

# Bodil Holst

## List of Publications by Year in descending order

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99  
papers

1,848  
citations

304743

22  
h-index

330143

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101  
docs citations

101  
times ranked

1534  
citing authors

#	ARTICLE	IF	CITATIONS
1	An atom passing through a hole in a dielectric membrane: impact of dispersion forces on mask-based matter-wave lithography. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2022, 55, 025401.	1.5	2
2	Problem solving in basic physics: Effective self-explanations based on four elements with support from retrieval practice. <i>Physical Review Physics Education Research</i> , 2022, 18, .	2.9	0
3	Is Cross-Section Shape a Distinct Feature in Plant Fibre Identification?. <i>Archaeometry</i> , 2021, 63, 216-226.	1.3	20
4	Graphene and graphene oxide on Ir(111) are transparent to wetting but not to icing. <i>Carbon</i> , 2021, 174, 396-403.	10.3	17
5	Integrating effective learning strategies in basic physics lectures: A thematic analysis. <i>Physical Review Physics Education Research</i> , 2021, 17, .	2.9	2
6	True-to-size surface mapping with neutral helium atoms. <i>Physical Review A</i> , 2021, 103, .	2.5	5
7	Large area microwave plasma CVD of diamond using composite right/left-handed materials. <i>Diamond and Related Materials</i> , 2021, 116, 108394.	3.9	16
8	The Covid-19 shutdown: when studying turns digital, students want more structure. <i>Physics Education</i> , 2021, 56, 055004.	0.5	6
9	Low-energy electron ionization mass spectrometer for efficient detection of low mass species. <i>Review of Scientific Instruments</i> , 2021, 92, 073305.	1.3	8
10	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. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 7653-7672.	2.8	25
11	Temperature-Dependent Bending Rigidity of AB -Stacked Bilayer Graphene. <i>Physical Review Letters</i> , 2021, 127, 266102.	7.8	3
12	First experimental evidence of hop fibres in historical textiles. <i>Archaeological and Anthropological Sciences</i> , 2020, 12, 1.	1.8	9
13	9-Acridinmethanamine and Acridine-9-Carboxaldehyde as Potential Fluorescence Lifetime pH Indicators. <i>Journal of Fluorescence</i> , 2020, 30, 901-906.	2.5	2
14	Label-free impedance flow cytometry for nanotoxicity screening. <i>Scientific Reports</i> , 2020, 10, 142.	3.3	25
15	Retrieval practice of a hierarchical principle structure in university introductory physics: Making stronger students. <i>Physical Review Physics Education Research</i> , 2020, 16, .	2.9	5
16	AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space. <i>EPJ Quantum Technology</i> , 2020, 7, .	6.3	190
17	A Broad-Range Fluorescence Lifetime pH Sensing Material Based on a Single Organic Fluorophore. <i>Journal of Fluorescence</i> , 2019, 29, 1125-1131.	2.5	6
18	Nanometer-Resolution Mask Lithography with Matter Waves: Near-Field Binary Holography. <i>Physical Review Applied</i> , 2019, 11, .	3.8	7

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19	Is It Hop? Identifying Hop Fibres in a European Historical Context. <i>Archaeometry</i> , 2019, 61, 494-505.	1.3	13
20	The use of surfactant-filled mesoporous silica as an immobilising medium for a fluorescence lifetime pH indicator, providing long-term calibration stability. <i>RSC Advances</i> , 2019, 9, 37241-37244.	3.6	4
21	Fluorinated graphene provides long lasting ice inhibition in high humidity. <i>Carbon</i> , 2019, 141, 451-456.	10.3	42
22	Exploring proximity effects and large depth of field in helium ion beam lithography: large-area dense patterns and tilted surface exposure. <i>Nanotechnology</i> , 2018, 29, 275301.	2.6	12
23	Work Function-Driven Hot Electron Extraction in a Bimetallic Plasmonic MIM Device. <i>ACS Photonics</i> , 2018, 5, 1202-1207.	6.6	9
24	Center-line intensity of a supersonic helium beam. <i>Physical Review A</i> , 2018, 98, .	2.5	8
25	Velocity distributions in microskimmer supersonic expansion helium beams: High precision measurements and modeling. <i>Review of Scientific Instruments</i> , 2018, 89, 113301.	1.3	6
26	Pillars or Pancakes? Self-Cleaning Surfaces without Coating. <i>Nano Letters</i> , 2018, 18, 7509-7514.	9.1	14
27	Fast resolution change in neutral helium atom microscopy. <i>Review of Scientific Instruments</i> , 2018, 89, 053702.	1.3	5
28	Bending Rigidity of 2D Silica. <i>Physical Review Letters</i> , 2018, 120, 226101.	7.8	17
29	Identifying plant fibre textiles from Norwegian Merovingian Period and Viking Age graves: The Late Iron Age Collection of the University Museum of Bergen. <i>Journal of Archaeological Science: Reports</i> , 2017, 13, 281-285.	0.5	15
30	Atom sieve for nanometer resolution neutral helium microscopy. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2017, 35, .	1.2	3
31	Neutral-helium-atom diffraction from a micron-scale periodic structure: Photonic-crystal-membrane characterization. <i>Physical Review A</i> , 2017, 95, .	2.5	3
32	Optimal Design of Grid-Based Binary Holograms for Matter-Wave Lithography. <i>Physical Review Applied</i> , 2017, 8, .	3.8	5
33	Theoretical model of the helium zone plate microscope. <i>Physical Review A</i> , 2017, 95, .	2.5	13
34	Zero-order filter for diffractive focusing of de Broglie matter waves. <i>Physical Review A</i> , 2017, 95, .	2.5	12
35	A theoretical investigation of the optical properties of metal nanoparticles in water for photo thermal conversion enhancement. <i>Energy Conversion and Management</i> , 2017, 149, 536-542.	9.2	21
36	Light absorption and scattering of 40-170 nm gold nanoparticles on glass substrates. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2017, 35, 06G403.	1.2	4

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37	Flexible thin metal crystals as focusing mirrors for neutral atomic beams. <i>Physical Review B</i> , 2017, 95, .	3.2	12
38	Atomic resolution imaging of beryl: an investigation of the nano-channel occupation. <i>Journal of Microscopy</i> , 2017, 265, 245-250.	1.8	9
39	Pressure-Driven Gas Flow through Nano-Channels at High Knudsen Numbers. <i>Journal of Nano Research</i> , 2017, 50, 116-127.	0.8	1
40	A modified time-of-flight method for precise determination of high speed ratios in molecular beams. <i>Review of Scientific Instruments</i> , 2016, 87, 023102.	1.3	4
41	Theoretical model of the helium pinhole microscope. <i>Physical Review A</i> , 2016, 94, .	2.5	21
42	Apparatus for measuring pressure-driven transport through channels at high Knudsen numbers. <i>Review of Scientific Instruments</i> , 2016, 87, 125104.	1.3	1
43	Temperature induced color change in gold nanoparticle arrays: Investigating the annealing effect on the localized surface plasmon resonance. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, .	1.2	2
44	A Giant Reconstruction of $\hat{\Gamma}$ -quartz (0001) Interpreted as Three Domains of Nano Dauphine Twins. <i>Scientific Reports</i> , 2015, 5, 14545.	3.3	11
45	Focusing of a neutral helium beam with a photon-sieve structure. <i>Physical Review A</i> , 2015, 91, .	2.5	18
46	Underwater Superoleophobic Sapphire (0001) Surfaces. <i>Journal of Physical Chemistry C</i> , 2015, 119, 15333-15338.	3.1	9
47	Flax look-alikes: Pitfalls of ancient plant fibre identification. <i>Archaeometry</i> , 2014, 56, 951-960.	1.3	36
48	Two Dimensional Imaging of the Virtual Source of a Supersonic Beam: Helium at 125 K. <i>Journal of Physical Chemistry A</i> , 2014, 118, 4-12.	2.5	16
49	Probing Surfaces with Thermal He Atoms: Scattering and Microscopy with a Soft Touch. <i>Springer Series in Surface Sciences</i> , 2013, , 333-365.	0.3	11
50	Finite-size limitations on Quality Factor of guided resonance modes in 2D Photonic Crystals. <i>Optics Express</i> , 2013, 21, 23640.	3.4	26
51	The Beynon Gabor zone plate: a new tool for de Broglie matter waves and hard X-rays? An off axis and focus intensity investigation. <i>Optics Express</i> , 2013, 21, 28483.	3.4	17
52	Optimization of an electron beam lithography instrument for fast, large area writing at 10 keV acceleration voltage. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, 043202.	1.2	20
53	Measuring the localized surface plasmon resonance effect on large arrays (5 $\mu$ m $\bar{\text{A}}$ – 5 $\mu$ m) of gold and aluminum nanoparticles on borosilicate glass substrates, fabricated by electron beam lithography. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, 06F410.	1.2	4
54	A free jet (supersonic), molecular beam source with automatized, 50 nm precision nozzle-skimmer positioning. <i>Review of Scientific Instruments</i> , 2013, 84, 093303.	1.3	16

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55	Determining the fibrillar orientation of bast fibres with polarized light microscopy: the modified Herzog test (red plate test) explained. <i>Journal of Microscopy</i> , 2013, 252, 159-168.	1.8	47
56	Nanostructuring of free-standing, dielectric membranes using electron-beam lithography. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013, 31, 06F402.	1.2	6
57	Viking and Early Middle Ages Northern Scandinavian Textiles Proven to be made with Hemp. <i>Scientific Reports</i> , 2013, 3, 2686.	3.3	34
58	Lab-on-a-chip device for fabrication of therapeutic microbubbles on demand. <i>Biomedizinische Technik</i> , 2013, 58 Suppl 1, .	0.8	2
59	Nettle as a distinct Bronze Age textile plant. <i>Scientific Reports</i> , 2012, 2, 664.	3.3	39
60	Focusing of a neutral helium beam below one micron. <i>New Journal of Physics</i> , 2012, 14, 073014.	2.9	36
61	Brightness and virtual source size of a supersonic deuterium beam. <i>Physical Review A</i> , 2012, 86, .	2.5	10
62	Particleâ€wave discrimination in Poisson spot experiments. <i>New Journal of Physics</i> , 2011, 13, 065016.	2.9	25
63	Free-standing silicon-nitride zoneplates for neutral-helium microscopy. <i>Microelectronic Engineering</i> , 2010, 87, 1011-1014.	2.4	32
64	A procedure for identifying textile bast fibres using microscopy: Flax, nettle/ramie, hemp and jute. <i>Ultramicroscopy</i> , 2010, 110, 1192-1197.	1.9	129
65	Comment on â€œ30,000-Year-Old Wild Flax Fibersâ€ Science, 2010, 328, 1634-1634.	12.6	46
66	An ellipsoidal mirror for focusing neutral atomic and molecular beams. <i>New Journal of Physics</i> , 2010, 12, 033018.	2.9	29
67	Field ionization of helium in a supersonic beam: Kinetic energy of neutral atoms and probability of their field ionization. <i>Ultramicroscopy</i> , 2009, 109, 413-417.	1.9	9
68	Poissonâ€™s spot with molecules. <i>Physical Review A</i> , 2009, 79, .	2.5	40
69	An optical profilometer for characterizing complex surfaces under high vacuum conditions. <i>Precision Engineering</i> , 2008, 32, 182-185.	3.4	12
70	Field ionization of free helium atoms: Correlation between the kinetic energy of ionized atoms and probability of their field ionization. <i>Applied Surface Science</i> , 2008, 254, 4365-4369.	6.1	9
71	Surface Debye temperature of Î±-quartz (0001). <i>Surface Science</i> , 2008, 602, 1080-1083.	1.9	7
72	Imaging with neutral atomsâ€a new matterâ€wave microscope. <i>Journal of Microscopy</i> , 2008, 229, 1-5.	1.8	84

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73	Low-energy surface phonons on $\hat{\Gamma}$ -quartz (0001). <i>Physical Review B</i> , 2008, 78, .	3.2	8
74	Comparison of a new neuromuscular transmission monitor compressomyograph with mechanomyograph. <i>British Journal of Anaesthesia</i> , 2008, 100, 344-350.	3.4	9
75	Vibrational excitations of glass observed using helium atom scattering. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 224003.	1.8	7
76	Neutral atom and molecule focusing using a Fresnel zone plate. <i>Journal of Vacuum Science &amp; Technology B</i> , 2008, 26, 2374-2379.	1.3	22
77	Anomalous Phonon Behavior: Blueshift of the Surface Boson Peak in Silica Glass with Increasing Temperature. <i>Physical Review Letters</i> , 2008, 100, 135504.	7.8	20
78	Surface dynamics measurements of silica glass. <i>Physical Review B</i> , 2008, 78, .	3.2	13
79	Observation of the Boson Peak at the Surface of Vitreous Silica. <i>Physical Review Letters</i> , 2007, 99, 035503.	7.8	24
80	Direct Images of the Virtual Source in a Supersonic Expansion. <i>Journal of Physical Chemistry A</i> , 2007, 111, 12620-12628.	2.5	34
81	The structure of the $\hat{\Gamma}$ -quartz (0001) surface investigated using helium atom scattering and atomic force microscopy. <i>Surface Science</i> , 2007, 601, 4407-4411.	1.9	42
82	Field ionization detection of supersonic molecular beams. <i>Review of Scientific Instruments</i> , 2004, 75, 405-414.	1.3	19
83	Focusing Elements and Design Considerations for a Scanning Helium Microscope (SHeM). <i>Surface Review and Letters</i> , 2003, 10, 249-255.	1.1	31
84	Phase-stepping optical profilometry of atom mirrors. <i>Journal Physics D: Applied Physics</i> , 2003, 36, 1842-1849.	2.8	8
85	Simple design for the transportation of ex situ prepared hydrogen passivated silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002, 20, 285-287.	2.1	4
86	The Discovery of the Electric Shock. <i>Science</i> , 2002, 298, 2327c-2328.	12.6	1
87	Representations of electricity: the development of a visual language for electrical phenomena. <i>Interdisciplinary Science Reviews</i> , 2002, 27, 257-270.	1.4	2
88	Focusing Helium Atom Beams Using Single Crystal Surfaces. , 2001, , 183-194.		0
89	Single crystal optic elements for helium atom microscopy. <i>Review of Scientific Instruments</i> , 2000, 71, 2625-2634.	1.3	14
90	Mechanical properties of ultra-thin single crystals for atom-mirror applications: Au(001), Si(001). <i>Journal Physics D: Applied Physics</i> , 1999, 32, 2666-2673.	2.8	6

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91	Spatial mapping in the electron-impact ion-source of a residual gas analyser. <i>Vacuum</i> , 1999, 53, 207-210.	3.5	8
92	Helium reflectivity of the Si(111)-(1 $\times$ 1) H surface for use in atom optical elements. <i>Chemical Physics Letters</i> , 1999, 303, 107-110.	2.6	11
93	Optical properties of mirrors for focusing of non-normal incidence atom beams. <i>Review of Scientific Instruments</i> , 1999, 70, 2960-2967.	1.3	16
94	Observation of an adlayer-driven substrate reconstruction in Cu-Pt(111). <i>Physical Review B</i> , 1998, 58, R10195-R10198.	3.2	24
95	The growth of ultra thin Cu-films on Pt(111), probed by helium atom scattering and scanning tunnelling microscopy. <i>Surface Science</i> , 1997, 377-379, 891-894.	1.9	33
96	An atom-focusing mirror. <i>Nature</i> , 1997, 390, 244-244.	27.8	89
97	HOMOEPITAXIAL GROWTH ON Cu(111) PROBED BY HELIUM ATOM SCATTERING. <i>Surface Review and Letters</i> , 1994, 01, 509-512.	1.1	16
98	Solid State Conversion: Microstructuring of Crystalline Al <sub>2</sub> O <sub>3</sub> (Sapphire) by Annealing of Patterned Aluminium Films. <i>Key Engineering Materials</i> , 0, 875, 29-34.	0.4	0
99	Variation of bending rigidity with material density: bilayer silica with nanoscale holes. <i>Physical Chemistry Chemical Physics</i> , 0, , .	2.8	2