Alexander A Puretzky

List of Publications by Year
in descending order

243 papers	14,633 citations	13865 67 h-index	22166 113 g-index
246 all docs	246 docs citations	246 times ranked	17838 citing authors

#	Article	IF	Citations
1	Synthesis of Novel Thin-Film Materials by Pulsed Laser Deposition. Science, 1996, 273, 898-903.	12.6	547
2	PdSe₂: Pentagonal Two-Dimensional Layers with High Air Stability for Electronics. Journal of the American Chemical Society, 2017, 139, 14090-14097.	13.7	509
3	Nonlinear Fano-Resonant Dielectric Metasurfaces. Nano Letters, 2015, 15, 7388-7393.	9.1	474
4	Equally Efficient Interlayer Exciton Relaxation and Improved Absorption in Epitaxial and Nonepitaxial MoS₂/WS₂ Heterostructures. Nano Letters, 2015, 15, 486-491.	9.1	337
5	Anisotropic Electron-Photon and Electron-Phonon Interactions in Black Phosphorus. Nano Letters, 2016, 16, 2260-2267.	9.1	328
6	Time-resolved imaging of gas phase nanoparticle synthesis by laser ablation. Applied Physics Letters, 1998, 72, 2987-2989.	3.3	318
7	In situ measurements and modeling of carbon nanotube array growth kinetics during chemical vapor deposition. Applied Physics A: Materials Science and Processing, 2005, 81, 223-240.	2.3	300
8	Interlayer Coupling in Twisted WSe₂/WS₂ Bilayer Heterostructures Revealed by Optical Spectroscopy. ACS Nano, 2016, 10, 6612-6622.	14.6	249
9	Perovskite Solar Cells with Near 100% Internal Quantum Efficiency Based on Large Single Crystalline Grains and Vertical Bulk Heterojunctions. Journal of the American Chemical Society, 2015, 137, 9210-9213.	13.7	246
10	Two-dimensional GaSe/MoSe ₂ misfit bilayer heterojunctions by van der Waals epitaxy. Science Advances, 2016, 2, e1501882.	10.3	239
11	Ultrathin nanosheets of CrSiTe₃: a semiconducting two-dimensional ferromagnetic material. Journal of Materials Chemistry C, 2016, 4, 315-322.	5.5	235
12	Controlled Vapor Phase Growth of Single Crystalline, Two-Dimensional GaSe Crystals with High Photoresponse. Scientific Reports, 2014, 4, 5497.	3.3	222
13	Patterned arrays of lateral heterojunctions within monolayer two-dimensional semiconductors. Nature Communications, 2015, 6, 7749.	12.8	213
14	Two-channel model for ultralow thermal conductivity of crystalline Tl ₃ VSe ₄. Science, 2018, 360, 1455-1458.	12.6	206
15	Interaction of carbon nanohorns with plants: Uptake and biological effects. Carbon, 2015, 81, 607-619.	10.3	196
16	Dynamics of laser ablation plume penetration through low pressure background gases. Applied Physics Letters, 1995, 67, 197-199.	3.3	189
17	Low-Frequency Interlayer Breathing Modes in Few-Layer Black Phosphorus. Nano Letters, 2015, 15, 4080-4088.	9.1	182
18	In-Plane Optical Anisotropy of Layered Gallium Telluride. ACS Nano, 2016, 10, 8964-8972.	14.6	179

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19	Low-Frequency Interlayer Raman Modes to Probe Interface of Twisted Bilayer MoS₂. Nano Letters, 2016, 16, 1435-1444.	9.1	177
20	Low Temperature Growth of Boron Nitride Nanotubes on Substrates. Nano Letters, 2005, 5, 2528-2532.	9.1	176
21	Nature of the band gap and origin of the electro-/photo-activity of Co3O4. Journal of Materials Chemistry C, 2013, 1, 4628.	5.5	176
22	Dynamics of Plume Propagation and Splitting during Pulsed-Laser Ablation. Physical Review Letters, 1997, 79, 1571-1574.	7.8	174
23	Structure and Formation Mechanism of Black TiO₂ Nanoparticles. ACS Nano, 2015, 9, 10482-10488.	14.6	170
24	Fast and highly anisotropic thermal transport through vertically aligned carbon nanotube arrays. Applied Physics Letters, 2006, 89, 223110.	3.3	157
25	Near-Edge X-ray Absorption Fine Structure Spectroscopy as a Tool for Investigating Nanomaterials. Small, 2006, 2, 26-35.	10.0	152
26	Low-Frequency Raman Fingerprints of Two-Dimensional Metal Dichalcogenide Layer Stacking Configurations. ACS Nano, 2015, 9, 6333-6342.	14.6	151
27	Dynamics of single-wall carbon nanotube synthesis by laser vaporization. Applied Physics A: Materials Science and Processing, 2000, 70, 153-160.	2.3	148
28	Molecular Beam-Controlled Nucleation and Growth of Vertically Aligned Single-Wall Carbon Nanotube Arrays. Journal of Physical Chemistry B, 2005, 109, 16684-16694.	2.6	137
29	Low Energy Implantation into Transition-Metal Dichalcogenide Monolayers to Form Janus Structures. ACS Nano, 2020, 14, 3896-3906.	14.6	136
30	Characterization of thin-film amorphous semiconductors using spectroscopic ellipsometry. Thin Solid Films, 2000, 377-378, 68-73.	1.8	134
31	Antioxidant Deactivation on Graphenic Nanocarbon Surfaces. Small, 2011, 7, 2775-2785.	10.0	133
32	Nucleation of Single-Walled Carbon Nanotubes. Physical Review Letters, 2003, 90, 145501.	7.8	127
33	In situ growth rate measurements and length control during chemical vapor deposition of vertically aligned multiwall carbon nanotubes. Applied Physics Letters, 2003, 83, 1851-1853.	3.3	127
34	Thickness-dependent charge transport in few-layer MoS₂field-effect transistors. Nanotechnology, 2016, 27, 165203.	2.6	124
35	Tailoring Vacancies Far Beyond Intrinsic Levels Changes the Carrier Type and Optical Response in Monolayer MoSe_{2â^'x} Crystals. Nano Letters, 2016, 16, 5213-5220.	9.1	121
36	Twisted MoSe₂ Bilayers with Variable Local Stacking and Interlayer Coupling Revealed by Low-Frequency Raman Spectroscopy. ACS Nano, 2016, 10, 2736-2744.	14.6	117

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37	In-Plane Heterojunctions Enable Multiphasic Two-Dimensional (2D) MoS₂ Nanosheets As Efficient Photocatalysts for Hydrogen Evolution from Water Reduction. ACS Catalysis, 2016, 6, 6723-6729.	11.2	116
38	In situ imaging and spectroscopy of single-wall carbon nanotube synthesis by laser vaporization. Applied Physics Letters, 2000, 76, 182-184.	3.3	115
39	Carbon Nanotubes Grown on Metal Microelectrodes for the Detection of Dopamine. Analytical Chemistry, 2016, 88, 645-652.	6.5	113
40	In situ control of the catalyst efficiency in chemical vapor deposition of vertically aligned carbon nanotubes on predeposited metal catalyst films. Applied Physics Letters, 2004, 84, 1759-1761.	3.3	110
41	Selective dissociation of SF6 molecules in a two-frequency infrared laser field. Optics Communications, 1976, 18, 517-521.	2.1	109
42	Photoluminescence from gas-suspended SiOx nanoparticles synthesized by laser ablation. Applied Physics Letters, 1998, 73, 438-440.	3.3	108
43	Pulsed Laser Deposition of Photoresponsive Twoâ€Dimensional GaSe Nanosheet Networks. Advanced Functional Materials, 2014, 24, 6365-6371.	14.9	108
44	Phonon localization in heat conduction. Science Advances, 2018, 4, eaat9460.	10.3	108
45	Imaging of Vapor Plumes Produced by Matrix Assisted Laser Desorption: A Plume Sharpening Effect. Physical Review Letters, 1999, 83, 444-447.	7.8	103
46	Van der Waals Epitaxial Growth of Two-Dimensional Single-Crystalline GaSe Domains on Graphene. ACS Nano, 2015, 9, 8078-8088.	14.6	103
47	Ultrafast Charge Transfer and Hybrid Exciton Formation in 2D/0D Heterostructures. Journal of the American Chemical Society, 2016, 138, 14713-14719.	13.7	102
48	Dynamics of plume propagation, splitting, and nanoparticle formation during pulsed-laser ablation. Applied Surface Science, 1998, 127-129, 151-158.	6.1	91
49	Directed Integration of Tetracyanoquinodimethane-Cu Organic Nanowires into Prefabricated Device Architectures. Advanced Materials, 2006, 18, 2184-2188.	21.0	91
50	Cooperative Island Growth of Large-Area Single-Crystal Graphene on Copper Using Chemical Vapor Deposition. ACS Nano, 2014, 8, 5657-5669.	14.6	91
51	Single-Crystal Organic Nanowires of Copperâ€“Tetracyanoquinodimethane: Synthesis, Patterning, Characterization, and Device Applications. Angewandte Chemie - International Edition, 2007, 46, 2650-2654.	13.8	90
52	Rapid Growth of Long, Vertically Aligned Carbon Nanotubes through Efficient Catalyst Optimization Using Metal Film Gradients. Nano Letters, 2004, 4, 1939-1942.	9.1	88
53	Dynamics of plume propagation and splitting during pulsed-laser ablation of Si in He and Ar. Physical Review B, 1998, 58, 1533-1543.	3.2	87
54	Investigations of single-wall carbon nanotube growth by time-restricted laser vaporization. Physical Review B, 2002, 65, .	3.2	87

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55	Excitonic Dynamics in Janus MoSSe and WSSe Monolayers. Nano Letters, 2021, 21, 931-937.	9.1	86
56	Isoelectronic Tungsten Doping in Monolayer MoSe₂ for Carrier Type Modulation. Advanced Materials, 2016, 28, 8240-8247.	21.0	85
57	Suppression of Defects and Deep Levels Using Isoelectronic Tungsten Substitution in Monolayer MoSe₂. Advanced Functional Materials, 2017, 27, 1603850.	14.9	84
58	Metastable Copperâ€Phthalocyanine Singleâ€Crystal Nanowires and Their Use in Fabricating Highâ€Performance Fieldâ€Effect Transistors. Advanced Functional Materials, 2009, 19, 3776-3780.	14.9	81
59	Complex and Noncentrosymmetric Stacking of Layered Metal Dichalcogenide Materials Created by Screw Dislocations. Journal of the American Chemical Society, 2017, 139, 3496-3504.	13.7	81
60	Defect-Mediated Phase Transformation in Anisotropic Two-Dimensional PdSe₂ Crystals for Seamless Electrical Contacts. Journal of the American Chemical Society, 2019, 141, 8928-8936.	13.7	81
61	Twoâ€Dimensional Palladium Diselenide with Strong Inâ€Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition. Advanced Materials, 2020, 32, e1906238.	21.0	81
62	Enhancement of van der Waals Interlayer Coupling through Polar Janus MoSSe. Journal of the American Chemical Society, 2020, 142, 17499-17507.	13.7	80
63	Laser ablation plume thermalization dynamics in background gases: combined imaging, optical absorption and emission spectroscopy, and ion probe measurements. Applied Surface Science, 1996, 96-98, 131-138.	6.1	75
64	Gas-phase diagnostics and LIF-imaging of 3-hydroxypicolinic acid maldi-matrix plumes. Chemical Physics Letters, 1998, 286, 425-432.	2.6	74
65	Measuring photoionization cross-sections of excited atomic states. Applied Physics Berlin, 1976, 9, 335-337.	1.4	70
66	Selective photoionization of atoms by laser radiation and its applications. Progress in Quantum Electronics, 1977, 5, 139-203.	7.0	70
67	Structure and optical properties of amorphous diamond films prepared by ArF laser ablation as a function of carbon ion kinetic energy. Applied Physics Letters, 1998, 73, 2591-2593.	3.3	70
68	Metal-assisted hydrogen storage on Pt-decorated single-walled carbon nanohorns. Carbon, 2012, 50, 4953-4964.	10.3	69
69	Single walled carbon nanohorns as photothermal cancer agents. Lasers in Surgery and Medicine, 2011, 43, 43-51.	2.1	67
70	Edge-Controlled Growth and Etching of Two-Dimensional GaSe Monolayers. Journal of the American Chemical Society, 2017, 139, 482-491.	13.7	65
71	Improving Light Harvesting in Dye-Sensitized Solar Cells Using Hybrid Bimetallic Nanostructures. ACS Photonics, 2016, 3, 385-394.	6.6	64
72	Seamless Staircase Electrical Contact to Semiconducting Graphene Nanoribbons. Nano Letters, 2017, 17, 6241-6247.	9.1	64

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73	Real-time imaging of vertically aligned carbon nanotube array growth kinetics. Nanotechnology, 2008, 19, 055605.	2.6	61
74	Accelerated Expansion of Laser-Ablated Materials near a Solid Surface. Physical Review Letters, 1995, 75, 4706-4709.	7.8	60
75	Gas-phase nanoparticle formation and transport during pulsed laser deposition of Y1Ba2Cu3O7â‘d. Applied Physics Letters, 1999, 74, 3788-3790.	3.3	60
76	Realâ€Time Observation of Orderâ€Disorder Transformation of Organic Cations Induced Phase Transition and Anomalous Photoluminescence in Hybrid Perovskites. Advanced Materials, 2018, 30, e1705801.	21.0	60
77	Anomalous interlayer vibrations in strongly coupled layered PdSe ₂. 2D Materials, 2018, 5, 035016.	4.4	60
78	Model for Self-Assembly of Carbon Nanotubes from Acetylene Based on Real-Time Studies of Vertically Aligned Growth Kinetics. Journal of Physical Chemistry C, 2009, 113, 15484-15491.	3.1	59
79	The effect of annealing on the electrical and thermal transport properties of macroscopic bundles of long multi-wall carbon nanotubes. Physica B: Condensed Matter, 2007, 388, 326-330.	2.7	57
80	Selective Patterned Growth of Singleâ€Crystal Agâ€“TCNQ Nanowires for Devices by Vaporâ€“Solid Chemical Reaction. Advanced Functional Materials, 2008, 18, 3043-3048.	14.9	57
81	Separation of junction and bundle resistance in single wall carbon nanotube percolation networks by impedance spectroscopy. Applied Physics Letters, 2010, 97, .	3.3	56
82	In Vitro and in Vivo Studies of Single-Walled Carbon Nanohorns with Encapsulated Metallofullerenes and Exohedrally Functionalized Quantum Dots. Nano Letters, 2010, 10, 2843-2848.	9.1	56
83	Nature of Catalytic Active Sites Present on the Surface of Advanced Bulk Tantalum Mixed Oxide Photocatalysts. ACS Catalysis, 2013, 3, 2920-2929.	11.2	56
84	Simple model of the interrelation between single- and multiwall carbon nanotube growth rates for the CVD process. Physical Review B, 2007, 75, .	3.2	53
85	Condensed phase growth of single-wall carbon nanotubes from laser annealed nanoparticulates. Applied Physics Letters, 2001, 78, 3307-3309.	3.3	52
86	Comparative diagnostics of ArF- and KrF-laser generated carbon plumes used for amorphous diamond-like carbon film deposition. Applied Surface Science, 1996, 96-98, 859-865.	6.1	50
87	Raman study of Fano interference in pâ€type doped silicon. Journal of Raman Spectroscopy, 2010, 41, 1759-1764.	2.5	49
88	Room-Temperature Electronâ€“Hole Liquid in Monolayer MoS₂. ACS Nano, 2019, 13, 10351-10358.	14.6	49
89	Growth, Patterning, and One-Dimensional Electron -Transport Properties of Self-Assembled Ag-TCNQF4 Organic Nanowires. Chemistry of Materials, 2009, 21, 4275-4281.	6.7	48
90	Modeling of dynamical processes in laser ablation. Applied Surface Science, 1996, 96-98, 14-23.	6.1	47

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91	Digital Transfer Growth of Patterned 2D Metal Chalcogenides by Confined Nanoparticle Evaporation. ACS Nano, 2014, 8, 11567-11575.	14.6	47
92	Near-field enhanced ultraviolet resonance Raman spectroscopy using aluminum bow-tie nano-antenna. Applied Physics Letters, 2012, 101, 113116.	3.3	46
93	Strain tolerance of two-dimensional crystal growth on curved surfaces. Science Advances, 2019, 5, eaav4028.	10.3	46
94	Revealing the Preferred Interlayer Orientations and Stackings of Twoâ€Ðimensional Bilayer Gallium Selenide Crystals. Angewandte Chemie - International Edition, 2015, 54, 2712-2717.	13.8	45
95	Characteristics of multiple-photon dissociation of OsO4 molecule by two frequency tunable CO2-laser pulses. Optics Communications, 1978, 25, 69-74.	2.1	44
96	Synthesis and characterization of single-wall carbon nanotubeâ€“amorphous diamond thin-film composites. Applied Physics Letters, 2002, 81, 2097-2099.	3.3	44
97	Observation of two distinct negative trions in tungsten disulfide monolayers. Physical Review B, 2015, 92, .	3.2	44
98	Exploring Anomalous Polarization Dynamics in Organometallic Halide Perovskites. Advanced Materials, 2018, 30, 1705298.	21.0	44
99	Ultrafast Spectral Dynamics of CsPb(Br_xCl_{1â€“x})₃ Mixed-Halide Nanocrystals. ACS Photonics, 2018, 5, 3575-3583.	6.6	44
100	Samarium-Activated La₂Hf₂O₇ Nanoparticles as Multifunctional Phosphors. ACS Omega, 2019, 4, 17956-17966.	3.5	44
101	Highly selective and efficient multiphoton dissociation of polyatomic molecules in multiple-frequency IR-laser fields. Applied Physics B, Photophysics and Laser Chemistry, 1985, 36, 93-103.	1.5	43
102	Nanoparticle generation and transport resulting from femtosecond laser ablation of ultrathin metal films: Time-resolved measurements and molecular dynamics simulations. Applied Physics Letters, 2014, 104, .	3.3	42
103	Ultrafast Dynamics of Metal Plasmons Induced by 2D Semiconductor Excitons in Hybrid Nanostructure Arrays. ACS Photonics, 2016, 3, 2389-2395.	6.6	42
104	Isotope-Engineering the Thermal Conductivity of Two-Dimensional MoS₂. ACS Nano, 2019, 13, 2481-2489.	14.6	42
105	Pulsed Growth of Vertically Aligned Nanotube Arrays with Variable Density. ACS Nano, 2010, 4, 7573-7581.	14.6	41
106	Controllable Growth of Perovskite Films by Roomâ€Temperature Air Exposure for Efficient Planar Heterojunction Photovoltaic Cells. Angewandte Chemie - International Edition, 2015, 54, 14862-14865.	13.8	41
107	Intrinsic Defects in MoS₂ Grown by Pulsed Laser Deposition: From Monolayers to Bilayers. ACS Nano, 2021, 15, 2858-2868.	14.6	40
108	Isotope-selective dissociation of CCl4 molecule by excitation of composite vibrational bands by intense infrared field. Physics Letters, Section A: General, Atomic and Solid State Physics, 1976, 56, 183-185.	2.1	39

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109	Modeling of plume dynamics in laser ablation processes for thin film deposition of materials. Physics of Plasmas, 1996, 3, 2203-2209.	1.9	39
110	Growth of highly doped pâ€type ZnTe films by pulsed laser ablation in molecular nitrogen. Applied Physics Letters, 1995, 67, 2545-2547.	3.3	38
111	High-density vertically aligned multiwalled carbon nanotubes with tubular structures. Applied Physics Letters, 2005, 86, 253105.	3.3	38
112	Interlayer bond polarizability model for stacking-dependent low-frequency Raman scattering in layered materials. Nanoscale, 2017, 9, 15340-15355.	5.6	38
113	Direct measurement of population on molecular vibrational levels excited by laser radiation. Chemical Physics Letters, 1972, 16, 252-254.	2.6	37
114	Theory and numerical modeling of the accelerated expansion of laser-ablated materials near a solid surface. Physical Review B, 1999, 60, 8373-8382.	3.2	37
115	High-temperature magnetostructural transition in van der Waals-layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub Physical Review Materials, 2017, 1, .	2.4	37
116	Synthesis and Characterization of Molybdenum Carbide Clusters MonC4n, (n = 1 to 4). Science, 1994, 263, 68-71.	12.6	35
117	Laser-solid interaction and dynamics of laser-ablated materials. Applied Surface Science, 1996, 96-98, 45-49.	6.1	35
118	Direct measurement of multiphoton molecular absorption of IR laser radiation by pyroelectric detector. Applied Physics Berlin, 1980, 22, 409-413.	1.4	34
119	Cumulative and continuous laser vaporization synthesis of single wall carbon nanotubes and nanohorns. Applied Physics A: Materials Science and Processing, 2008, 93, 849-855.	2.3	34
120	dissociation of the OsO4 molecule by intense IR laser pulses. Chemical Physics Letters, 1977, 45, 231-234.	2.6	33
121	Flux-Dependent Growth Kinetics and Diameter Selectivity in Single-Wall Carbon Nanotube Arrays. ACS Nano, 2011, 5, 8311-8321.	14.6	33
122	Nonequilibrium Synthesis of TiO₂ Nanoparticle â€œBuilding Blocksâ€•for Crystal Growth by Sequential Attachment in Pulsed Laser Deposition. Nano Letters, 2017, 17, 4624-4633.	9.1	33
123	A statistical model approximation for perovskite solid-solutions: A Raman study of lead-zirconate-titanate single crystal. Journal of Applied Physics, 2013, 113, .	2.5	32
124	Fundamental Bulk/Surface Structureâ€“Photoactivity Relationships of Supported (Rh2â€“yCryO3)/GaN Photocatalysts. Journal of Physical Chemistry Letters, 2013, 4, 3719-3724.	4.6	32
125	Mechanisms affecting kinetic energies of laserâ€ablated materials. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 1111-1114.	2.1	31
126	Nonâ€Equilibrium Synthesis of Highly Active Nanostructured, Oxygenâ€Incorporated Amorphous Molybdenum Sulfide HER Electrocatalyst. Small, 2020, 16, e2004047.	10.0	29

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127	Atomic Insight into Thermolysisâ€Driven Growth of 2D MoS₂. Advanced Functional Materials, 2019, 29, 1902149.	14.9	28
128	Computational modeling of physical processes during laser ablation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 47, 70-77.	3.5	27
129	Synthesis and Photoluminescence Properties of 2D Phenethylammonium Lead Bromide Perovskite Nanocrystals. Small Methods, 2017, 1, 1700245.	8.6	27
130	Engineering Edge States of Graphene Nanoribbons for Narrow-Band Photoluminescence. ACS Nano, 2020, 14, 5090-5098.	14.6	27
131	Influence of collisions and pulse intensity on multiple photon absorption in SF6. Optics Communications, 1980, 34, 81-85.	2.1	26
132	Time-resolved diagnostics of single wall carbon nanotube synthesis by laser vaporization. Applied Surface Science, 2002, 197-198, 552-562.	6.1	26
133	Anisotropic Phonon Response of Fewâ€Layer PdSe₂ under Uniaxial Strain. Advanced Functional Materials, 2020, 30, 2003215.	14.9	26
134	Species-resolved imaging and gated photon counting Spectroscopy of laser ablation plume dynamics During krf- and arf-laser pld of amorphous diamond films. Materials Research Society Symposia Proceedings, 1995, 397, 55.	0.1	25
135	Pulsed laser CVD investigations of single-wall carbon nanotube growth dynamics. Applied Physics A: Materials Science and Processing, 2008, 93, 987-993.	2.3	25
136	Investigation ofGd3N@C2nâ€,(40â‰nâ‰44)family by Raman and inelastic electron tunneling spectroscopy. Physical Review B, 2010, 81, .	3.2	25
137	Photocarrier Transfer across Monolayer MoS₂â€“MoSe₂ Lateral Heterojunctions. ACS Nano, 2018, 12, 7086-7092.	14.6	25
138	Oxidization stability of atomically precise graphene nanoribbons. Physical Review Materials, 2018, 2, .	2.4	25
139	Investigation of multiple photon excitation of OsO4 by dissociation yield saturation. Optics Communications, 1978, 27, 79-84.	2.1	24
140	LIF imaging and gas-phase diagnostics of laser desorbed MALDI-matrix plumes. Applied Surface Science, 1998, 127-129, 248-254.	6.1	24
141	Operation of individual integrally gated carbon nanotube field emitter cells. Applied Physics Letters, 2002, 81, 2860-2862.	3.3	24
142	Raman Study of the Structural Distortion in the Ni_{1â€“x}Co_xTiO₃ Solid Solution. Inorganic Chemistry, 2016, 55, 9436-9444.	4.0	24
143	Anatomy of a Visible Light Activated Photocatalyst for Water Splitting. ACS Catalysis, 2018, 8, 6650-6658.	11.2	24
144	Fluorination of â€œbrick and mortarâ€•soft-templated graphitic ordered mesoporous carbons for high power lithium-ion battery. Journal of Materials Chemistry A, 2013, 1, 9414.	10.3	23

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145	Uniform, Homogenous Coatings of Carbon Nanohorns on Arbitrary Substrates from Common Solvents. ACS Applied Materials & Interfaces, 2013, 5, 13153-13160.	8.0	23
146	Bottom up synthesis of boron-doped graphene for stable intermediate temperature fuel cell electrodes. Carbon, 2017, 123, 605-615.	10.3	23
147	Ultrafast Exciton Dissociation at the 2D-WS₂ Monolayer/Perovskite Interface. Journal of Physical Chemistry C, 2018, 122, 28910-28917.	3.1	23
148	A Facile High-speed Vibration Milling Method to Water-disperse Single-walled Carbon Nanohorns. Chemistry of Materials, 2010, 22, 347-351.	6.7	22
149	Real-time optical diagnostics of graphene growth induced by pulsed chemical vapor deposition. Nanoscale, 2013, 5, 6507.	5.6	22
150	DNA Methylation Detection Using Resonance andÂNanobowtie-Antenna-Enhanced Raman Spectroscopy. Biophysical Journal, 2018, 114, 2498-2506.	0.5	21
151	Atomically Precise PdSe2 Pentagonal Nanoribbons. ACS Nano, 2020, 14, 1951-1957.	14.6	21
152	Structural control of vertically aligned multiwalled carbon nanotubes by radio-frequency plasmas. Applied Physics Letters, 2005, 87, 173106.	3.3	20
153	A laser-deposition approach to compositional-spread discovery of materials on conventional sample sizes. Measurement Science and Technology, 2005, 16, 21-31.	2.6	20
154	Imperfect surface order and functionalization in vertical carbon nanotube arrays probed by near edge X-ray absorption fine structure spectroscopy (NEXAFS). Physical Chemistry Chemical Physics, 2006, 8, 5038.	2.8	20
155	Persistent photoconductivity in two-dimensional Mo_{1â^'x}W_xSe₂â€“MoSe₂ van der Waals heterojunctions. Journal of Materials Research, 2016, 31, 923-930.	2.6	20
156	Integrally gated carbon nanotube field emission cathodes produced by standard microfabrication techniques. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 957.	1.6	19
157	Formation studies and controlled production of carbon nanohorns using continuousin situcharacterization techniques. Nanotechnology, 2007, 18, 185604.	2.6	19
158	Size, structure, and luminescence of Nd2Zr2O7 nanoparticles by molten salt synthesis. Journal of Materials Science, 2019, 54, 12411-12423.	3.7	19
159	Strain-Induced Growth of Twisted Bilayers during the Coalescence of Monolayer MoS₂ Crystals. ACS Nano, 2021, 15, 4504-4517.	14.6	19
160	Ir absorption spectrum of CrO2Cl2 molecules for high-lying states of the vibrational quasi-continuum. Chemical Physics, 1986, 106, 131-149.	1.9	18
161	Amorphous Diamond Films Deposited by Pulsed-Laser Ablation: the Optimum Carbon-Ion Kinetic Energy and Effects of Laser Wavelength. Materials Research Society Symposia Proceedings, 1998, 526, 325.	0.1	18
162	The electrodeposition of metal at metal/carbon nanotube junctions. Chemical Physics Letters, 2002, 361, 525-529.	2.6	18

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163	In situ timeâ€resolved measurements of carbon nanotube and nanohorn growth. Physica Status Solidi (B): Basic Research, 2007, 244, 3944-3949.	1.5	18
164	Study of the visible emission induced by IR multipleâ€photon excitation of OsO4. Journal of Chemical Physics, 1986, 84, 2020-2034.	3.0	16
165	Revealing the surface and bulk regimes of isothermal graphene nucleation and growth on Ni with in situ kinetic measurements and modeling. Carbon, 2014, 79, 256-264.	10.3	16
166	Multiple infrared photon absorption in OsO4. Applied Physics Berlin, 1979, 19, 75-79.	1.4	15
167	Vibrational spectrum of the octahedral <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Y</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow /></mml:msub></mml:mrow></mml:math>@C<mml:math	3.2	15
168	Black Anatase Formation by Annealing of Amorphous Nanoparticles and the Role of the Ti₂O₃ Shell in Self-Organized Crystallization by Particle Attachment. ACS Applied Materials & Interfaces, 2017, 9, 22018-22025.	8.0	15
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