collision-induced Raman scattering by SF<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>â€“N<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow>	1.0	7
42	Evidence for an isotropic signature in double vibrational collision-induced Raman scattering: A point-polarizable molecule model. Physical Review A, 2010, 81, .	1.0	8
43	Evidence for double incoherent Raman scattering in binary gas mixtures:<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">SF</mml:mi><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:msub><mml:mo>â^’</mml:mo><mml:msub><mml:mi mathvariant="normal">N</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review A, 2010, 81, .	1.0	10
44	Modeâ€Center Placement of Monolayer WS 2 in a Photonic Polymer Waveguide. Advanced Optical Materials, 0, , 2101684.	3.6	3