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List of Publications by Year in descending order

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99 papers	1,848 citations	304743 22 h-index	330143 37 g-index
101 all docs	101 docs citations	101 times ranked	1534 citing authors

#	Article	IF	Citations
1	AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space. EPJ Quantum Technology, 2020, 7, .	6.3	190
2	A procedure for identifying textile bast fibres using microscopy: Flax, nettle/ramie, hemp and jute. Ultramicroscopy, 2010, 110, 1192-1197.	1.9	129
3	An atom-focusing mirror. Nature, 1997, 390, 244-244.	27.8	89
4	Imaging with neutral atomsâ€"a new matterâ€wave microscope. Journal of Microscopy, 2008, 229, 1-5.	1.8	84
5	Determining the fibrillar orientation of bast fibres with polarized light microscopy: the modified Herzog test (red plate test) explained. Journal of Microscopy, 2013, 252, 159-168.	1.8	47
6	Comment on â€œ30,000-Year-Old Wild Flax Fibersâ€• Science, 2010, 328, 1634-1634.	12.6	46
7	The structure of the Î±-quartz (0001) surface investigated using helium atom scattering and atomic force microscopy. Surface Science, 2007, 601, 4407-4411.	1.9	42
8	Fluorinated graphene provides long lasting ice inhibition in high humidity. Carbon, 2019, 141, 451-456.	10.3	42
9	Poissonâ€™s spot with molecules. Physical Review A, 2009, 79, .	2.5	40
10	Nettle as a distinct Bronze Age textile plant. Scientific Reports, 2012, 2, 664.	3.3	39
11	Focusing of a neutral helium beam below one micron. New Journal of Physics, 2012, 14, 073014.	2.9	36
12	Flax lookâ€alikes: Pitfalls of ancient plant fibre identification. Archaeometry, 2014, 56, 951-960.	1.3	36
13	Direct Images of the Virtual Source in a Supersonic Expansion. Journal of Physical Chemistry A, 2007, 111, 12620-12628.	2.5	34
14	Viking and Early Middle Ages Northern Scandinavian Textiles Proven to be made with Hemp. Scientific Reports, 2013, 3, 2686.	3.3	34
15	The growth of ultra thin Cu-films on Pt(111), probed by helium atom scattering and scanning tunnelling microscopy. Surface Science, 1997, 377-379, 891-894.	1.9	33
16	Free-standing silicon-nitride zoneplates for neutral-helium microscopy. Microelectronic Engineering, 2010, 87, 1011-1014.	2.4	32
17	Focusing Elements and Design Considerations for a Scanning Helium Microscope (SHeM). Surface Review and Letters, 2003, 10, 249-255.	1.1	31
18	An ellipsoidal mirror for focusing neutral atomic and molecular beams. New Journal of Physics, 2010, 12, 033018.	2.9	29

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19	Finite-size limitations on Quality Factor of guided resonance modes in 2D Photonic Crystals. Optics Express, 2013, 21, 23640.	3.4	26
20	Particleâ€“wave discrimination in Poisson spot experiments. New Journal of Physics, 2011, 13, 065016.	2.9	25
21	Material properties particularly suited to be measured with helium scattering: selected examples from 2D materials, van der Waals heterostructures, glassy materials, catalytic substrates, topological insulators and superconducting radio frequency materials. Physical Chemistry Chemical Physics, 2021, 23, 7653-7672.	2.8	25
22	Label-free impedance flow cytometry for nanotoxicity screening. Scientific Reports, 2020, 10, 142.	3.3	25
23	Observation of an adlayer-driven substrate reconstruction in Cu-Pt(111). Physical Review B, 1998, 58, R10195-R10198.	3.2	24
24	Observation of the Boson Peak at the Surface of Vitreous Silica. Physical Review Letters, 2007, 99, 035503.	7.8	24
25	Neutral atom and molecule focusing using a Fresnel zone plate. Journal of Vacuum Science & Technology B, 2008, 26, 2374-2379.	1.3	22
26	Theoretical model of the helium pinhole microscope. Physical Review A, 2016, 94, .	2.5	21
27	A theoretical investigation of the optical properties of metal nanoparticles in water for photo thermal conversion enhancement. Energy Conversion and Management, 2017, 149, 536-542.	9.2	21
28	Anomalous Phonon Behavior: Blueshift of the Surface Boson Peak in Silica Glass with Increasing Temperature. Physical Review Letters, 2008, 100, 135504.	7.8	20
29	Optimization of an electron beam lithography instrument for fast, large area writing at 10â€‰kV acceleration voltage. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 043202.	1.2	20
30	Is Crossâ€Section Shape a Distinct Feature in Plant Fibre Identification?. Archaeometry, 2021, 63, 216-226.	1.3	20
31	Field ionization detection of supersonic molecular beams. Review of Scientific Instruments, 2004, 75, 405-414.	1.3	19
32	Focusing of a neutral helium beam with a photon-sieve structure. Physical Review A, 2015, 91, .	2.5	18
33	The Beynon Gabor zone plate: a new tool for de Broglie matter waves and hard X-rays? An off axis and focus intensity investigation. Optics Express, 2013, 21, 28483.	3.4	17
34	Bending Rigidity of 2D Silica. Physical Review Letters, 2018, 120, 226101.	7.8	17
35	Graphene and graphene oxide on Ir(111) are transparent to wetting but not to icing. Carbon, 2021, 174, 396-403.	10.3	17
36	HOMOEPITAXIAL GROWTH ON Cu(111) PROBED BY HELIUM ATOM SCATTERING. Surface Review and Letters, 1994, 01, 509-512.	1.1	16

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37	Optical properties of mirrors for focusing of non-normal incidence atom beams. Review of Scientific Instruments, 1999, 70, 2960-2967.	1.3	16
38	A free jet (supersonic), molecular beam source with automatized, 50 nm precision nozzle-skimmer positioning. Review of Scientific Instruments, 2013, 84, 093303.	1.3	16
39	Two Dimensional Imaging of the Virtual Source of a Supersonic Beam: Helium at 125 K. Journal of Physical Chemistry A, 2014, 118, 4-12.	2.5	16
40	Large area microwave plasma CVD of diamond using composite right/left-handed materials. Diamond and Related Materials, 2021, 116, 108394.	3.9	16
41	Identifying plant fibre textiles from Norwegian Merovingian Period and Viking Age graves: The Late Iron Age Collection of the University Museum of Bergen. Journal of Archaeological Science: Reports, 2017, 13, 281-285.	0.5	15
42	Single crystal optic elements for helium atom microscopy. Review of Scientific Instruments, 2000, 71, 2625-2634.	1.3	14
43	Pillars or Pancakes? Self-Cleaning Surfaces without Coating. Nano Letters, 2018, 18, 7509-7514.	9.1	14
44	Surface dynamics measurements of silica glass. Physical Review B, 2008, 78, .	3.2	13
45	Theoretical model of the helium zone plate microscope. Physical Review A, 2017, 95, .	2.5	13
46	Is It Hop? Identifying Hop Fibres in a European Historical Context. Archaeometry, 2019, 61, 494-505.	1.3	13
47	An optical profilometer for characterizing complex surfaces under high vacuum conditions. Precision Engineering, 2008, 32, 182-185.	3.4	12
48	Zero-order filter for diffractive focusing of de Broglie matter waves. Physical Review A, 2017, 95, .	2.5	12
49	Flexible thin metal crystals as focusing mirrors for neutral atomic beams. Physical Review B, 2017, 95, .	3.2	12
50	Exploring proximity effects and large depth of field in helium ion beam lithography: large-area dense patterns and tilted surface exposure. Nanotechnology, 2018, 29, 275301.	2.6	12
51	Helium reflectivity of the Si(111)-(1Ã—1) H surface for use in atom optical elements. Chemical Physics Letters, 1999, 303, 107-110.	2.6	11
52	Probing Surfaces with Thermal He Atoms: Scattering and Microscopy with a Soft Touch. Springer Series in Surface Sciences, 2013, , 333-365.	0.3	11
53	A Giant Reconstruction of Î±-quartz (0001) Interpreted as Three Domains of Nano Dauphine Twins. Scientific Reports, 2015, 5, 14545.	3.3	11
54	Brightness and virtual source size of a supersonic deuterium beam. Physical Review A, 2012, 86, .	2.5	10

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55	Field ionization of free helium atoms: Correlation between the kinetic energy of ionized atoms and probability of their field ionization. Applied Surface Science, 2008, 254, 4365-4369.	6.1	9
56	Comparison of a new neuromuscular transmission monitor compressomyograph with mechanomyograph. British Journal of Anaesthesia, 2008, 100, 344-350.	3.4	9
57	Field ionization of helium in a supersonic beam: Kinetic energy of neutral atoms and probability of their field ionization. Ultramicroscopy, 2009, 109, 413-417.	1.9	9
58	Underwater Superoleophobic Sapphire (0001) Surfaces. Journal of Physical Chemistry C, 2015, 119, 15333-15338.	3.1	9
59	Atomic resolution imaging of beryl: an investigation of the nanoâ€channel occupation. Journal of Microscopy, 2017, 265, 245-250.	1.8	9
60	Work Function-Driven Hot Electron Extraction in a Bimetallic Plasmonic MIM Device. ACS Photonics, 2018, 5, 1202-1207.	6.6	9
61	First experimental evidence of hop fibres in historical textiles. Archaeological and Anthropological Sciences, 2020, 12, 1.	1.8	9
62	Spatial mapping in the electron-impact ion-source of a residual gas analyser. Vacuum, 1999, 53, 207-210.	3.5	8
63	Phase-stepping optical profilometry of atom mirrors. Journal Physics D: Applied Physics, 2003, 36, 1842-1849.	2.8	8
64	Low-energy surface phonons onÎ±-quartz (0001). Physical Review B, 2008, 78, .	3.2	8
65	Center-line intensity of a supersonic helium beam. Physical Review A, 2018, 98, .	2.5	8
66	Low-energy electron ionization mass spectrometer for efficient detection of low mass species. Review of Scientific Instruments, 2021, 92, 073305.	1.3	8
67	Surface Debye temperature of Î±-quartz (0001). Surface Science, 2008, 602, 1080-1083.	1.9	7
68	Vibrational excitations of glass observed using helium atom scattering. Journal of Physics Condensed Matter, 2008, 20, 224003.	1.8	7
69	Nanometer-Resolution Mask Lithography with Matter Waves: Near-Field Binary Holography. Physical Review Applied, 2019, 11, .	3.8	7
70	Mechanical properties of ultra-thin single crystals for atom-mirror applications: Au(001), Si(001). Journal Physics D: Applied Physics, 1999, 32, 2666-2673.	2.8	6
71	Nanostructuring of free-standing, dielectric membranes using electron-beam lithography. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 06F402.	1.2	6
72	Velocity distributions in microskimmer supersonic expansion helium beams: High precision measurements and modeling. Review of Scientific Instruments, 2018, 89, 113301.	1.3	6

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73	A Broad-Range Fluorescence Lifetime pH Sensing Material Based on a Single Organic Fluorophore. Journal of Fluorescence, 2019, 29, 1125-1131.	2.5	6
74	The Covid-19 shutdown: when studying turns digital, students want more structure. Physics Education, 2021, 56, 055004.	0.5	6
75	Optimal Design of Grid-Based Binary Holograms for Matter-Wave Lithography. Physical Review Applied, 2017, 8, .	3.8	5
76	Fast resolution change in neutral helium atom microscopy. Review of Scientific Instruments, 2018, 89, 053702.	1.3	5
77	True-to-size surface mapping with neutral helium atoms. Physical Review A, 2021, 103, .	2.5	5
78	Retrieval practice of a hierarchical principle structure in university introductory physics: Making stronger students. Physical Review Physics Education Research, 2020, 16, .	2.9	5
79	Simple design for the transportation ofex situprepared hydrogen passivated silicon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 285-287.	2.1	4
80	Measuring the localized surface plasmon resonance effect on large arrays (5â€‰mm Ã— 5â€‰mm) of gold and aluminum nanoparticles on borosilicate glass substrates, fabricated by electron beam lithography. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 06F410.	1.2	4
81	A modified time-of-flight method for precise determination of high speed ratios in molecular beams. Review of Scientific Instruments, 2016, 87, 023102.	1.3	4
82	Light absorption and scattering of 40â€“170â€‰nm gold nanoparticles on glass substrates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, 06G403.	1.2	4
83	The use of surfactant-filled mesoporous silica as an immobilising medium for a fluorescence lifetime pH indicator, providing long-term calibration stability. RSC Advances, 2019, 9, 37241-37244.	3.6	4
84	Atom sieve for nanometer resolution neutral helium microscopy. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	3
85	Neutral-helium-atom diffraction from a micron-scale periodic structure: Photonic-crystal-membrane characterization. Physical Review A, 2017, 95, .	2.5	3
86	Temperature-Dependent Bending Rigidity of AB -Stacked Bilayer Graphene. Physical Review Letters, 2021, 127, 266102.	7.8	3
87	Representations of electricity: the development of a visual language for electrical phenomena. Interdisciplinary Science Reviews, 2002, 27, 257-270.	1.4	2
88	Lab-on-a-chip device for fabrication of therapeutic microbubbles on demand. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.8	2
89	Temperature induced color change in gold nanoparticle arrays: Investigating the annealing effect on the localized surface plasmon resonance. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	2
90	9-Acridinemethanamine and Acridine-9-Carboxaldehyde as Potential Fluorescence Lifetime pH Indicators. Journal of Fluorescence, 2020, 30, 901-906.	2.5	2

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91	Integrating effective learning strategies in basic physics lectures: A thematic analysis. Physical Review Physics Education Research, 2021, 17, .	2.9	2
92	An atom passing through a hole in a dielectric membrane: impact of dispersion forces on mask-based matter-wave lithography. Journal of Physics B: Atomic, Molecular and Optical Physics, 2022, 55, 025401.	1.5	2
93	Variation of bending rigidity with material density: bilayer silica with nanoscale holes. Physical Chemistry Chemical Physics, 0, , .	2.8	2
94	The Discovery of the Electric Shock. Science, 2002, 298, 2327c-2328.	12.6	1
95	Apparatus for measuring pressure-driven transport through channels at high Knudsen numbers. Review of Scientific Instruments, 2016, 87, 125104.	1.3	1
96	Pressure-Driven Gas Flow through Nano-Channels at High Knudsen Numbers. Journal of Nano Research, 2017, 50, 116-127.	0.8	1
97	Solid State Conversion: Microstructuring of Crystalline Al₂O₃ (Sapphire) by Annealing of Patterned Aluminium Films. Key Engineering Materials, 0, 875, 29-34.	0.4	0
98	Focusing Helium Atom Beams Using Single Crystal Surfaces. , 2001, , 183-194.		0
99	Problem solving in basic physics: Effective self-explanations based on four elements with support from retrieval practice. Physical Review Physics Education Research, 2022, 18, .	2.9	0