Generation of electron beams carrying orbital angular r

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Citation Report

#	Article	IF	CITATIONS
4	Production and application of electron vortex beams. Nature, 2010, 467, 301-304.	13.7	713
5	A new spin on electron beams. Nature Nanotechnology, 2010, 5, 764-765.	15.6	7
6	Detecting methylation with force. Nature Nanotechnology, 2010, 5, 765-766.	15.6	3
8	Optical orbital angular momentum from the curl of polarization. Physical Review Letters, 2010, 105, 253602.	2.9	219
9	Atomic scale electron vortices for nanoresearch. Applied Physics Letters, 2011, 99, .	1.5	97
10	Born's rule and the interference of photons with orbital angular momentum by a triangular slit. Europhysics Letters, 2011, 96, 64006.	0.7	35
11	Electron Vortex Beams with High Quanta of Orbital Angular Momentum. Science, 2011, 331, 192-195.	6.0	492
12	A New Twist for Electron Beams. Science, 2011, 331, 155-156.	6.0	15
13	Bessel-Gaussian electron beams of cylindrically symmetric spin polarization. Europhysics Letters, 2011, 95, 44001.	0.7	4
14	Scattering of twisted particles: Extension to wave packets and orbital helicity. Physical Review A, 2011, 84, .	1.0	58
15	Angular momentum flux of nonparaxial acoustic vortex beams and torques on axisymmetric objects. Physical Review E, 2011, 84, 065601.	0.8	159
16	Orbital angular momentum: origins, behavior and applications. Advances in Optics and Photonics, 2011, 3, 161.	12.1	2,457
17	Theory of free electron vortices. Ultramicroscopy, 2011, 111, 1461-1468.	0.8	64
18	Making an optical vortex and its copies using a single spatial light modulator. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3634-3640.	0.9	19
19	Relativistic Electron Vortex Beams: Angular Momentum and Spin-Orbit Interaction. Physical Review Letters, 2011, 107, 174802.	2.9	169
20	Colliding particles carrying nonzero orbital angular momentum. Physical Review D, 2011, 83, .	1.6	76
21	The sonic screwdriver: a model system for study of wave angular momentum. , 2011, , .		1
22	Vortex beams for atomic resolution dichroism. Microscopy (Oxford, England), 2011, 60, 295-300.	0.7	13

ATION REDO

ARTICLE IF CITATIONS # Experimental proposal for measuring the Gouy phase of matter waves. New Journal of Physics, 2011, 13, 23 1.2 27 125005. Spin-orbit interactions of light in isotropic media., 0, , 174-245. 24 25 Vacuum Faraday effect for electrons. New Journal of Physics, 2012, 14, 103040. 1.2 50 Vortex electron energy loss spectroscopy for near-field mapping of magnetic plasmons. Optics Express, 2012, 20, 15024. Optical generation of crystalline, quasicrystalline, and arbitrary arrays of torons in confined cholesteric liquid crystals for patterning of optical vortices in laser beams. Physical Review E, 2012, 27 0.8 77 86,021703. Interaction of electron vortices and optical vortices with matter and processes of orbital angular 1.0 momentum exchange. Physical Review A, 2012, 86, . Goos-HÃ**¤**chen and Imbert-Fedorov shifts of vortex beams at air–left-handed-material interfaces. 29 1.0 38 Physical Review A, 2012, 85, . Creation of two vortex-entangled beams in a vortex-beam collision with a plane wave. Physical Review 1.0 A, 2012, 85, . 30-kV spin-polarized transmission electron microscope with GaAs–GaAsP strained superlattice 31 1.5 52 photocathode. Applied Physics Letters, 2012, 101, . Novel Vortex Generator and Mode Converter for Electron Beams. Physical Review Letters, 2012, 109, 084801. Electron Vortex Beams in a Magnetic Field: A New Twist on Landau Levels and Aharonov-Bohm States. 33 2.8 89 Physical Review X, 2012, 2, . Production of electron vortex beams carrying large orbital angular momentum using spiral zone plates. Journal of Electron Microscopy, 2012, 61, 171-7. Electron Beams with a Twist. Journal of Physics: Conference Series, 2012, 371, 012005. 35 0.3 4 Developments in Imaging and Analysis Techniques for Micro- and Nanosize Particles and Surface Features. , 2012, , 215-306. Quantized Orbital Angular Momentum Transfer and Magnetic Dichroism in the Interaction of 37 2.9 100 Electron Vortices with Matter. Physical Review Letters, 2012, 108, 074802. Electron with orbital angular momentum in a strong laser wave. Physical Review A, 2012, 86, . 44 39 Relativistic Hall Effect. Physical Review Letters, 2012, 108, 120403. 2.9 62 Electromagnetic Vortex Fields, Spin, and Spin-Orbit Interactions in Electron Vortices. Physical Review Letters, 2012, 109, 254801.

#	Article	IF	CITATIONS
41	Laser-directed hierarchical assembly of liquid crystal defects and control of optical phase singularities. Scientific Reports, 2012, 2, 414.	1.6	49
42	Spatiotemporal vortex beams and angular momentum. Physical Review A, 2012, 86, .	1.0	146
43	On-Column 2 <i>p</i> Bound State with Topological Charge ±1 Excited by an Atomic-Size Vortex Beam in an Aberration-Corrected Scanning Transmission Electron Microscope. Microscopy and Microanalysis, 2012, 18, 711-719.	0.2	24
44	Spin-to-Orbital Angular Momentum Conversion and Spin-Polarization Filtering in Electron Beams. Physical Review Letters, 2012, 108, 044801.	2.9	97
45	Measuring the phase of the scattering amplitude with vortex beams. Physical Review D, 2012, 85, .	1.6	37
46	Measurement of the orbital angular momentum at photon level via the spatial probability distribution. Journal of Modern Optics, 2012, 59, 1194-1198.	0.6	5
47	Elastic propagation of fast electron vortices through crystals. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, 443-447.	0.3	27
48	Terabit free-space data transmission employing orbital angular momentum multiplexing. Nature Photonics, 2012, 6, 488-496.	15.6	3,471
49	Extending opportunities. Nature Photonics, 2012, 6, 407-407.	15.6	44
50	High-Energy Physics with Particles Carrying Non-Zero Orbital Angular Momentum. Few-Body Systems, 2012, 53, 167-172.	0.7	4
51	A new way of producing electron vortex probes for STEM. Ultramicroscopy, 2012, 113, 83-87.	0.8	73
52	Sub-nanometer free electrons with topological charge. Ultramicroscopy, 2012, 115, 21-25.	0.8	26
53	Angles in fuzzy disc and angular noncommutative solitons. Journal of High Energy Physics, 2013, 2013, 1.	1.6	2
54	Electron Tweezers as a Tool forÂHigh-Precision Manipulation of Nanoobjects. Advances in Imaging and Electron Physics, 2013, , 203-262.	0.1	10
55	Exploiting Lens Aberrations to Create Electron-Vortex Beams. Physical Review Letters, 2013, 111, 064801.	2.9	72
56	Bessel beams of two-level atoms driven by a linearly polarized laser field. European Physical Journal D, 2013, 67, 1.	0.6	18
57	Measuring the Orbital Angular Momentum of Electron Vortex Beams Using a Forked Grating. Physical Review Letters, 2013, 111, 074801.	2.9	72
58	Boundaries for Efficient Use of Electron Vortex Beams to Measure Magnetic Properties. Physical Review Letters, 2013, 111, 105504.	2.9	72

#	Article	IF	CITATIONS
59	Do Waves Carrying Orbital Angular Momentum Possess Azimuthal Linear Momentum?. Physical Review Letters, 2013, 111, 103602.	2.9	17
60	Electronic analogy of the Goos–HÃ ¤ chen effect: a review. Journal of Optics (United Kingdom), 2013, 15, 033001.	1.0	64
61	Transverse relativistic effects in paraxial wave interference. Journal of Optics (United Kingdom), 2013, 15, 044003.	1.0	4
62	Off-axis excitation of hydrogenlike atoms by twisted photons. Physical Review A, 2013, 88, .	1.0	71
63	Bragg x-ray ptychography of a silicon crystal: Visualization of the dislocation strain field and the production of a vortex beam. Physical Review B, 2013, 87, .	1.1	84
64	Generation of electron Airy beams. Nature, 2013, 494, 331-335.	13.7	368
65	How to Manipulate Nanoparticles with an Electron Beam?. Advanced Materials, 2013, 25, 1114-1117.	11.1	80
66	Observation of the Larmor and Gouy Rotations with Electron Vortex Beams. Physical Review Letters, 2013, 110, 093601.	2.9	96
67	Topological analysis of paraxially scattered electron vortex beams. Physical Review A, 2013, 87, .	1.0	33
68	Optical generation, templating, and polymerization of three-dimensional arrays of liquid-crystal defects decorated by plasmonic nanoparticles. Physical Review E, 2013, 87, .	0.8	58
69	Detecting Transition Radiation from a Magnetic Moment. Physical Review Letters, 2013, 110, 264801.	2.9	49
70	Electron Vortex Production and Control Using Aberration Induced Diffraction Catastrophes. Physical Review Letters, 2013, 110, 033901.	2.9	43
71	Quantum simulation of a spin polarization device in an electron microscope. New Journal of Physics, 2013, 15, 093026.	1.2	25
72	Young's Interference Experiment with Electron Beams Carrying Orbital Angular Momentum. Journal of the Physical Society of Japan, 2013, 82, 033002.	0.7	12
73	Generation and propagation of an anomalous vortex beam. Optics Letters, 2013, 38, 5418.	1.7	91
74	Generation of high-order optical vortices with asymmetrical pinhole plates under plane wave illumination. Optics Express, 2013, 21, 15755.	1.7	50
75	Generation of arbitrary complex quasi-non-diffracting optical patterns. Optics Express, 2013, 21, 22221.	1.7	20
76	Mapping of phase singularities with spiral phase contrast microscopy. Optics Express, 2013, 21, 16282.	1.7	17

#	Article	IF	CITATIONS
77	Propagation Dynamics of Electron Vortex Pairs. Journal of the Physical Society of Japan, 2013, 82, 073402.	0.7	14
78	Dynamic nano-pulling effect of the boron-functionalized graphene monovacancy for molecule dissociation. Journal Physics D: Applied Physics, 2013, 46, 385302.	1.3	10
79	Spin effects in electron vortex states. Europhysics Letters, 2013, 102, 40010.	0.7	15
80	Mechanical properties of electron vortices. Physical Review A, 2013, 88, .	1.0	15
81	Diffraction catastrophes threaded by quantized vortex skeletons caused by atom-optical aberrations induced in trapped Bose-Einstein condensates. Physical Review A, 2013, 88, .	1.0	9
82	Polarization radiation of vortex electrons with large orbital angular momentum. Physical Review A, 2013, 88, .	1.0	35
83	Chiral-specific electron-vortex-beam spectroscopy. Physical Review A, 2013, 88, .	1.0	30
84	Coherence of a spin-polarized electron beam emitted from a semiconductor photocathode in a transmission electron microscope. Applied Physics Letters, 2014, 105, .	1.5	38
85	Transition radiation of electrons with a nonzero orbital angular momentum. JETP Letters, 2014, 100, 421-425.	0.4	11
86	Toward Single Mode, Atomic Size Electron Vortex Beams. Microscopy and Microanalysis, 2014, 20, 832-836.	0.2	16
87	Radiative capture of twisted electrons by bare ions. New Journal of Physics, 2014, 16, 053024.	1.2	35
88	A study on the near field OAM using the rigorous numerical methods. , 2014, , .		0
89	On astigmatic exponentially localized solutions for the wave and the Klein–Gordon–Fock equations. Journal of Mathematical Physics, 2014, 55, 112902.	0.5	2
90	Efficient diffractive phase optics for electrons. New Journal of Physics, 2014, 16, 093039.	1.2	67
91	Rutherford scattering of electron vortices. Physical Review A, 2014, 89, .	1.0	37
92	Atom vortex beams. Physical Review A, 2014, 89, .	1.0	48
93	Measuring the orbital angular momentum of electron beams. Physical Review A, 2014, 89, .	1.0	42
94	Radial quantum number of Laguerre-Gauss modes. Physical Review A, 2014, 89, .	1.0	84

#	Article	IF	Citations
95	Is the Angular Momentum of an Electron Conserved in a Uniform Magnetic Field?. Physical Review Letters, 2014, 113, 240404.	2.9	44
96	Scattering of electron vortex beams on a magnetic crystal: Towards atomic-resolution magnetic measurements. Physical Review B, 2014, 89, .	1.1	51
97	Non-Linear Shape Preserving Electron-Beams. , 2014, , .		0
98	Future directions in high-resolution electron microscopy: Novel optical components and techniques. Comptes Rendus Physique, 2014, 15, 110-118.	0.3	1
99	Creating arrays of electron vortices. Ultramicroscopy, 2014, 136, 165-170.	0.8	9
100	Sculpturing the electron wave function using nanoscale phase masks. Ultramicroscopy, 2014, 144, 26-31.	0.8	88
101	Highly efficient electron vortex beams generated by nanofabricated phase holograms. Applied Physics Letters, 2014, 104, .	1.5	111
102	Interaction of Relativistic Electron-Vortex Beams with Few-Cycle Laser Pulses. Physical Review Letters, 2014, 112, 134801.	2.9	51
103	A perturbation theory study of electron vortices in electromagnetic fields: The case of infinitely long line charge and magnetic dipole. Micron, 2014, 63, 9-14.	1.1	2
104	Unified dynamics of electrons and photons viaZitterbewegungand spin-orbit interaction. Physical Review A, 2014, 89, .	1.0	9
105	Generating Switchable and Reconfigurable Optical Vortices via Photopatterning of Liquid Crystals. Advanced Materials, 2014, 26, 1590-1595.	11.1	143
106	Bright electron twisters. Nature, 2014, 509, 37-38.	13.7	4
107	The geometric phase and the geometrodynamics of relativistic electron vortex beams. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130525.	1.0	9
108	Generation of a spin-polarized electron beam by multipole magnetic fields. Ultramicroscopy, 2014, 138, 22-27.	0.8	13
109	Magnetic monopole field exposed by electrons. Nature Physics, 2014, 10, 26-29.	6.5	141
110	ORBITAL ANGULAR MOMENTUM OF GAUGE FIELDS: EXCITATION OF AN ATOM BY TWISTED PHOTONS. International Journal of Modern Physics Conference Series, 2014, 25, 1460048.	0.7	2
111	Generation of Nondiffracting Electron Bessel Beams. Physical Review X, 2014, 4, .	2.8	71
112	Cherenkov Radiation From Electron Vortex Beams. , 2014, , .		0

#	Article	IF	CITATIONS
113	Dichroism in the Interaction between Vortex Electron Beams, Plasmons, and Molecules. Physical Review Letters, 2014, 113, 066102.	2.9	79
114	Orbit-orbit interaction and photonic orbital Hall effect in reflection of a light beam. Chinese Physics B, 2014, 23, 064215.	0.7	22
115	Achieving Atomic Resolution Magnetic Dichroism by Controlling the Phase Symmetry of an Electron Probe. Physical Review Letters, 2014, 113, 145501.	2.9	54
116	Structured x-ray beams from twisted electrons by inverse Compton scattering of laser light. Physical Review A, 2014, 90, .	1.0	30
117	Imaging the dynamics of free-electron Landau states. Nature Communications, 2014, 5, 4586.	5.8	80
118	Creation of matter wave Bessel beams and observation of quantized circulation in a Bose–Einstein condensate. New Journal of Physics, 2014, 16, 013046.	1.2	38
119	Nonlinear magneto-optical response to light carrying orbital angular momentum. Journal of Optics (United Kingdom), 2014, 16, 125201.	1.0	7
120	Two-dimensional skyrmions and other solitonic structures in confinement-frustrated chiral nematics. Physical Review E, 2014, 90, 012505.	0.8	109
121	Shaping electron beams for the generation of innovative measurements in the (S)TEM. Comptes Rendus Physique, 2014, 15, 190-199.	0.3	24
122	Vortex beam production and contrast enhancement from a magnetic spiral phase plate. Ultramicroscopy, 2014, 136, 127-143.	0.8	51
123	Is magnetic chiral dichroism feasible with electron vortices?. Ultramicroscopy, 2014, 136, 81-85.	0.8	74
124	Transverse Relativistic Effects in Paraxial Wave Interference. , 2014, , 237-246.		0
125	EMCD – Magnetic Chiral Dichroism in the Electron Microscope. Microscopy and Microanalysis, 2014, 20, 2136-2137.	0.2	0
126	Mapping Magnetic Properties of Materials At Atomic Spatial Resolution. Microscopy and Microanalysis, 2015, 21, 499-500.	0.2	2
127	Disentangling multipole contributions to collective excitations in fullerenes. Physical Review A, 2015, 92, .	1.0	10
128	Scattering of wave packets on atoms in the Born approximation. Physical Review A, 2015, 92, .	1.0	33
129	Berry curvature and orbital angular momentum of electrons in angle-resolved photoemission spectroscopy. Physical Review B, 2015, 91, .	1.1	6
130	Insensitivity of spin dynamics to the orbital angular momentum transferred from twisted light to extended semiconductors. Physical Review B, 2015, 92, .	1.1	7

		CITATION REPORT		
#	Article		IF	CITATIONS
131	Relativistic Electron Vortex Beams in a Laser Field. Physical Review Letters, 2015, 115, 2	194801.	2.9	14
132	Scattering of twisted relativistic electrons by atoms. Physical Review A, 2015, 92, .		1.0	70
133	Orbital angular momentum in electron diffraction and its use to determine chiral crysta Physical Review B, 2015, 92, .	Il symmetries.	1.1	19
134	Parallel axis theorem for free-space electron wavefunctions. New Journal of Physics, 20	15, 17, 093015.	1.2	24
136	The Surprising Dynamics of Electron Vortex Beams. Microscopy and Microanalysis, 201	5, 21, 19-20.	0.2	1
137	Synthesization of vortex beams by combining fork-shaped gratings for transmission ele microscopy. Microscopy and Microanalysis, 2015, 21, 669-670.	ctron	0.2	3
138	Propagation properties of Electron Vortex Beams. Microscopy and Microanalysis, 2015	, 21, 671-672.	0.2	1
139	Improving Electron Microscopy by Shaping the Electron Beam Wavefunction. , 2015, , .			0
140	X-Ray Imaging of Magnetic Structures. IEEE Transactions on Magnetics, 2015, 51, 1-31		1.2	37
141	Inelastic electron-vortex-beam scattering. Physical Review A, 2015, 91, .		1.0	37
142	Nonlinear scattering in photonic crystals having dislocations with fractional topologica and multiple dislocations. Physical Review A, 2015, 91, .	l character	1.0	1
143	Rotating quantum Gaussian packets. Journal of Physics A: Mathematical and Theoretica 435303.	ıl, 2015, 48,	0.7	6
144	A near infrared holographic glucose sensor. Biosensors and Bioelectronics, 2015, 68, 3	71-381.	5.3	31
145	Dynamic scattering of electron vortex beams – A Bloch wave analysis. Ultramicrosco 74-85.	ру, 2015, 149,	0.8	10
146	Gaussian and Airy wave packets of massive particles with orbital angular momentum. P A, 2015, 91, .	hysical Review	1.0	15
147	Holographic Generation of Highly Twisted Electron Beams. Physical Review Letters, 201	.5, 114, 034801.	2.9	78
148	Unveiling the Orbital Angular Momentum and Acceleration of Electron Beams. Physical Letters, 2015, 114, 096102.	Review	2.9	41
149	Creating electron vortex beams with light. Optics Express, 2015, 23, 5236.		1.7	26

	Сітат	CITATION REPORT	
#	Article	IF	Citations
150	Electron vortex beams in a magnetic field and spin filter. Physical Review A, 2015, 91, .	1.0	13
152	Electron vortex beams subject to static magnetic fields. Physical Review A, 2015, 91, .	1.0	17
153	Curved singular beams for three-dimensional particle manipulation. Scientific Reports, 2015, 5, 12086.	1.6	107
154	Structured quantum waves. Nature Physics, 2015, 11, 629-634.	6.5	117
155	Generation of Electromagnetic Waves with Arbitrary Orbital Angular Momentum Modes. Scientific Reports, 2014, 4, 4814.	1.6	212
156	Kinematics of gold nanoparticles manipulation in situ transmission electron microscopy. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	3
157	Neutrons with a twist. Nature, 2015, 525, 462-463.	13.7	4
158	Controlling neutron orbital angular momentum. Nature, 2015, 525, 504-506.	13.7	153
159	Using electron vortex beams to determine chirality of crystals in transmission electron microscopy. Physical Review B, 2015, 91, .	1.1	62
160	C-shaped electron beams: design, experimental production and application. Proceedings of SPIE, 2015, ,	. 0.8	2
161	Peculiar rotation of electron vortex beams. Ultramicroscopy, 2015, 158, 17-25.	0.8	23
162	Electron vortex beams prepared by a spiral aperture with the goal to measure EMCD on ferromagnetic films via STEM. Ultramicroscopy, 2015, 150, 16-22.	0.8	26
163	Laser control of electron matter waves. Laser and Photonics Reviews, 2016, 10, 214-229.	4.4	22
164	On small beams with large topological charge. New Journal of Physics, 2016, 18, 033012.	1.2	21
165	Spin-Hall nano-oscillator with oblique magnetization and Dzyaloshinskii-Moriya interaction as generator of skyrmions and nonreciprocal spin-waves. Scientific Reports, 2016, 6, 36020.	1.6	38
166	Probing phase of a scattering amplitude beyond the plane-wave approximation. Europhysics Letters, 2016, 116, 31001.	0.7	12
167	Generation of gamma-ray beam with orbital angular momentum in the QED regime. Physics of Plasmas, 2016, 23, .	0.7	28
168	Particle manipulation with acoustic vortex beam induced by a brass plate with spiral shape structure. Applied Physics Letters, 2016, 109, .	1.5	94

#	Article	IF	CITATIONS
169	Wavefront shaping through emulated curved space in waveguide settings. Nature Communications, 2016, 7, 10747.	5.8	52
170	Singularities and internal rotational dynamics of electron beams. Physical Review A, 2016, 94, .	1.0	6
171	Fork gratings based on ferroelectric liquid crystals. Optics Express, 2016, 24, 5822.	1.7	21
172	Extension of Friedel's law to vortex-beam diffraction. Physical Review A, 2016, 94, .	1.0	14
173	Nondestructive Measurement of Orbital Angular Momentum for an Electron Beam. Physical Review Letters, 2016, 117, 154801.	2.9	24
174	Double-slit experiment in momentum space. Europhysics Letters, 2016, 115, 41001.	0.7	11
175	Generation of Electron Bessel Beams with Nondiffractive Spreading by a Nanofabricated Annular Slit. Journal of the Physical Society of Japan, 2016, 85, 043501.	0.7	18
176	Twisted X-Rays: Incoming Waveforms Yielding Discrete Diffraction Patterns for Helical Structures. SIAM Journal on Applied Mathematics, 2016, 76, 1191-1218.	0.8	7
177	Lorentz-covariant quantum 4-potential and orbital angular momentum for the transverse confinement of matter waves. Physical Review A, 2016, 94, .	1.0	1
178	Local orbital angular momentum revealed by spiral-phase-plate imaging in transmission-electron microscopy. Physical Review A, 2016, 93, .	1.0	12
179	Symmetry-constrained electron vortex propagation. Physical Review A, 2016, 93, .	1.0	9
180	Aberrated electron probes for magnetic spectroscopy with atomic resolution: Theory and practical aspects. Physical Review B, 2016, 93, .	1.1	12
181	Controlling multipolar surface plasmon excitation through the azimuthal phase structure of electron vortex beams. Physical Review B, 2016, 93, .	1.1	16
182	Elastic Scattering of Electron Vortex Beams in Magnetic Matter. Physical Review Letters, 2016, 116, 127203.	2.9	44
183	Unified Approach towards the Dynamics of Optical and Electron Vortex Beams. Physical Review Letters, 2016, 116, 144801.	2.9	5
184	Quantum calculation of the Vavilov-Cherenkov radiation by twisted electrons. Physical Review A, 2016, 93, .	1.0	35
185	Precisely measuring the orbital angular momentum of beams via weak measurement. Physical Review A, 2016, 93, .	1.0	14
186	Quantum ÄŒerenkov Radiation: Spectral Cutoffs and the Role of Spin and Orbital Angular Momentum. Physical Review X, 2016, 6, .	2.8	51

#	Article	IF	Citations
187	Elastic scattering of vortex electrons provides direct access to the Coulomb phase. Physical Review D, 2016, 94, .	1.6	40
188	Vorticity in electron beams: Definition, properties, and its relationship with magnetism. Physical Review B, 2016, 94, .	1.1	3
189	Magnetic effects in the paraxial regime of elastic electron scattering. Physical Review B, 2016, 94, .	1.1	17
190	Synthesis and characterization of attosecond light vortices in the extreme ultraviolet. Nature Communications, 2016, 7, 12583.	5.8	123
191	Magnetic measurements with atomic-plane resolution. Nature Communications, 2016, 7, 12672.	5.8	43
192	Generation of multiple orbital angular momentum (OAM) Modes with a circularly polarized multimode patch antenna. , 2016, , .		9
193	Arbitrarily tunable orbital angular momentum of photons. Scientific Reports, 2016, 6, 29212.	1.6	29
194	Mechanical effects on atoms interacting with highly twisted Laguerre-Gaussian light. Physical Review A, 2016, 94, .	1.0	9
195	Electron Beam Carrying Orbital Angular Momentum. Nihon Kessho Gakkaishi, 2016, 58, 79-84.	0.0	1
197	Detecting magnetic ordering with atomic size electron probes. Advanced Structural and Chemical Imaging, 2016, 2, .	4.0	36
198	Influence of nuclear quantum effects on frozen phonon simulations of electron vortex beam HAADF-STEM images. Ultramicroscopy, 2016, 164, 62-69.	0.8	9
199	Generation and application of bessel beams in electron microscopy. Ultramicroscopy, 2016, 166, 48-60.	0.8	39
200	Bragg–von Laue diffraction generalized to twisted X-rays. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, 190-196.	0.0	9
201	Quasinormal mode theory and modelling of electron energy loss spectroscopy for plasmonic nanostructures. Journal of Optics (United Kingdom), 2016, 18, 054002.	1.0	10
202	Rotating highly mixed Gaussian packets with minimal energy. Physical Review A, 2016, 93, .	1.0	3
203	Reversible orbital angular momentum photon–phonon conversion. Optica, 2016, 3, 212.	4.8	41
204	Focused electron beam induced deposition as a tool to create electron vortices. Micron, 2016, 80, 34-38.	1.1	23
205	Efficient creation of electron vortex beams for high resolution STEM imaging. Ultramicroscopy, 2017, 178, 12-19.	0.8	37

#	Article	IF	CITATIONS
206	Origins and demonstrations of electrons with orbital angular momentum. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20150434.	1.6	39
207	Normal modes and mode transformation of pure electron vortex beams. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20150438.	1.6	14
208	Geometric phase and fractional orbital-angular-momentum states in electron vortex beams. Physical Review A, 2017, 95, .	1.0	5
209	Pulse, polarization and topology shaping of polariton fluids. , 2017, , .		Ο
210	Flat polarization-controlled cylindrical lens based on the Pancharatnam–Berry geometric phase. European Journal of Physics, 2017, 38, 034007.	0.3	13
211	Future Prospects and Possibility of TEM and STEM. , 2017, , 203-212.		0
212	Probing the symmetry of the potential of localized surface plasmon resonances with phase-shaped electron beams. Nature Communications, 2017, 8, 14999.	5.8	95
213	Revealing optical vortices with a small number of photons. Laser and Photonics Reviews, 2017, 11, 1600163.	4.4	6
215	Phase Plates for Transmission Electron Microscopy. Advances in Imaging and Electron Physics, 2017, , 61-102.	0.1	6
216	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70.	10.3	227
216 217	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70. Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536.	10.3 5.8	227 71
216 217 218	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70. Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536. Generation of electron vortex beams using line charges via the electrostatic Aharonov-Bohm effect. Ultramicroscopy, 2017, 181, 191-196.	10.3 5.8 0.8	227 71 16
216 217 218 220	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70.Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536.Generation of electron vortex beams using line charges via the electrostatic Aharonov-Bohm effect. Ultramicroscopy, 2017, 181, 191-196.3D shaping of electron beams using amplitude masks. Ultramicroscopy, 2017, 177, 30-35.	10.3 5.8 0.8 0.8	227 71 16 12
216 217 218 220 221	 Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70. Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536. Generation of electron vortex beams using line charges via the electrostatic Aharonov-Bohm effect. Ultramicroscopy, 2017, 181, 191-196. 3D shaping of electron beams using amplitude masks. Ultramicroscopy, 2017, 177, 30-35. Superoscillating electron wave functions with subdiffraction spots. Physical Review A, 2017, 95, . 	10.3 5.8 0.8 0.8 1.0	227 71 16 12 26
216 217 218 220 221 222	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70.Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536.Generation of electron vortex beams using line charges via the electrostatic Aharonov-Bohm effect. Ultramicroscopy, 2017, 181, 191-196.3D shaping of electron beams using amplitude masks. Ultramicroscopy, 2017, 177, 30-35.Superoscillating electron wave functions with subdiffraction spots. Physical Review A, 2017, 95, .Spin polarisation with electron Bessel beams. Ultramicroscopy, 2017, 176, 188-193.	 10.3 5.8 0.8 0.8 1.0 0.8 	 227 71 16 12 26 6
 216 217 218 220 221 222 222 223 	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70.Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536.Generation of electron vortex beams using line charges via the electrostatic Aharonov-Bohm effect. Ultramicroscopy, 2017, 181, 191-196.3D shaping of electron beams using amplitude masks. Ultramicroscopy, 2017, 177, 30-35.Superoscillating electron wave functions with subdiffraction spots. Physical Review A, 2017, 95, .Spin polarisation with electron Bessel beams. Ultramicroscopy, 2017, 176, 188-193.Realization of electron vortices with large orbital angular momentum using miniature holograms fabricated by electron beam lithography. Applied Physics Letters, 2017, 110,.	 10.3 5.8 0.8 1.0 0.8 1.5 	 227 71 16 12 26 6 73
 216 217 218 220 221 222 222 223 224 	Theory and applications of free-electron vortex states. Physics Reports, 2017, 690, 1-70.Measuring the orbital angular momentum spectrum of an electron beam. Nature Communications, 2017, 8, 15536.Generation of electron vortex beams using line charges via the electrostatic Aharonov-Bohm effect. Ultramicroscopy, 2017, 181, 191-196.3D shaping of electron beams using amplitude masks. Ultramicroscopy, 2017, 177, 30-35.Superoscillating electron wave functions with subdiffraction spots. Physical Review A, 2017, 95, .Spin polarisation with electron Bessel beams. Ultramicroscopy, 2017, 176, 188-193.Realization of electron vortices with large orbital angular momentum using miniature holograms fabricated by electron beam lithography. Applied Physics Letters, 2017, 110, .Relativistic Electron Wave Packets Carrying Angular Momentum. Physical Review Letters, 2017, 118, 114801.	 10.3 5.8 0.8 0.8 1.0 0.8 1.5 2.9 	 227 71 16 226 6 73 61

#	Article	IF	CITATIONS
226	Ultrafast generation of skyrmionic defects with vortex beams: Printing laser profiles on magnets. Physical Review B, 2017, 95, .	1.1	107
227	A New Twist on Relativistic Electron Vortices. Physics Magazine, 2017, 10, .	0.1	1
228	Classical understanding of electron vortex beams in a uniform magnetic field. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1335-1339.	0.9	7
229	Scattering of twisted electron wave packets by atoms in the Born approximation. Physical Review A, 2017, 95, .	1.0	30
230	EMCD with an electron vortex filter: Limitations and possibilities. Ultramicroscopy, 2017, 179, 15-23.	0.8	21
231	Ultrafast transmission electron microscopy using a laser-driven field emitter: Femtosecond resolution with a high coherence electron beam. Ultramicroscopy, 2017, 176, 63-73.	0.8	292
232	Publisher's Note. Ultramicroscopy, 2017, 174, 8.	0.8	3
233	A matter of quantum. Nature Physics, 2017, 13, 1027-1027.	6.5	6
234	Observation of nanoscale magnetic fields using twisted electron beams. Nature Communications, 2017, 8, 689.	5.8	47
235	Radiative recombination of twisted electrons with bare nuclei: Going beyond the Born approximation. Physical Review A, 2017, 95, .	1.0	25
236	Remembering Akira Tonomura. , 2017, , 582-584.		0
237	Vortex type oscillations in a multi-component plasma. Results in Physics, 2017, 7, 4065-4070.	2.0	6
238	Orbital-Angular-Momentum Mode Selection by Rotationally Symmetric Superposition of Chiral States with Application to Electron Vortex Beams. Physical Review Letters, 2017, 119, 094802.	2.9	64
239	Robust and adjustable C-shaped electron vortex beams. New Journal of Physics, 2017, 19, 063008.	1.2	7
240	Interaction of electron beams with optical nanostructures and metamaterials: from coherent photon sources towards shaping the wave function. Journal of Optics (United Kingdom), 2017, 19, 103001.	1.0	60
241	Non-diffracting multi-electron vortex beams balancing their electron–electron interactions. Nature Communications, 2017, 8, 650.	5.8	7
242	Nonuniform Currents and Spins of Relativistic Electron Vortices in a Magnetic Field. Physical Review Letters, 2017, 119, 030401.	2.9	18
243	Relativistic electron vortex beams in a constant magnetic field. Physical Review A, 2017, 95, .	1.0	14

		CITATION RE	PORT	
#	Article		IF	CITATIONS
244	Atomic Ferris wheel beams. Physical Review A, 2017, 96, .		1.0	10
245	Atom size electron vortex beams with selectable orbital angular momentum. Scientific 7, 934.	Reports, 2017,	1.6	24
246	Stern-Gerlach-like approach to electron orbital angular momentum measurement. Phys 2017, 95, .	ical Review A,	1.0	13
247	Electron vortices: Beams with orbital angular momentum. Reviews of Modern Physics,	2017, 89, .	16.4	180
248	Efficient sorting of free electron orbital angular momentum. New Journal of Physics, 20	117, 19, 023053.	1.2	35
249	Manipulating Twisted Electron Beams. Physical Review Letters, 2017, 119, 243903.		2.9	26
250	Control of the interaction strength of photonic molecules by nanometer precise 3D fab Scientific Reports, 2017, 7, 16502.	prication.	1.6	17
251	Axicon Lens for Electrons Using a Magnetic Vortex: The Efficient Generation of a Besse Review Letters, 2017, 119, 174801.	l Beam. Physical	2.9	19
252	Orbital Angular Momentum (OAM) of Rotating Modes Driven by Electrons in Electron (Masers. Scientific Reports, 2017, 7, 3372.	Cyclotron	1.6	23
253	Production of high-angular-momentum electron beams in laser-plasma interactions. Ph 2017, 95, 053205.	ysical Review E,	0.8	12
254	Electron microscopy methods for space-, energy-, and time-resolved plasmonics. Fronti 2017, 12, 1.	ers of Physics,	2.4	42
255	Roadmap on structured light. Journal of Optics (United Kingdom), 2017, 19, 013001.		1.0	888
256	Nearly nondiffracting electron lattice beams generated by polygonal slits. Journal of Ele Microscopy, 2017, 66, 295-299.	ctron	0.9	6
257	Phase retrieval of an electron vortex beam using diffraction holography. Applied Physic 111, .	s Letters, 2017,	1.5	8
258	Measurement of Vortex Beam Phase by Electron Holography. Microscopy and Microan 588-589.	alysis, 2017, 23,	0.2	4
259	Non-Diffractive Electron Bessel Beams for Scanning Electron Microscopy in Transmissio Direct Phase Masks. Microscopy and Microanalysis, 2017, 23, 592-593.	on Mode Using	0.2	1
260	Intricate Physics of Coherent Electron Beam/Oxide Materials Interaction Revealed by 4 Holography—Electron Ptychography. Microscopy and Microanalysis, 2017, 23, 1632-	D Inline 1633.	0.2	0
261	Position, spin, and orbital angular momentum of a relativistic electron. Physical Review	A, 2017, 96, .	1.0	32

	Сітаті	ION REPORT	
#	Article	IF	CITATIONS
262	Scattering of wave packets with phases. Journal of High Energy Physics, 2017, 2017, 1.	1.6	35
263	Generating the dual-mode vortex electromagnetic wave by designing and analysing of dual-band antenna array. , 2017, , .		1
264	Dynamic evolution of circular edge dislocations in free space and atmospheric turbulence. Optics Express, 2017, 25, 2895.	1.7	13
265	Orbital angular momentum 25 years on [Invited]. Optics Express, 2017, 25, 11265.	1.7	578
266	Towards a holographic approach to spherical aberration correction in scanning transmission electron microscopy. Optics Express, 2017, 25, 21851.	1.7	14
267	Orbital angular momentum mode groups multiplexing transmission over 26-km conventional multi-mode fiber. Optics Express, 2017, 25, 25637.	1.7	68
268	Quantum scattering beyond the plane-wave approximation. Journal of Physics: Conference Series, 2017, 938, 012031.	0.3	1
269	Measuring Orbital Angular Momentum (OAM) and Torque Transfer from Polarization Vortices with the Electron Microscopy Pixel Array Detector. Microscopy and Microanalysis, 2017, 23, 1634-1635.	0.2	1
270	Twisted ion waves carrying orbital angular momentum in a dense pair-ion plasma. Physics of Plasmas, 2018, 25, 012120.	0.7	0
271	Generation of Wideband Tunable Orbital Angular Momentum Vortex Waves Using Graphene Metamaterial Reflectarray. IEEE Access, 2018, 6, 5341-5347.	2.6	53
272	Intrinsic Orbital Angular Momentum States of Neutrons. Physical Review Letters, 2018, 120, 090402.	2.9	25
273	Understanding electron magnetic circular dichroism in a transition potential approach. Physical Review B, 2018, 97, .	1.1	3
274	Interactions and scattering of quantum vortices in a polariton fluid. Nature Communications, 2018, 9, 1467.	5.8	46
275	Motion of vortices in inhomogeneous Bose-Einstein condensates. Physical Review A, 2018, 97, .	1.0	36
276	Landau problem and electron vortex in pure gauge fields. Modern Physics Letters A, 2018, 33, 1850013.	0.5	3
277	â€~Twisted' electrons. Contemporary Physics, 2018, 59, 126-144.	0.8	40
279	High-efficiency dual-modes vortex beam generator with polarization-dependent transmission and reflection properties. Scientific Reports, 2018, 8, 6422.	1.6	27
280	Demonstration of a $2\hat{a}\in\tilde{A}-\hat{a}\in\tilde{C}$ programmable phase plate for electrons. Ultramicroscopy, 2018, 190, 58	8-65. 0.8	80

#	Article	IF	CITATIONS
281	Generation of microwave orbital angular momentum states using hemispherical dielectric resonator antenna. Applied Physics Letters, 2018, 112, .	1.5	60
282	A menu of electron probes for optimising information from scanning transmission electron microscopy. Ultramicroscopy, 2018, 184, 143-155.	0.8	10
283	Tuning STEM: Tailoring the Incident Probe, Scattering Dynamics and Detector Geometry for Maximum Specimen Information. Microscopy and Microanalysis, 2018, 24, 174-175.	0.2	0
284	Topological Defects and Interaction of Electron Waves and Localized Magnetic Charge. Microscopy and Microanalysis, 2018, 24, 940-941.	0.2	1
285	Methods for preparation and detection of neutron spin-orbit states. New Journal of Physics, 2018, 20, 103012.	1.2	27
286	A Novel Broadband Bi-Functional Metasurface for Vortex Generation and Simultaneous RCS Reduction. IEEE Access, 2018, 6, 63999-64007.	2.6	18
287	Elastic scattering of twisted electrons by diatomic molecules. Physical Review A, 2018, 98, .	1.0	10
288	Proposal for a three-dimensional magnetic measurement method with nanometer-scale depth resolution. Physical Review B, 2018, 98, .	1.1	4
289	Towards topological spectroscopy in the electron microscope with atomic resolution. Microscopy and Microanalysis, 2018, 24, 926-927.	0.2	1
290	On small beams with large topological charge: II. Photons, electrons and gravitational waves. New Journal of Physics, 2018, 20, 063006.	1.2	7
291	Efficient two-port electron beam splitter via a quantum interaction-free measurement. Physical Review A, 2018, 98, .	1.0	7
292	Two-photon annihilation of twisted positrons. Physical Review A, 2018, 98, .	1.0	10
293	Generation of a Lattice of Spin-Orbit Beams via Coherent Averaging. Physical Review Letters, 2018, 121, 183602.	2.9	27
294	Direct Evidence of Topological Defects in Electron Waves through Nanoscale Localized Magnetic Charge. Nano Letters, 2018, 18, 6989-6994.	4.5	2
295	Reversals of Orbital Angular Momentum Transfer and Radiation Torque. Physical Review Applied, 2018, 10, .	1.5	41
296	Generation of Optical Vortices by Nonlinear Inverse Thomson Scattering at Arbitrary Angle Interactions. Astrophysical Journal, 2018, 860, 45.	1.6	37
297	Manifesting the connection between topological structures of quantum stationary coherent states and bundles of classical Lissajous orbits. Europhysics Letters, 2018, 122, 30002.	0.7	6
298	High-performance broadband vortex beam generator using reflective Pancharatnam–Berry metasurface. Optics Communications, 2018, 427, 101-106.	1.0	58

#	Article	IF	CITATIONS
299	Restriction on orbital angular momentum distribution: a role of media in vortex beams propagation. Optics Express, 2018, 26, 17227.	1.7	8
300	Light masks for atom diffraction created from twisted beams with a Gaussian intensity envelope. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 818.	0.9	1
301	Relativistic Quantum Dynamics of Twisted Electron Beams in Arbitrary Electric and Magnetic Fields. Physical Review Letters, 2018, 121, 043202.	2.9	29
302	Efficient orbital angular momentum transfer between plasmons and free electrons. Physical Review B, 2018, 98, .	1.1	35
303	Twisting neutrons may reveal their internal structure. Nature Physics, 2018, 14, 1-2.	6.5	30
304	Electron dynamics in twisted light modes of relativistic intensity. Physics of Plasmas, 2018, 25, .	0.7	35
305	Elastic scattering of twisted electrons by an atomic target: Going beyond the Born approximation. Physical Review A, 2018, 98, .	1.0	18
306	Holographically Probing Longitudinal Magnetic Fields with Electron Vortex Beams. Microscopy and Microanalysis, 2018, 24, 938-939.	0.2	1
307	On reception sampling region of OAM radio beams using concentric circular arrays. , 2018, , .		0
308	Manipulating the topological structure of ultrarelativistic electron beams using Laguerre–Gaussian laser pulse. New Journal of Physics, 2018, 20, 063004.	1.2	31
309	Electron Holography in Phase Space. Advances in Imaging and Electron Physics, 2018, , 141-229.	0.1	0
310	Recovery time of matter Airy beams using the path integral quantum trajectory model. Results in Physics, 2019, 13, 102253.	2.0	3
311	Electron Bessel States in High-Energy Ionization. Journal of Physics: Conference Series, 2019, 1206, 012002.	0.3	4
312	Electron-beam spectroscopy for nanophotonics. Nature Materials, 2019, 18, 1158-1171.	13.3	193
313	All-dielectric metasurfaces for generation and detection of multi-channel vortex beams. Applied Physics Express, 2019, 12, 082004.	1.1	6
314	Twisting and tweezing the spin wave: on vortices, skyrmions, helical waves, and the magnonic spiral phase plate. Journal of Optics (United Kingdom), 2019, 21, 124001.	1.0	14
315	High-order harmonic generation with twisted electrons. Physical Review A, 2019, 100, .	1.0	4
316	Magnetic and Electric Control of Circularly Polarized Emission through Tuning Chiralityâ€Generated Orbital Angular Momentum in Organic Helical Polymeric Nanofibers. Advanced Materials, 2019, 31, e1904857.	11.1	22

#	Article	IF	CITATIONS
317	Generation and detection of spin-orbit coupled neutron beams. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20328-20332.	3.3	29
318	Phase masks for electron microscopy fabricated by thermal scanning probe lithography. Micron, 2019, 127, 102753.	1.1	8
319	Feasibility of an Electron Orbital Angular Momentum Sorter. Microscopy and Microanalysis, 2019, 25, 90-91.	0.2	1
320	Characterization of Surface Contaminants and Features. , 2019, , 107-158.		0
321	Spin–Photon Coupling in Organic Chiral Crystals. Nano Letters, 2019, 19, 9008-9012.	4.5	11
322	High-Angular Splitting Electron Vortex Beams Generated by Topological Defects. Microscopy and Microanalysis, 2019, 25, 88-89.	0.2	3
323	Detailed Investigation of Silicon Nitride Phase Plates Prepared by Focused Ion Beam Milling. Microscopy and Microanalysis, 2019, 25, 900-901.	0.2	1
324	Visualizing gravitational Bessel waves. Physical Review D, 2019, 100, .	1.6	2
325	Fabrication of phase masks from amorphous carbon thin films for electron-beam shaping. Beilstein Journal of Nanotechnology, 2019, 10, 1290-1302.	1.5	4
326	Relativistic quantum-mechanical description of twisted paraxial electron and photon beams. Physical Review A, 2019, 100, .	1.0	20
327	Prospect for detecting magnetism of a single impurity atom using electron magnetic chiral dichroism. Physical Review B, 2019, 100, .	1.1	4
328	Design of Graphene-Based Metamaterial Absorber and Antenna. , 0, , .		3
329	Compton Scattering of Î ³ -Ray Vortex with Laguerre Gaussian Wave Function. Scientific Reports, 2019, 9, 51.	1.6	10
330	OFDM-OAM Modulation for Future Wireless Communications. IEEE Access, 2019, 7, 59114-59125.	2.6	31
331	Strong-field ionization, rescattering, and target structure imaging with vortex electrons. Physical Review A, 2019, 99, .	1.0	26
332	Siberian Snake-Like Behavior for an Orbital Polarization of a Beam of Twisted (Vortex) Electrons. Physics of Particles and Nuclei Letters, 2019, 16, 77-78.	0.1	9
333	Generation of High-Purity Laguerre–Gaussian Beams by Spatial Filtering. IEEE Photonics Journal, 2019, 11, 1-10.	1.0	6
334	Design and analysis of dualâ€band antenna array generating dualâ€mode vortex electromagnetic waves. Microwave and Optical Technology Letters, 2019, 61, 2275-2281.	0.9	6

#	Article	IF	CITATIONS
335	The â€~Celalettin-Field Quantum Observation Tunnel' a Quantum Communication Countermeasure Speculative Structure. American Journal of Engineering and Applied Sciences, 2019, 12, 111-117.	0.3	0
336	Ï€/2 mode converters and vortex generators for electrons. Ultramicroscopy, 2019, 204, 27-33.	0.8	7
337	Probing Higher Orbital Angular Momentum of Laguerre-Gaussian Beams via Diffraction through a Translated Single Slit. Physical Review Applied, 2019, 11, .	1.5	26
338	Multi-Beam Metasurface Antenna by Combining Phase Gradients and Coding Sequences. IEEE Access, 2019, 7, 62087-62094.	2.6	18
339	Twisted magnon beams carrying orbital angular momentum. Nature Communications, 2019, 10, 2077.	5.8	38
340	Nanostructuring of electron beams. Physica Scripta, 2019, 94, 034004.	1.2	16
341	Dynamical enhancement of nonparaxial effects in the electromagnetic field of a vortex electron. Physical Review A, 2019, 99, .	1.0	9
342	Ionization of hydrogen by electron vortex beam. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 094001.	0.6	16
343	Generation of Orbital Angular Momentum Modes Using Fiber Systems. Applied Sciences (Switzerland), 2019, 9, 1033.	1.3	39
344	Open ircuit Ultrafast Generation of Nanoscopic Toroidal Moments: The Swift Phase Generator. Advanced Quantum Technologies, 2019, 2, 1800096.	1.8	5
345	Ultrafast generation and control of an electron vortex beam via chiral plasmonic near fields. Nature Materials, 2019, 18, 573-579.	13.3	120
346	Laguerre-Gaussian mode sorter. Nature Communications, 2019, 10, 1865.	5.8	316
347	Magnetic measurement by electron magnetic circular dichroism in the transmission electron microscope. Ultramicroscopy, 2019, 201, 1-17.	0.8	16
348	Organic Chiral Charge Transfer Magnets. ACS Nano, 2019, 13, 4705-4711.	7.3	24
349	A novel transparent metasurface for polarization-reconfigurable vortex wave generation. IOP Conference Series: Materials Science and Engineering, 2019, 479, 012049.	0.3	0
350	Coiling free electron matter waves. New Journal of Physics, 2019, 21, 043018.	1.2	10
351	Quasi non-diffractive electron Bessel beams using direct phase masks with applications in electron microscopy. New Journal of Physics, 2019, 21, 033007.	1.2	7
352	Electric Quadrupole Moment and the Tensor Magnetic Polarizability of Twisted Electrons and a Potential for their Measurements. Physical Review Letters, 2019, 122, 063201.	2.9	18

#	Article	IF	CITATIONS
353	Efficient Measurement of the Orbital-Angular-Momentum Spectrum of an Electron Beam via a Dammann Vortex Grating. Physical Review Applied, 2019, 12, .	1.5	6
355	Orbital angular momentum resolved electron magnetic chiral dichroism. Physical Review B, 2019, 100, .	1.1	8
356	Atoms in complex twisted light. Journal of Optics (United Kingdom), 2019, 21, 013001.	1.0	102
357	Orbital Angular Momentum for Wireless Communications. IEEE Wireless Communications, 2019, 26, 100-107.	6.6	157
358	Wavefront reconstruction of vortex beams via a simplified transport of intensity equation and its symmetry based error reduction. Journal of Optics (United Kingdom), 2019, 21, 015602.	1.0	6
359	A multi-functional vortex beam generator based on transparent anisotropic metasurface. Optics Communications, 2019, 435, 311-318.	1.0	7
360	Twisted optical communications using orbital angular momentum. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	2.0	71
361	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. Angewandte Chemie - International Edition, 2020, 59, 1384-1396.	7.2	19
362	Emerging Electron Microscopy Techniques for Probing Functional Interfaces in Energy Materials. Angewandte Chemie, 2020, 132, 1400-1412.	1.6	4
363	Design of electrostatic phase elements for sorting the orbital angular momentum of electrons. Ultramicroscopy, 2020, 208, 112861.	0.8	20
364	Ultrawideband Reflection-Type Metasurface for Generating Integer and Fractional Orbital Angular Momentum. IEEE Transactions on Antennas and Propagation, 2020, 68, 2166-2175.	3.1	105
365	Quantum mechanical formulation of the Busch theorem. Physical Review A, 2020, 102, .	1.0	11
366	Mode decomposed chiral magnetic effect and rotating fermions. Physical Review D, 2020, 102, .	1.6	8
367	Atomic processes with twisted electrons. Journal of Physics: Conference Series, 2020, 1412, 052013.	0.3	1
368	Orbital Angular Momentum Reversal and Asymmetry in Acoustic Vortex Beam Reflection. Physical Review Letters, 2020, 125, 074301.	2.9	34
369	Geometry-induced quantum Hall effect and Hall viscosity. Physical Review B, 2020, 102, .	1.1	2
370	Photons, Orbital Angular Momentum, and Neutrons. Physica Status Solidi (B): Basic Research, 2020, 258, 2000257.	0.7	2
371	Modulation of Orbital-Angular-Momentum Symmetry of Nondiffractive Acoustic Vortex Beams and Realization Using a Metasurface. Physical Review Applied, 2020, 14, .	1.5	16

	Сп	ation Report	
#	Article	IF	CITATIONS
372	Theory of Shaping Electron Wavepackets with Light. ACS Photonics, 2020, 7, 2859-2870.	3.2	54
373	Broadband Vortex Beams Generation With Narrow Divergence Angle Using Polarization Insensitive Metasurface. IEEE Access, 2020, 8, 218062-218068.	2.6	11
374	RESEARCH STATUS AND PROSPECTS OF ORBITAL ANGULAR MOMENTUM TECHNOLOGY IN WIRELESS COMMUNICATION. Progress in Electromagnetics Research, 2020, 168, 113-132.	.1.6	15
375	Vortex electron generated by microwave photon with orbital angular momentum in a magnetic field. AIP Advances, 2020, 10, .	0.6	14
376	Fabrication of low aspect ratio three-element Boersch phase shifters for voltage-controlled three electron beam interference. Journal of Applied Physics, 2020, 128, 134502.	1.1	7
377	Singularity of a relativistic vortex beam and proper relativistic observables. Scientific Reports, 2020, 10, 7417.	1.6	2
378	Doing Spin Physics with Unpolarized Particles. Physical Review Letters, 2020, 124, 192001.	2.9	19
379	Twisted particle collisions: A new tool for spin physics. Physical Review D, 2020, 101, .	1.6	8
380	Twisted Magnon as a Magnetic Tweezer. Physical Review Letters, 2020, 124, 217204.	2.9	42
381	A Mode Reconfigurable Orbital Angular Momentum Water Antenna. IEEE Access, 2020, 8, 89152-8916	50. 2.6	14
382	Analysis of Singularities and Internal Dynamics of Electron Beams. Journal of Physics: Conference Series, 2020, 1540, 012027.	0.3	1
383	Structured ion beams produced by radiative recombination of twisted electrons. Physical Review A, 2020, 101, .	1.0	2
384	Multifunctional Scattering Antenna Array Design for Orbital Angular Momentum Vortex Wave and RCS Reduction. IEEE Access, 2020, 8, 109289-109296.	2.6	24
385	Electromagnetic field of a relativistic electron vortex beam*. Chinese Physics B, 2020, 29, 084102.	0.7	1
386	Spin vortices and skyrmions of a single electron in inhomogeneous magnetic fields. Physical Review B, 2020, 101, .	1.1	3
387	Kinematic surprises in twisted-particle collisions. Physical Review D, 2020, 101, .	1.6	12
388	Tailoring of diversified sound vortices using curved impedance-matched acoustic metasurfaces. Modern Physics Letters B, 2020, 34, 2050121.	1.0	4
389	Multiscale simulation study of anisotropic nanomechanical properties of graphene spirals and their polymer nanocomposites. Mechanics of Materials, 2020, 145, 103376.	1.7	23

#	Article	IF	CITATIONS
390	A quantum propagator for electrons in a round magnetic lens. Advances in Imaging and Electron Physics, 2020, , 89-105.	0.1	4
391	Nanostructured-membrane electron phase plates. Ultramicroscopy, 2020, 217, 113053.	0.8	2
392	High-Performance Transmissive Broadband Vortex Beam Generator Based on Pancharatnam–Berry Metasurface. IEEE Access, 2020, 8, 111802-111810.	2.6	16
393	Paraxial wave function and Gouy phase for a relativistic electron in a uniform magnetic field. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 055003.	1.4	8
394	Electron holography for vortex beams. Applied Physics Express, 2020, 13, 032003.	1.1	4
395	Helical-chiroptical nanowires generated orbital angular momentum for the detection of circularly polarized light. Applied Physics Letters, 2020, 116, .	1.5	20
396	Electromagnetic Wave with OAM and Its Potential Applications in IoT. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 561-572.	0.2	2
397	Effects of the transverse coherence length in relativistic collisions. Physical Review D, 2020, 101, .	1.6	13
398	Talbot effect of orbital angular momentum lattices with single photons. Physical Review A, 2020, 101, .	1.0	21
399	Double ionization of helium by twisted electron beam. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 155203.	0.6	9
400	Interference and interferometry in electron holography. Microscopy (Oxford, England), 2021, 70, 3-16.	0.7	18
401	Control of arrival time using structured wave packets. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 388, 127038.	0.9	2
402	Freeâ€Electron Qubits. Annalen Der Physik, 2021, 533, 2000254.	0.9	30
403	General quantum-mechanical solution for twisted electrons in a uniform magnetic field. Physical Review A, 2021, 103, .	1.0	7
404	Full-Bloch beams and ultrafast Rabi-rotating vortices. Physical Review Research, 2021, 3, .	1.3	11
405	Secure Transmission of Radio Orbital Angular Momentum Beams Based on the Frequency Diverse Array. IEEE Access, 2021, 9, 108924-108931.	2.6	4
406	Generation of electromagnetic solitons with angular momentum. Optics Letters, 2021, 46, 336.	1.7	0
407	An Archimedean Spiral Antenna for Generation of Tunable Angular Momentum Wave. IEEE Access, 2021, 9, 63122-63130.	2.6	8

#	Article	IF	CITATIONS
408	Detecting superposed orbital angular momentum states in the magnetic field by the crystal diffraction. European Physical Journal Plus, 2021, 136, 1.	1.2	9
409	Quantum correlations in electron microscopy. Optica, 2021, 8, 70.	4.8	18
410	Detection of magnetic impurities using electron vortex beams. Applied Physics Letters, 2021, 118, .	1.5	2
411	Electron Vortex Beam Generation via Chiral Light-Induced Inelastic Ponderomotive Scattering. ACS Photonics, 2021, 8, 431-435.	3.2	8
412	Acoustic orbital angular momentum prism for efficient vortex perception. Applied Physics Letters, 2021, 118, .	1.5	13
413	Chirality-driven topological electronic structure of DNA-like materials. Nature Materials, 2021, 20, 638-644.	13.3	83
414	Polarization out of the vortex. Nature Physics, 2021, 17, 549-551.	6.5	0
415	Vortex particles in axially symmetric fields and applications of the quantum Busch theorem. New Journal of Physics, 2021, 23, 033048.	1.2	15
416	Control of quantum electrodynamical processes by shaping electron wavepackets. Nature Communications, 2021, 12, 1700.	5.8	34
417	Optical polarization analogue in free electron beams. Nature Physics, 2021, 17, 598-603.	6.5	15
418	Construction of Dirac spinors for electron vortex beams in background electromagnetic fields. Physical Review Research, 2021, 3, .	1.3	7
419	Exploring the Spatial Features of Electronic Transitions in Molecular and Biomolecular Systems by Swift Electrons. Journal of Chemical Theory and Computation, 2021, 17, 2364-2373.	2.3	1
420	Chirality-dependent scattering of an electron vortex beam by a single atom in a magnetic field. Physical Review A, 2021, 103, .	1.0	6
421	Intensity Interference in a Coherent Spin-Polarized Electron Beam. Physical Review Letters, 2021, 126, 125501.	2.9	19
422	Experimental Demonstration of an Electrostatic Orbital Angular Momentum Sorter for Electron Beams. Physical Review Letters, 2021, 126, 094802.	2.9	39
423	Nature-inspired orbital angular momentum beam generator using aperiodic metasurface. Journal Physics D: Applied Physics, 2021, 54, 275106.	1.3	10
424	A sorter for electrons based on magnetic elements. Ultramicroscopy, 2021, 231, 113287.	0.8	1
425	Fractional Angular Momenta, Gouy and Berry Phases in Relativistic Bateman-Hillion-Gaussian Beams of Electrons. Physical Review Letters, 2021, 126, 134803.	2.9	4

#	Article	IF	CITATIONS
426	Organic chiral ferromagnets with strong spin-chiroptical interactions. Cell Reports Physical Science, 2021, 2, 100442.	2.8	5
427	Terahertz orbital angular momentum: Generation, detection and communication. China Communications, 2021, 18, 131-152.	2.0	23
429	Spatiotemporal Vortex Pulses: Angular Momenta and Spin-Orbit Interaction. Physical Review Letters, 2021, 126, 243601.	2.9	85
430	Beam shaping and probe characterization in the scanning electron microscope. Ultramicroscopy, 2021, 225, 113268.	0.8	9
431	A design of novel photonic crystal fiber with low and flattened dispersion for supporting 84 orbital angular momentum modes. Communications in Theoretical Physics, 2021, 73, 085501.	1.1	11
432	Recent Advances in Generation and Detection of Orbital Angular Momentum Optical Beams—A Review. Sensors, 2021, 21, 4988.	2.1	46
433	Shared aperture metasurface antenna for electromagnetic vortices generation with different topological charges*. Chinese Physics B, 2021, 30, 084101.	0.7	2
434	Chiral logic computing with twisted antiferromagnetic magnon modes. Npj Computational Materials, 2021, 7, .	3.5	20
435	On kinetic electrostatic plasma waves carrying orbital angular momentum. Physics of Plasmas, 2021, 28, .	0.7	3
436	Roulette caustics in transformation optics of structured light beams. Optics Communications, 2021, 490, 126893.	1.0	2
437	Electron vortex beams in nonuniform magnetic fields. Physical Review Research, 2021, 3, .	1.3	3
438	Doubleâ€Twisted Spectroscopy with Delocalized Atoms. Annalen Der Physik, 0, , 2100128.	0.9	2
439	Single and double scattering mechanisms in ionization of helium by electron vortex projectiles. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 155203.	0.6	3
440	Decay of the vortex muon. Physical Review D, 2021, 104, .	1.6	7
441	Tailored high-contrast attosecond electron pulses for coherent excitation and scattering. Physical Review Research, 2021, 3, .	1.3	30
442	Radiative recombination of twisted electrons with hydrogenlike heavy ions: Linear polarization of emitted photons. Physical Review A, 2021, 104, .	1.0	2
443	Imprinting the quantum statistics of photons on free electrons. Science, 2021, 373, eabj7128.	6.0	75
444	Vortex beams of atoms and molecules. Science, 2021, 373, 1105-1109.	6.0	37

		CITATION RE	PORT	
#	Article		IF	CITATIONS
445	High-efficiency ultra-broadband orbital angular momentum beam generators enabled by a fractal metasurface. Journal Physics D: Applied Physics, 2021, 54, 475105.	rrow-based	1.3	6
446	Prospects in x-ray science emerging from quantum optics and nanomaterials. Applied Phy 2021, 119, .	sics Letters,	1.5	18
447	A quantum vortex made of atoms. Science, 2021, 373, 1084-1084.		6.0	1
448	Organic Chiral Spinâ€Optics: The Interaction between Spin and Photon in Organic Chiral I Advanced Optical Materials, 2021, 9, 2101201.	Materials.	3.6	14
449	Advanced Electron Microscopy for Materials Science. Materials Transactions, 2021, 62, 15	89-1595.	0.4	4
450	A semi-classical theory of magnetic inelastic scattering in transmission electron energy los spectroscopy. Ultramicroscopy, 2021, 230, 113390.	S	0.8	5
451	Wideband composite planar spiral antenna for generation of tunable angular momentum Express, 2021, 29, 3754.	wave. Optics	1.7	7
452	Spatio-temporal shaping of a free-electron wave function via coherent light–electron in Rivista Del Nuovo Cimento, 2020, 43, 567-597.	reraction.	2.0	24
453	Topology of transition metal dichalcogenides: the case of the core–shell architecture. N 2020, 12, 23897-23919.	anoscale,	2.8	14
454	Projectile transverse momentum controls emission in electron vortex ionization collisions of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 205205.	Journal	0.6	9
455	Orbital angular momentum superposition states in transmission electron microscopy and bichromatic multiphoton ionization. New Journal of Physics, 2020, 22, 103045.		1.2	8
456	Electronic Maxwell's equations. New Journal of Physics, 2020, 22, 113019.		1.2	8
457	Generation of propagating electron vortex states in photodetachment of Hâ^'. Physical Re 101, .	view A, 2020,	1.0	9
458	Intrinsic multipole moments of non-Gaussian wave packets. Physical Review A, 2019, 99, .		1.0	16
459	Acoustic vortices in inhomogeneous media. Physical Review Research, 2019, 1, .		1.3	30
460	Generation of electron vortices using nonexact electric fields. Physical Review Research, 2	020, 2, .	1.3	18
461	High-purity free-electron momentum states prepared by three-dimensional optical phase r Physical Review Research, 2020, 2, .	nodulation.	1.3	48
462	Generation of Terawatt-Scale Vortex Pulses Based on Optical Parametric Chirped-Pulse An IEEE Photonics Journal, 2020, 12, 1-8.	plification.	1.0	3

ARTICLE IF CITATIONS # Shaping Polaritons to Reshape Selection Rules., 2017,,. 463 3 High-efficiency transparent vortex beam generator based on ultrathin Pancharatnam–Berry 464 1.7 metasurfaces. Optics Express, 2019, 27, 1816. High-efficiency broadband vortex beam generator based on transmissive metasurface. Optics Express, 465 1.7 57 2019, 27, 4281. Generating terahertz perfect optical vortex beams by diffractive elements. Optics Express, 2020, 28, 466 1417. High-performance terahertz vortex beam generator based on square-split-ring metasurfaces. Optics 467 1.7 32 Letters, 2020, 45, 6054. 1-bit digital orbital angular momentum vortex beam generator based on a coding reflective metasurface. Optical Materials Express, 2018, 8, 3470. 1.6 Circular Dammann gratings for enhanced control of the ring profile of perfect optical vortices. 469 3.4 20 Photonics Research, 2020, 8, 648. Electron Vortex Beams and Their Control. Materials Transactions, 2019, 60, 2096-2102. 0.4 Spiral Field Generation in Smith-Purcell Radiation by Helical Metagratings. Research, 2019, 2019, 471 2.8 22 3806132. Encoding and Multiplexing of 2D Images with Orbital Angular Momentum Beams and the Use for 2.8 Multiview Color Displays. Research, 2019, 2019, 9564593. Twisted distorted wave Born approximation as a new tool to investigate collisional processes. 473 2 0.6 Journal of Physics B: Atomic, Molecular and Optical Physics, 0, , . Generation of relativistic positrons carrying intrinsic orbital angular momentum. Physical Review D, 474 1.6 2021, 104, . 475 Electron microscopy gets twisted. Nature, 0, , . 13.7 0 The Spiral Nature of Electron Beams: A Chance to Open a New Frontier of Electron Beam Physics. JPSJ 0.2 News and Comments, 2013, 10, 12. 477 Quantum Cerenkov Radiation from Electron Vortex Beams., 2014, , . 0 Probing Magnetic Plasmons with Vortex Electron Beams., 2014, , 375-391. Uncertainty relation between angle and orbital angular momentum: interference effect in electron 479 0.2 1 vortex beams. Nanosystems: Physics, Chemistry, Mathematics, 2015, , 205-212. ÄŒerenkov Radiation from Particles Carrying Orbital Angular Momentum in a Cylindrical Waveguide. , 2016,,.

#	Article	IF	CITATIONS
481	Current Technology Trends of Transmission Electron Microscopy and Their Future Perspective (Electron Spectroscopy). Materia Japan, 2017, 56, 249-253.	0.1	0
482	Vortex Wave Generation Based on Tensor Holographic Artificial Impedance Surface. Communications in Computer and Information Science, 2018, , 259-263.	0.4	0
483	Numerical simulation on generation and propagation of vortex synchrotron radiation. Journal of Advanced Simulation in Science and Engineering, 2019, 6, 75-79.	0.1	2
484	Spiral Field Generation in Smith-Purcell Radiation by Helical Metagratings. Research, 2019, 2019, 1-8.	2.8	7
485	Encoding and Multiplexing of 2D Images with Orbital Angular Momentum Beams and the Use for Multiview Color Displays. Research, 2019, 2019, 1-11.	2.8	3
486	Creating electron phase holograms using femtosecond laser interference processing. Optics Express, 2019, 27, 20958.	1.7	4
487	Shaping long-lived electron wavepackets for customizable optical spectra. Optica, 2019, 6, 1089.	4.8	0
488	Orbital Angular Momentum Generator Based on Super Smith-Purcell Radiation. , 2020, , .		0
489	Electron impact single ionization of hydrogen molecule by twisted electron beam. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 015203.	0.6	8
490	Breathing mode of relativistic twisted electron beams under periodic magnetic field. Japanese Journal of Applied Physics, 2021, 60, 016501.	0.8	0
491	Revisit of (e,2e) & (e,3e) processes on atoms with twisted electron impact. Journal of Physics: Conference Series, 2020, 1412, 152055.	0.3	0
492	Electron Vortex Beams and Their Control. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2020, 84, 121-127.	0.2	0
493	Direct generation of the lowest-order vortex beam using a spot defect mirror in the ultraviolet region. Optics Letters, 2020, 45, 2115.	1.7	10
494	Principles of electron wave front modulation with two miniature electron mirrors. Ultramicroscopy, 2022, 233, 113424.	0.8	1
495	Generation of Millimeter-wave Orbital Angular Momentum States using Microstrip Line Fed Cylindrical Dielectric Resonator Antenna. , 2021, , .		0
496	Remote state preparation of single-photon orbital-angular-momentum lattices. Physical Review A, 2021, 104, .	1.0	11
497	Semirelativistic (e,2e) study with a twisted electron beam on Cu and Ag. Physical Review A, 2021, 104, .	1.0	5
498	Compact acoustic monolayered metadecoder for efficient and flexible orbital angular momentum demultiplexing. Applied Physics Letters, 2021, 119, 213502.	1.5	13

#	Article	IF	CITATIONS
500	High performance reflective microwave split-square-ring metasurface vortex beam generator. Optics Communications, 2022, 507, 127631.	1.0	7
501	Generation of cylindrical vector dissipative soliton using an ultra-broadband LPFG mode converter with flat conversion efficiency. Optics Express, 2021, 29, 41496.	1.7	4
502	Enhancing the Information Capacity With Modulated Orbital Angular Momentum Holography. IEEE Photonics Journal, 2022, 14, 1-5.	1.0	6
503	Theoretical and practical aspects of the design and production of synthetic holograms for transmission electron microscopy. Journal of Applied Physics, 2022, 131, .	1.1	5
504	OAM Beams Generation Technology in Optical Fiber: A Review. IEEE Sensors Journal, 2022, 22, 3828-3843.	2.4	17
505	Probing the orbital angular momentum of intense vortex pulses with strong-field ionization. Light: Science and Applications, 2022, 11, 34.	7.7	14
506	Eigenmodes of Twisted Spin-Waves in a Thick Ferromagnetic Nanodisk. SSRN Electronic Journal, 0, , .	0.4	0
507	Synergistic Effect of Chiral Nanofibers Amplifying the Orbit Angular Momentum To Enhance Optomagnetic Coupling. ACS Nano, 2022, 16, 4843-4850.	7.3	2
508	Multifunctional Optical Vortex Beam Generator via Cross-Phase Based on Metasurface. Nanomaterials, 2022, 12, 653.	1.9	5
509	From early to present and future achievements of EELS in the TEM. EPJ Applied Physics, 2022, 97, 38.	0.3	9
510	Non-destructive OAM measurement via light–matter interaction. Light: Science and Applications, 2022, 11, 55.	7.7	3
511	Machine learning in scanning transmission electron microscopy. Nature Reviews Methods Primers, 2022, 2, .	11.8	59
512	Molecular dynamics investigation of a one-component model for the stacking motif in complex alloy structures. Journal of Applied Crystallography, 2022, 55, 284-288.	1.9	0
513	Third-order orbital angular momentum pulse generation from a passively Q-switched fiber laser. Optics Express, 2022, 30, 12605.	1.7	3
514	Generation and characteristics of an Airy vortex beam from the anomalous vortex beam. Results in Physics, 2022, 35, 105389.	2.0	14
515	Triple-vortex bremsstrahlung. New Journal of Physics, 2022, 24, 043037.	1.2	1
516	Smile face array: Generating oblique incident and front output vortex beam for both TE and TM waves. IET Microwaves, Antennas and Propagation, 0, , .	0.7	0
517	Generation of Magnon Orbital Angular Momentum by a Skyrmion-Textured Domain Wall in a Ferromagnetic Nanotube. Frontiers in Physics, 2022, 10, .	1.0	5

#	Article	IF	CITATIONS
518	Scattering of slow twisted neutrons by ortho- and parahydrogen. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 437, 128102.	0.9	5
519	Electron spectra for twisted electron collisions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 235204.	0.6	3
520	Orbital angular momentum and beyond in free-space optical communications. Nanophotonics, 2022, 11, 645-680.	2.9	105
521	Twisted Breit-Wheeler electron-positron pair creation via vortex gamma photons. Physical Review Research, 2021, 3, .	1.3	6
523	Dynamical Control of Nuclear Isomer Depletion via Electron Vortex Beams. Physical Review Letters, 2022, 128, 162501.	2.9	5
524	Finite orbital-angular-momentum carried by the final electron and photon in plane-wave electron-nucleus bremsstrahlung. Physical Review Research, 2022, 4, .	1.3	0
525	Multislice method based full-space analysis on mechanical interaction of electron vortex beam with a crystalline particle. Ultramicroscopy, 2022, 238, 113551.	0.8	0
526	On vortex and dark solitons in the cubic–quintic nonlinear Schrödinger equation. Physica D: Nonlinear Phenomena, 2022, 437, 133340.	1.3	7
527	Development of phase-shaped electron energy-loss spectroscopy for nano-optics. Advances in Imaging and Electron Physics, 2022, , .	0.1	0
528	A brief introduction to nano-optics with fast electrons. Advances in Imaging and Electron Physics, 2022, , .	0.1	0
529	Generation of twisted magnons via spin-to-orbital angular momentum conversion. Physical Review B, 2022, 105, .	1.1	2
530	Bunch shaping in electron linear accelerators. Reviews of Modern Physics, 2022, 94, .	16.4	9
531	Triple-differential cross sectionÂfor the twisted-electron-impact ionization of the water molecule. Physical Review A, 2022, 105, .	1.0	3
532	The electron vortices in the system with spin-orbit coupling. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.2	0
533	Twisted electron impact single ionization coincidence cross-sections for noble gas atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2022, 55, 165202.	0.6	2
534	Promises and challenges of high-energy vortex states collisions. Progress in Particle and Nuclear Physics, 2022, 127, 103987.	5.6	22
535	Time diffraction-free transverse orbital angular momentum beams. Nature Communications, 2022, 13, .	5.8	17
536	Plasmonic vortices: a review. Journal of Optics (United Kingdom), 2022, 24, 084004.	1.0	12

#	ARTICLE Twisted-electron-impact single ionization of an <mml:math< th=""><th>IF</th><th>CITATIONS</th></mml:math<>	IF	CITATIONS
537	mathvariant="normal">H <mml:mn>2</mml:mn> <mml:mi mathvariant="normal">O molecule by multicenter distorted-wave calculations. Physical Review A, 2022, 106, .</mml:mi 	1.0	1
538	Electron Symmetric Pearcey Gaussian Vortex Beams. Annalen Der Physik, 2022, 534, .	0.9	2
539	Terahertz quasi non-diffraction Bessel vortex beam generation using three lattice types reflective metasurface. Optics Express, 2022, 30, 31653.	1.7	8
540	Excitation modes of twisted spin-waves in thick ferromagnetic nanodisks. Journal of Magnetism and Magnetic Materials, 2022, 562, 169762.	1.0	2
541	Transmission dynamics of circular–linear edge dislocation solitons in nonlocal nonlinear media. Results in Physics, 2022, 42, 105947.	2.0	3
542	The Longitudinal Plasma Modes of κ-Deformed Kaniadakis Distributed Plasmas Carrying Orbital Angular Momentum. Entropy, 2022, 24, 1211.	1.1	1
543	Twisted Magnon Frequency Comb and Penrose Superradiance. Physical Review Letters, 2022, 129, .	2.9	17
544	Scattering of a twisted electron wavepacket by a finite laser pulse. Physical Review A, 2022, 106, .	1.0	1
545	Annular phase grating-assisted recording of an ultrahigh-order optical orbital angular momentum. Optics Express, 2022, 30, 37526.	1.7	2
546	Orbital angular momentum-resolved convergent-beam electron diffraction by the post-selected injection of electron beam. Microscopy (Oxford, England), 2022, 71, 374-379.	0.7	1
547	Ultrafast Transverse Modulation of Free Electrons by Interaction with Shaped Optical Fields. ACS Photonics, 2022, 9, 3215-3224.	3.2	18
548	Transverse Electron-Beam Shaping with Light. Physical Review X, 2022, 12, .	2.8	7
549	Extension of focal depth by electron quasi-Bessel beam in atomic-resolution scanning transmission electron microscopy. Applied Physics Express, 0, , .	1.1	0
550	High purity orbital angular momentum of light. Optics Express, 2022, 30, 43513.	1.7	3
551	Z _n symmetry in the vortex muon decay. Journal of Physics G: Nuclear and Particle Physics, 2023, 50, 015006.	1.4	4
552	Generation of vortex particles via generalized measurements. European Physical Journal C, 2022, 82, .	1.4	6
553	Spatial domain communication technique for future chipless ID sensors based on vortex terahertz beams generated by metasurfaces. Results in Physics, 2022, 43, 106096.	2.0	1
554	Experimental realization of neutron helical waves. Science Advances, 2022, 8, .	4.7	9

#	Article	IF	CITATIONS
555	Challenging Point Scanning across Electron Microscopy and Optical Imaging using Computational Imaging. , 2022, 2022, .		2
556	Entangling free electrons and optical excitations. Science Advances, 2022, 8, .	4.7	11
557	Attosecond circular-dichroism chronoscopy of electron vortices. Nature Physics, 0, , .	6.5	6
558	Down the RABBIT hole. Nature Physics, O, , .	6.5	1
559	Magnonic Einstein–de Haas Effect: Ultrafast Rotation of Magnonic Microspheres. Physical Review Letters, 2022, 129, .	2.9	3
561	The Synthetic Hilbert Space of Laser-Driven Free-Electrons. Quantum - the Open Journal for Quantum Science, 0, 7, 888.	0.0	2
562	Phase detection of electron vortex beams on structured charge distribution. Applied Physics Letters, 2023, 122, 012403.	1.5	0
563	Multi-beam ultrafast laser processing of free-standing nanofilms. Applied Physics A: Materials Science and Processing, 2023, 129, .	1.1	1
564	Tunable bi-direction terahertz vortex beam generator based on Dirac semimetals. Optics Communications, 2023, 533, 129279.	1.0	3
565	Tunable photon-induced spatial modulation of free electrons. Nature Materials, 2023, 22, 345-352.	13.3	9
567	Tunable Polarizationâ€Preserving Vortex Beam Generator Based on Diagonal Crossâ€Shaped Graphene Structures at Terahertz Frequency. Advanced Optical Materials, 2023, 11, .	3.6	1
568	Generation of Perfect Electron Vortex Beam with a Customized Beam Size Independent of Orbital Angular Momentum. Nano Letters, 2023, 23, 2436-2441.	4.5	2
569	Orbital Angular Momentum in Nanoplasmonic Vortices. ACS Photonics, 2023, 10, 340-367.	3.2	15
570	Transition from eigenmodes to geometric modes characterized by the quantum SU(2) coupled oscillator model: a review. , 2023, 2, 738.		1
571	Quantum wavefunction reconstruction of electron beam in scanning electron microscopy. , 2023, , .		0
572	Orbital angular momentum of optical, acoustic, and quantum-mechanical spatiotemporal vortex pulses. Physical Review A, 2023, 107,	1.0	10
573	Helical particle manipulation based on power-exponent-phase acoustic vortices generated by a sector transducer array. Chinese Physics B, 2023, 32, 064304.	0.7	1
574	Spin-textured neutron beams with orbital angular momentum. Physical Review B, 2023, 107, .	1.1	3

#	ARTICLE	IF	CITATIONS
575	Enhanced Misalignment Estimation of Orbital Angular Momentum Signal Based on Deep Recurrent Neural Networks. IEEE Transactions on Antennas and Propagation, 2023, , 1-1.	3.1	0
576	A compact three-ring nested circularly polarized patch antenna for three-mode OAMs generation. , 2022, , .		0
577	Cyclotron radiation from shaped electron wavefunctions. New Journal of Physics, 2023, 25, 053006.	1.2	1
578	Defect Contrast with 4D-STEM: Understanding Crystalline Order with Virtual Detectors and Beam Modification. Microscopy and Microanalysis, 0, , .	0.2	0
621	Frequency-Domain and Space-Domain Reconfigurable Metasurfaces. , 2024, , 197-222.		0
622	Reflective and Transmission Metasurfaces for Orbital Angular Momentum Vortex Waves Generation. , 2024, , 223-285.		0