

CITATION REPORT

List of articles citing

Magnetic skyrmions: advances in physics and potential appli

DOI: 10.1038/natrevmats.2017.31

Nature Reviews Materials, 2017, 2, .

Source: <https://exaly.com/paper-pdf/66519997/citation-report.pdf>

Version: 2024-04-26

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
1185	Bi-Stability of Magnetic Skyrmions in Ultrathin Multilayer Nanodots Induced by Magnetostatic Interaction. 2017 , 11, 1700259		11
1184	Skyrmions in magnetic multilayers. 2017 , 704, 1-49		281
1183	Skyrmion dynamics in a frustrated ferromagnetic film and current-induced helicity locking-unlocking transition. 2017 , 8, 1717		95
1182	Tuning domain wall velocity with Dzyaloshinskii-Moriya interaction. 2017 , 111, 202402		26
1181	Skyrmion dynamics in width-varying nanotracks and implications for skyrmionic applications. 2017 , 111, 202406		21
1180	Topological spin-hedgehog crystals of a chiral magnet as engineered with magnetic anisotropy. 2017 , 96,		18
1179	Helical waves in easy-plane antiferromagnets. 2017 , 96,		2
1178	Excess velocity of magnetic domain walls close to the depinning field. 2017 , 96,		10
1177	Tailoring magnetic skyrmions by geometric confinement of magnetic structures. 2017 , 111, 242405		3
1176	A compact skyrmionic leaky-integrate-fire spiking neuron device. 2018 , 10, 6139-6146		57
1175	Collective magnetic skyrmion gyrotropic modes in a dot chain. 2018 , 2, 035009		6
1174	Magnetic skyrmions. 2018 , 455, 1-2		
1173	Direct Observation of Domain-Wall Surface Tension by Deflating or Inflating a Magnetic Bubble. 2018 , 9,		23
1172	Dynamics of a magnetic skyrmionium driven by spin waves. 2018 , 112, 142404		32
1171	Skyrmion glass in a 2D Heisenberg ferromagnet with quenched disorder. 2018 , 20, 033006		11
1170	Designing Hysteresis with Dipolar Chains. 2018 , 120, 157202		6
1169	Analysis of electrical-field-dependent Dzyaloshinskii-Moriya interaction and magnetocrystalline anisotropy in a two-dimensional ferromagnetic monolayer. 2018 , 97,		47

1168	Fast micromagnetic simulations on GPU. Recent advances made with μmax^3 . 2018 , 51, 123002	56
1167	Stabilization of magnetic skyrmions by RKKY interactions. 2018 , 97,	13
1166	Face Centered Cubic and Hexagonal Close Packed Skyrmion Crystals in Centrosymmetric Magnets. 2018 , 120, 077202	13
1165	Magnetization pinning in modulated nanowires: from topological protection to the "corkscrew" mechanism. 2018 , 10, 5923-5927	42
1164	Antiferromagnetic spintronics. 2018 , 90,	847
1163	Potential implementation of reservoir computing models based on magnetic skyrmions. 2018 , 8, 055602	73
1162	Vortex-chirality-dependent standing spin-wave modes in soft magnetic nanotubes. 2018 , 123, 033901	7
1161	Chirality in Magnetic Multilayers Probed by the Symmetry and the Amplitude of Dichroism in X-Ray Resonant Magnetic Scattering. 2018 , 120, 037202	44
1160	Multiplet of Skyrmion States on a Curvilinear Defect: Reconfigurable Skyrmion Lattices. 2018 , 120, 067201	41
1159	Mesoscale Dzyaloshinskii-Moriya interaction: geometrical tailoring of the magnetochirality. 2018 , 8, 866	33
1158	Chemical Pressure Stabilization of the Cubic B20 Structure in Skyrmion Hosting $\text{Fe}_{1-x}\text{Co}_x\text{Ge}$ Alloys. 2018 , 30, 1146-1154	17
1157	Observation of unconventional anomalous Hall effect in epitaxial CrTe thin films. 2018 , 11, 3116-3121	38
1156	Probing condensed matter physics with magnetometry based on nitrogen-vacancy centres in diamond. <i>Nature Reviews Materials</i> , 2018 , 3,	73-3 214
1155	A transmission electron microscope study of Néel skyrmion magnetic textures in multilayer thin film systems with large interfacial chiral interaction. 2018 , 8, 5703	26
1154	Theory of high-resolution tunneling spin transport on a magnetic skyrmion. 2018 , 97,	2
1153	Nanoscale control of perpendicular magnetic anisotropy, coercive force and domain structure in ultrathin Ru/Co/W/Ru films. 2018 , 454, 78-84	8
1152	Direct writing of room temperature and zero field skyrmion lattices by a scanning local magnetic field. 2018 , 112, 132405	54
1151	Topological Hall effect in diffusive ferromagnetic thin films with spin-flip scattering. 2018 , 97,	9

1150	Theory of isolated magnetic skyrmions: From fundamentals to room temperature applications. 2018 , 8, 4464	149
1149	Laser-Induced Skyrmion Writing and Erasing in an Ultrafast Cryo-Lorentz Transmission Electron Microscope. 2018 , 120, 117201	75
1148	Avalanches and Criticality in Driven Magnetic Skyrmions. 2018 , 120, 117203	13
1147	Magnetic Recording Measurements. 2018 ,	
1146	Topological Defects in Helical Magnets. 2018 , 127, 922-932	2
1145	Realization of artificial skyrmion in CoCrPt/NiFe bilayers. 2018 , 27, 127503	2
1144	Magnetic Skyrmion Dynamics in Wedge-shaped Nanotrack and Its Potential Applications.. 2018 ,	
1143	Magnetostatics of magnetic skyrmion crystals. 2018 , 20, 063029	2
1142	Single Chiral Skyrmions in Ultrathin Magnetic Films. 2018 , 11,	5
1141	Alternative to the topological interpretation of the transverse resistivity anomalies in SrRuO ₃ . 2018 , 98,	63
1140	Spin-motive force due to domain-wall motion in the presence of Dzyaloshinskii-Moriya interaction. 2018 , 98,	4
1139	General theory of the topological Hall effect in systems with chiral spin textures. 2018 , 98,	29
1138	Strain-mediated voltage-controlled switching of magnetic skyrmions in nanostructures. 2018 , 4,	29
1137	Observation of room-temperature magnetic skyrmions in Pt/Co/W structures with a large spin-orbit coupling. 2018 , 98,	13
1136	Collective antiskyrmion-mediated phase transition and defect-induced melting in chiral magnetic films. 2018 , 8, 16675	3
1135	Duplication, Collapse, and Escape of Magnetic Skyrmions Revealed Using a Systematic Saddle Point Search Method. 2018 , 121, 197202	25
1134	Creation of a thermally assisted skyrmion lattice in Pt/Co/Ta multilayer films. 2018 , 113, 192403	28
1133	Antiferromagnetic MnNi tips for spin-polarized scanning probe microscopy. 2018 , 89, 123706	5

1132	Formation of a Domain Structure in Multilayer CoPt Films by Magnetic Probe of an Atomic Force Microscope. 2018 , 60, 2200-2206	11
1131	Chiral Skyrmion and Skyrmionium States Engineered by the Gradient of Curvature. 2018 , 10,	22
1130	Perspective: Magnetic skyrmions Overview of recent progress in an active research field. 2018 , 124, 240901	225
1129	Cooperative Charge Pumping and Enhanced Skyrmion Mobility. 2018 , 121, 257203	6
1128	Modeling the Shape of Axisymmetric Skyrmions in Magnetic Multilayers. 2018 , 10,	21
1127	Control of ferromagnetism and magnetic anisotropy via tunable electron correlation and spin-orbital coupling in La _{0.67} Ca _{0.33} MnO ₃ /Ca(Ir,Ru)O ₃ superlattices. 2018 , 113, 231601	7
1126	A Comparative Study on Racetrack Memories: Domain Wall vs. Skyrmion. 2018 ,	5
1125	Relaxation Dynamics of Zero-Field Skyrmions over a Wide Temperature Range. 2018 , 18, 7777-7783	18
1124	Elusive spin textures discovered. 2018 , 564, 43-44	8
1123	Annealing effect and interlayer modulation on magnetic damping of CoFeB/interlayer/Pt thin films. 2018 , 113, 222403	11
1122	Topological Hall effect for electron scattering on nanoscale skyrmions in external magnetic field. 2018 , 98,	6
1121	Morphological stripe-bubble transition in remanent magnetic domain patterns of Co/Pt multilayer films and its dependence on Co thickness. 2018 , 98,	14
1120	Dzyaloshinskii-Moriya interaction at disordered interfaces from ab initio theory: Robustness against intermixing and tunability through dusting. 2018 , 113, 232403	26
1119	Topological Materials in Heusler Compounds. 2018 , 199-210	0
1118	Torsion-induced vortex switching and skyrmion-like state in ferroelectric nanodisks. 2018 , 30, 465304	7
1117	Enhancement of spin-orbit coupling at manganite surfaces. 2018 , 98,	3
1116	New magnetic phase of the chiral skyrmion material CuOSeO. 2018 , 4, eaat7323	41
1115	Skyrmions in the Moiré van der Waals 2D Magnets. 2018 , 18, 7194-7199	80

1114	Impurity-induced orbital magnetization in a Rashba electron gas. 2018 , 98,	3
1113	Magnetic Skyrmions in Thin Films. 2018 , 117-150	1
1112	Writing skyrmions with a magnetic dipole. 2018 , 124, 113901	15
1111	Spontaneous nanometric magnetic bubbles with various topologies in spin-reoriented $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$. 2018 , 113, 142408	4
1110	Electronic and magnetic structure investigation of vanadium doped ZnO nanostructure. 2018 , 158, 257-262	17
1109	Skyrmion Lattice Topological Hall Effect near Room Temperature. 2018 , 8, 15510	17
1108	Ferroelectrically tunable magnetic skyrmions in ultrathin oxide heterostructures. 2018 , 17, 1087-1094	158
1107	Universality of defect-skyrmion interaction profiles. 2018 , 9, 4395	38
1106	Spatial Bunching of Same-Index Polarization Singularities in Two-Dimensional Random Vector Waves. 2018 , 8,	3
1105	Pb-induced skyrmions in a double layer of Fe on Ir(111). 2018 , 98,	3
1104	Thermodynamic evidence of a second skyrmion lattice phase and tilted conical phase in Cu_2OSeO_3 . 2018 , 98,	19
1103	High-resolution combined tunneling electron charge and spin transport theory of Néel and Bloch skyrmions. 2018 , 98,	4
1102	Nucleation of stripe domains in thin ferromagnetic films. 2018 , 98,	3
1101	Magnetic Ground State Stabilized by Three-Site Interactions: Fe/Rh(111). 2018 , 120, 207202	23
1100	Evolution of topological skyrmions across the spin reorientation transition in Pt/Co/Ta multilayers. 2018 , 97,	25
1099	Creation of localized skyrmion bubbles in Co/Pt bilayers using a spin-valve nanopillar. 2018 , 97,	7
1098	Electrical-field-induced magnetic Skyrmion ground state in a two-dimensional chromium tri-iodide ferromagnetic monolayer. 2018 , 8, 055316	19
1097	Tuning the Dzyaloshinskii-Moriya interaction in Pt/Co/MgO heterostructures through the MgO thickness. 2018 , 10, 12062-12067	45

1096	Magnetic domain wall creep and depinning: A scalar field model approach. 2018 , 97, 062122	10
1095	Ferrimagnetic Heterostructures for Applications in Magnetic Recording. 2018 , 267-331	7
1094	Lorentz transmission electron microscopy studies on topological magnetic domains. 2018 , 27, 066802	12
1093	Topological Order Generated by a Random Field in a 2D Exchange Model. 2018 , 121, 017201	7
1092	Compass-anisotropy-modulated helical states and skyrmion crystals in chiral magnets. 2018 , 382, 2944-2951	1
1091	Correlation between domain wall creep parameters of thin ferromagnetic films. 2018 , 112, 262402	7
1090	Heusler, Weyl and Berry. <i>Nature Reviews Materials</i> , 2018 , 3, 244-256	73-3 123
1089	Twisted skyrmions at domain boundaries and the method of image skyrmions. 2018 , 98,	14
1088	Quantum collapse of a magnetic skyrmion. 2018 , 98,	21
1087	Fluctuation-induced Néel and Bloch skyrmions at topological insulator surfaces. 2018 , 98,	4
1086	Defect-Induced Anomalous Transverse Resistivity in an Itinerant Ferromagnetic Oxide. 2018 , 255, 1800175	22
1085	Magnetic field gradient driven dynamics of isolated skyrmions and antiskyrmions in frustrated magnets. 2018 , 20, 053037	24
1084	Circular heat and momentum flux radiated by magneto-optical nanoparticles. 2018 , 97,	26
1083	Efficient in-line skyrmion injection method for synthetic antiferromagnetic systems. 2018 , 20, 013029	6
1082	Distinct magnetic field dependence of Néel skyrmion sizes in ultrathin nanodots. 2018 , 8, 6280	22
1081	Enhanced interfacial Dzyaloshinskii-Moriya interaction and isolated skyrmions in the inversion-symmetry-broken Ru/Co/W/Ru films. 2018 , 112, 192406	28
1080	Determination of chirality and density control of Néel-type skyrmions with in-plane magnetic field. 2018 , 1,	30
1079	Trochoidal motion and pair generation in skyrmion and antiskyrmion dynamics under spin-orbit torques. 2018 , 1, 451-457	49

- 1078 Magnetic domain texture and the Dzyaloshinskii-Moriya interaction in Pt/Co/IrMn and Pt/Co/FeMn thin films with perpendicular exchange bias. **2018**, 98, 13
- 1077 Imaging Magnetic Domains in Functional Nanoscale Heterostructures using Lorentz microscopy. **2018**, 24, 910-911
- 1076 Scalable magnetic skyrmions in nanostructures. **2018**, 154, 481-487 11
- 1075 Skyrmion Gas Manipulation for Probabilistic Computing. **2018**, 9, 96
- 1074 Pure spin currents in magnetically ordered insulator/normal metal heterostructures. **2018**, 51, 313001 28
- 1073 Role of the Heavy Metal $\bar{\Gamma}$ Crystal Phase in Oscillations of Perpendicular Magnetic Anisotropy and the Interfacial Dzyaloshinskii-Moriya Interaction in W/Co $\bar{\Gamma}$ BeB/MgO Films. **2018**, 9, 18
- 1072 Comparing skyrmions and merons in chiral liquid crystals and magnets. **2018**, 97, 062706 31
- 1071 Majorana bound states in magnetic skyrmions imposed onto a superconductor. **2019**, 100, 18
- 1070 Orbital Magnetic Moments in Strained SrRuO₃ Thin Films. **2019**, 88, 084708 3
- 1069 Tunable magnetic skyrmions in spintronic nanostructures for cellular-level magnetic neurostimulation. **2019**, 52, 465002 3
- 1068 Switching magnetization with a Weyl semimetal. **2019**, 14, 923-924
- 1067 Stability of biskyrmions in centrosymmetric magnetic films. **2019**, 100, 13
- 1066 Route to form skyrmions in soft magnetic films. **2019**, 7, 081114 9
- 1065 Experimental Observation of Exchange-Driven Chiral Effects in Curvilinear Magnetism. **2019**, 123, 077201 32
- 1064 Hydrodynamics of three-dimensional skyrmions in frustrated magnets. **2019**, 100, 5
- 1063 Optimizing propagating spin wave spectroscopy. **2019**, 115, 012403 7
- 1062 Mapping magnetization states in ultrathin films with Dzyaloshinskii-Moriya interaction. **2019**, 21, 093022 4
- 1061 Isolated zero field sub-10 nm skyrmions in ultrathin Co films. **2019**, 10, 3823 46

1060	Skyrmions and Hall transport. 2019 , 31, 383001	10
1059	Weak localization in systems with chiral spin textures and skyrmion crystals. 2019 , 100,	1
1058	Surface pinning and triggered unwinding of skyrmions in a cubic chiral magnet. 2019 , 100,	1
1057	Directional spin-wave propagation in the skyrmion chain. 2019 , 490, 165542	4
1056	Spintronics, from giant magnetoresistance to magnetic skyrmions and topological insulators. 2019 , 20, 817-831	18
1055	Manipulation of magnetic skyrmions by superconducting vortices in ferromagnet-superconductor heterostructures. 2019 , 100,	13
1054	Control of vortex chirality in bi-component magnetic nanodisks. 2019 , 115, 042402	3
1053	Chiral spin ordering of electron gas in solids with broken time reversal symmetry. 2019 , 9, 10817	3
1052	Experimental Observation of Single Skyrmion Signatures in a Magnetic Tunnel Junction. 2019 , 122, 257201	27
1051	Formation of Zero-Field Magnetic Bubbles and Magnetic Phase Transitions in PbFe ₁₂ O ₁₉ via In Situ Lorentz Microscopy. 2019 , 256, 1900157	1
1050	Direct current-tunable MHz to multi-GHz skyrmion generation and control. 2019 , 9, 9496	4
1049	Measuring the formation energy barrier of skyrmions in zinc-substituted Cu ₂ OSeO ₃ . 2019 , 99,	15
1048	Interfacial spin Seebeck effect in noncollinear magnetic systems. 2019 , 99,	9
1047	Universality of annihilation barriers of large magnetic skyrmions in chiral and frustrated magnets. 2019 , 100,	16
1046	Tuning Magnetic Chirality by Dipolar Interactions. 2019 , 123, 157201	12
1045	Photonic Heterostructures for Spin-Flipped Beam Splitting. 2019 , 12,	10
1044	Skyrmion-Based Ultra-Low Power Electric-Field-Controlled Reconfigurable (SUPER) Logic Gate. 2019 , 40, 1984-1987	20
1043	Scaling and channelling behavior of helical and skyrmion spin textures in thin films of Te-doped Cu ₂ OSeO ₃ . 2019 , 25, 30-31	

1042	Comparative study of topological Hall effect and skyrmions in NiMnIn and NiMnGa. 2019 , 115, 172404	11
1041	Complex magnetism of B20-MnGe: from spin-spirals, hedgehogs to monopoles. 2019 , 31, 485801	8
1040	Nonequilibrium skyrmion accumulation induced by direct current in Ir/Co/Pt heterostructure. 2019 , 12, 073002	7
1039	Electric-field control of collective spin excitations in N�l-type skyrmions. 2019 , 12, 093003	2
1038	Topological Magnetic-Spin Textures in Two-Dimensional van der Waals CrGeTe. 2019 , 19, 7859-7865	56
1037	Tuning Resonance Frequency of Spin Wave Localized in an Isolated Skyrmion by Magnetoelectric Couplings. 2019 , 09, 1950009	1
1036	Dynamics of an antiferromagnetic skyrmion in a racetrack with a defect. 2019 , 100,	19
1035	Formation of N�l-type skyrmions in an antidot lattice with perpendicular magnetic anisotropy. 2019 , 100,	11
1034	Analytical modeling of the interaction between skyrmions and extended defects. 2019 , 100,	12
1033	Evidence for Magnetic Skyrmions at the Interface of Ferromagnet/Topological-Insulator Heterostructures. 2019 , 19, 6144-6151	30
1032	Thermal collapse of a skyrmion. 2019 , 126, 083901	7
1031	Magneto-Optical and Micromagnetic Properties of Ferromagnet/Heavy Metal Thin Film Structures. 2019 , 18, 1940019	3
1030	Controlling skyrmion bubble confinement by dipolar interactions. 2019 , 115, 102402	4
1029	Ultrafast control of spin interactions in honeycomb antiferromagnetic insulators. 2019 , 100,	8
1028	Micromagnetic and Magneto-optical Properties of Ferromagnetic/Heavy Metal Thin Film Structures. 2019 , 61, 1577-1582	4
1027	Opportunities and challenges for magnetoelectric devices. 2019 , 7, 080905	42
1026	Current-induced spin-orbit torques in ferromagnetic and antiferromagnetic systems. 2019 , 91,	418
1025	Tunable skyrmion-skyrmion binding on the surface of a topological insulator. 2019 , 100,	1

1024	Electrifying skyrmion bubbles. 2019 , 568, 322-323	2
1023	Stabilization of the skyrmion crystal phase and transport in thin-film antiferromagnets. 2019 , 100,	4
1022	Generation and stability of structurally imprinted target skyrmions in magnetic multilayers. 2019 , 115, 112404	9
1021	Smectic Liquid-Crystalline Structure of Skyrmions in Chiral Magnet $\text{Co}_{\{8.5\}}\text{Zn}_{\{7.5\}}\text{Mn}_{\{4\}}(110)$ Thin Film. 2019 , 123, 137203	13
1020	Skyrmion motion induced by voltage-controlled in-plane strain gradients. 2019 , 115, 132401	14
1019	Ultrafast spin dynamics and spintronics for ferrimagnets close to the spin compensation point (Review). 2019 , 45, 935-963	28
1018	Identifying magnetic skyrmions in polycrystalline MnSi via magnetometry. 2019 , 257, 126714	2
1017	Magnetic topological insulators. 2019 , 1, 126-143	300
1016	Chaotic dynamics in spin-vortex pairs. 2019 , 99,	6
1015	Magnon Modes for a Magnetic Disc in a Cone Vortex State. 2019 , 45, 92-97	
1014	The limit to realize an isolated magnetic single skyrmionic state. 2019 , 7, 1337-1344	4
1013	Concept of artificial magnetoelectric materials via geometrically controlling curvilinear helimagnets. 2019 , 52, 345001	16
1012	Collective modes of three-dimensional magnetic structures: A study of target skyrmions. 2019 , 489, 165447	8
1011	Comparison of first-principles methods to extract magnetic parameters in ultrathin films: Co/Pt(111). 2019 , 99,	16
1010	Spin-orbit torque magnetoresistive random-access memory (SOT-MRAM). 2019 , 203-235	3
1009	Order and disorder in the magnetization of the chiral crystal CrNb ₃ S ₆ . 2019 , 99,	15
1008	Electrical Detection of Magnetic Skyrmions. 2019 , 197, 321-336	13
1007	KKRnano: Quantum Description of Skyrmions in Chiral B20 Magnets. 2019 , 489-503	

1006	Quantification of Mixed Bloch-Néel Topological Spin Textures Stabilized by the Dzyaloshinskii-Moriya Interaction in Co/Pd Multilayers. 2019 , 122, 237201	21
1005	Continuous nucleation dynamics of magnetic skyrmions in T-shaped chiral ferromagnetic nanojunction. 2019 , 489, 165372	1
1004	Configurational entropy of magnetic skyrmions as an ideal gas. 2019 , 99,	11
1003	Modulation of Heavy Metal/Ferromagnetic Metal Interface for High-Performance Spintronic Devices. 2019 , 5, 1900134	33
1002	Impact of interlayer coupling on magnetic skyrmion size. 2019 , 489, 165399	6
1001	Structure and Magnetic Properties of (Cr,Ni) _{4-x} CoxSi. 2019 , 289, 108-113	0
1000	Nanoscale magnetic skyrmions and target states in confined geometries. 2019 , 99,	30
999	Application of machine learning to two-dimensional Dzyaloshinskii-Moriya ferromagnets. 2019 , 99,	8
998	Effect of Dzyaloshinskii-Moriya Interaction Energy Confinement on Current-Driven Dynamics of Skyrmions. 2019 , 13, 1900090	6
997	Deterministic Switching of Ferroelectric Bubble Nanodomains. 2019 , 29, 1808573	21
996	Dipolar interactions in Fe: A study with the neutron Larmor precession technique MIEZE in a longitudinal field configuration. 2019 , 99,	7
995	Topological and Chiral Spin Hall Effects. 2019 , 256, 1900033	6
994	Spin-wave mediated interactions for majority computation using Skyrmions and spin-torque nano-oscillators. 2019 , 486, 165271	3
993	Scaling of domain cascades in stripe and skyrmion phases. 2019 , 10, 1988	7
992	Spin fluctuations, geometrical size effects, and zero-field topological order in textured MnSi thin films. 2019 , 99,	2
991	Current-Driven Dynamics of Frustrated Skyrmions in a Synthetic Antiferromagnetic Bilayer. 2019 , 11,	18
990	Skyrmion Hall effect with spatially modulated Dzyaloshinskii-Moriya interaction. 2019 , 14, 1	5
989	Twists in ferromagnetic monolayers with trigonal prismatic symmetry. 2019 , 99,	6

988	Topological transitions among skyrmion- and hedgehog-lattice states in cubic chiral magnets. 2019 , 10, 1059	60
987	Interaction of Skyrmions and Pearl Vortices in Superconductor-Chiral Ferromagnet Heterostructures. 2019 , 122, 097001	20
986	Chiral magnetic skyrmions with arbitrary topological charge. 2019 , 99,	34
985	Quantifying chiral exchange interaction for Néel-type skyrmions via Lorentz transmission electron microscopy. 2019 , 99,	13
984	Spin Torque Efficiency and Analytic Error Rate Estimates of Skyrmion Racetrack Memory. 2019 , 9, 4827	18
983	Shape of a skyrmion. 2019 , 31, 165802	0
982	Chirally coupled nanomagnets. 2019 , 363, 1435-1439	71
981	Observation of magnetic skyrmions in unpatterned symmetric multilayers at room temperature and zero magnetic field. 2019 , 9, 4144	20
980	SkyLogic [®] Proposal for a Skyrmion-Based Logic Device. 2019 , 66, 1990-1996	17
979	Manipulation of magnetic skyrmions in a locally modified synthetic antiferromagnetic racetrack. 2019 , 482, 155-159	7
978	Element-specific soft x-ray spectroscopy, scattering, and imaging studies of the skyrmion-hosting compound Co ₈ Zn ₈ Mn ₄ . 2019 , 99,	16
977	Low-field formation of room-temperature biskyrmions in centrosymmetric MnPdGa magnet. 2019 , 114, 142404	12
976	Current-Induced Nucleation and Dynamics of Skyrmions in a Co-based Heusler Alloy. 2019 , 11,	16
975	Two-dimensional skyrmion bags in liquid crystals and ferromagnets. 2019 , 15, 655-659	76
974	Observation of Nanoscale Skyrmions in SrIrO/SrRuO Bilayers. 2019 , 19, 3169-3175	76
973	Oxidation dependence of the Dzyaloshinskii-Moriya interaction in Pt/Co/MO _x trilayers (M=Al or Gd). 2019 , 99,	16
972	Stabilizing zero-field skyrmions in Ir/Fe/Co/Pt thin film multilayers by magnetic history control. 2019 , 114, 072401	26
971	Anatomy of Skyrmionic Textures in Magnetic Multilayers. 2019 , 31, e1807683	41

970	Sculpting stable structures in pure liquids. 2019 , 5, eaav4283	13
969	Geometrically Tailored Skyrmions at Zero Magnetic Field in Multilayered Nanostructures. 2019 , 11,	25
968	Skyrmion lifetime in ultrathin films. 2019 , 99,	29
967	Building traps for skyrmions by the incorporation of magnetic defects into nanomagnets: Pinning and scattering traps by magnetic properties engineering. 2019 , 480, 171-185	13
966	Enhancement of the Dzyaloshinskii-Moriya interaction and domain wall velocity through interface intermixing in Ta/CoFeB/MgO. 2019 , 99,	30
965	Construction of a Room-Temperature Pt/Co/Ta Multilayer Film with Ultrahigh-Density Skyrmions for Memory Application. 2019 , 11, 12098-12104	30
964	Theoretical guidelines to create and tune electric skyrmion bubbles. 2019 , 5, eaau7023	27
963	Creation and Destruction of Skyrmions via Electrical Modulation of Local Magnetic Anisotropy in Magnetic Thin Films. 2019 , 11,	3
962	Flat Bands, Indirect Gaps, and Unconventional Spin-Wave Behavior Induced by a Periodic Dzyaloshinskii-Moriya Interaction. 2019 , 122, 067204	23
961	Field-induced double spin spiral in a frustrated chiral magnet. 2019 , 4,	6
960	Statistical Thermodynamics of Chiral Skyrmions in a Ferromagnetic Material. 2019 , 12,	5
959	Individual skyrmion manipulation by local magnetic field gradients. 2019 , 2,	30
958	Chiral edge currents for ac-driven skyrmions in confined pinning geometries. 2019 , 100,	5
957	Magnetic skyrmions in nanostructures of non-centrosymmetric materials. 2019 , 7, 120703	12
956	Interface-driven unusual anomalous Hall effect in MnxGa/Pt bilayers. 2019 , 100,	5
955	Generation and Hall effect of skyrmions enabled using nonmagnetic point contacts. 2019 , 100,	6
954	Formation of Magnetic Nanostructures Using an Atomic Force Microscope Probe. 2019 , 64, 1716-1721	
953	Evidence of the Topological Hall Effect in Pt/Antiferromagnetic Insulator Bilayers. 2019 , 123, 237206	21

952	Optical second harmonic generation in cobalt nanolayers influenced by nonmagnetic heavy metals. 2019,	
951	Thermoelectric microscopy of magnetic skyrmions. 2019, 9, 18443	12
950	Electrical Detection of Domain Walls and Skyrmions in Co Films Using Noncollinear Magnetoresistance. 2019, 123, 237205	8
949	Enhancement of Interfacial Dzyaloshinskii-Moriya Interaction: A Comprehensive Investigation of Magnetic Dynamics. 2019, 12,	4
948	Skyrmion Logic System for Large-Scale Reversible Computation. 2019, 12,	29
947	Existence of in-Plane Magnetic Skyrmion and its Motion under Current Flow. 2019, 12,	15
946	Magnetic tunnel junctions: An efficient way for electrical skyrmion detection investigated by ab initio theory. 2019, 100,	3
945	Quantitative imaging of hybrid chiral spin textures in magnetic multilayer systems by Lorentz microscopy. 2019, 100,	13
944	Weak Crystallization of Fluctuating Skyrmion Textures in MnSi. 2019, 9,	15
943	Magnetic Vortex Induced by Nonmagnetic Impurity in Ferromagnets: Magnetic Multipole and Toroidal around the Vacancy. 2019, 88, 063702	3
942	Current-Induced Dynamics of the Antiferromagnetic Skyrmion and Skyrmionium. 2019, 12,	22
941	From skyrmions to Z2 vortices in distorted chiral antiferromagnets. 2019, 100,	7
940	Control of spintronic and electronic properties of bimetallic and vacancy-ordered vanadium carbide MXenes via surface functionalization. 2019, 21, 25802-25808	14
939	Configurational entropy for skyrmion-like magnetic structures. 2019, 475, 734-740	27
938	Control of ultracold atoms with a chiral ferromagnetic film. 2019, 99,	0
937	Voltage-Driven High-Speed Skyrmion Motion in a Skyrmion-Shift Device. 2019, 11,	19
936	Generation of magnetic skyrmions through pinning effect. 2019, 33, 1950040	1
935	Emergence of Topological Hall Effect in a SrRuO Single Layer. 2019, 31, e1807008	85

934	Manipulation of Magnetization by SpinOrbit Torque. 2019 , 2, 1800052	32
933	Magnetic skyrmions: intriguing physics and new spintronic device concepts. 2019 , 6, 210-212	60
932	Electric Field-Induced Creation and Directional Motion of Domain Walls and Skyrmion Bubbles. 2019 , 19, 353-361	67
931	Interlayer coupling-driven magnetic ordering and magnetization processes in ultrathin Au/Co/Mo/Co/Au film. 2019 , 475, 683-694	5
930	Novel spin-orbit coupling driven emergent states in iridate-based heterostructures. 2019 , 128, 39-53	9
929	Thermal creation of skyrmions in ferromagnetic films with perpendicular anisotropy and Dzyaloshinskii-Moriya interaction. 2020 , 493, 165724	4
928	An Artificial Skyrmion Platform with Robust Tunability in Synthetic Antiferromagnetic Multilayers. 2020 , 30, 1907140	8
927	Magnetic Textures and Dynamics in Magnetic Weyl Semimetals. 2020 , 532, 1900287	14
926	Room-temperature stabilization of antiferromagnetic skyrmions in synthetic antiferromagnets. 2020 , 19, 34-42	142
925	Epitaxial growth of Co on stepped Ru(0001): Stabilization of CoRu magnetic surface alloy. 2020 , 692, 121512	
924	Electric and antiferromagnetic chiral textures at multiferroic domain walls. 2020 , 19, 386-390	36
923	Skyrmion-electronics: writing, deleting, reading and processing magnetic skyrmions toward spintronic applications. 2020 , 32, 143001	112
922	Thermal Decay of a Single Néel Skyrmion via Helicity Slip in a Nanodisk. 2020 , 14, 1900525	2
921	Topological solitons, cholesteric fingers and singular defect lines in Janus liquid crystal shells. 2020 , 16, 2669-2682	11
920	Counting Rules of Nambu-Goldstone Modes. 2020 , 11, 169-187	23
919	Stability and dynamics of skyrmions in ultrathin magnetic nanodisks under strain. 2020 , 183, 145-154	8
918	A ferromagnetic skyrmion-based nano-oscillator with modified profile of Dzyaloshinskii-Moriya interaction. 2020 , 496, 165912	12
917	Design and Performance Analysis of Artificial Neural Network Based Artificial Synapse for Bio-inspired Computing. 2020 , 1294-1302	2

916	Artificial Dense Lattices of Magnetic Skyrmions. 2019 , 13,	7
915	Longitudinal spin Seebeck effect in pyrochlore iridates with bulk and interfacial Dzyaloshinskii-Moriya interaction. 2020 , 101,	2
914	Tunable Magnetic Anisotropy and Dzyaloshinskii-Moriya Interaction in an Ultrathin van der Waals Fe ₃ GeTe ₂ /In ₂ Se ₃ Heterostructure. 2020 , 8,	1
913	SIMBA: A Skyrmionic In-Memory Binary Neural Network Accelerator. 2020 , 56, 1-12	1
912	Discovery of Real-Space Topological Ferroelectricity in Metallic Transition Metal Phosphides. 2020 , 32, e2003479	7
911	Robust Skyrmion Shift Device Through Engineering the Local Exchange-Bias Field. 2020 , 14,	6
910	Unidirectional tilt of domain walls in equilibrium in biaxial stripes with Dzyaloshinskii-Moriya interaction. 2020 , 53, 395003	3
909	Prediction of confined and controllable Bloch points in nanocubes of chiral magnets. 2020 , 102,	3
908	Effect of curvature on the eigenstates of magnetic skyrmions. 2020 , 102,	11
907	Meissner currents induced by topological magnetic textures in hybrid superconductor/ferromagnet structures. 2020 , 102,	2
906	Ferrimagnetic Skyrmions in Topological Insulator/Ferrimagnet Heterostructures. 2020 , 32, e2003380	21
905	Spontaneous creation and annihilation dynamics and strain-limited stability of magnetic skyrmions. 2020 , 11, 3536	2
904	Enhancement of perpendicular magnetic anisotropy and Dzyaloshinskii-Moriya interaction in thin ferromagnetic films by atomic-scale modulation of interfaces. 2020 , 12,	11
903	In-plane Néel wall chirality and orientation of interfacial Dzyaloshinskii-Moriya vector in magnetic films. 2020 , 102,	2
902	Probing the pinning strength of magnetic vortex cores with sub-nanometer resolution. 2020 , 11, 2833	9
901	The microscopic origin of DMI in magnetic bilayers and prediction of giant DMI in new bilayers. 2020 , 6,	15
900	Bimeron clusters in chiral antiferromagnets. 2020 , 6,	8
899	Magnetic skyrmionium diode with a magnetic anisotropy voltage gating. 2020 , 117, 202401	10

898	Spontaneous skyrmionic lattice from anisotropic symmetric exchange in a Ni-halide monolayer. 2020 , 11, 5784	34
897	Chiral Spin Spirals at the Surface of the van der Waals Ferromagnet FeGeTe. 2020 , 20, 8563-8568	15
896	Extreme anti-reflection enhanced magneto-optic Kerr effect microscopy. 2020 , 11, 5937	8
895	Near-BPS baby Skyrmions. 2020 , 2020, 1	2
894	Magnonic Quadrupole Topological Insulator in Antiskyrmion Crystals. 2020 , 125, 207204	14
893	Particle-size dependent structural transformation of skyrmion lattice. 2020 , 11, 5685	3
892	Target Bubbles in FeSn Nanodisks at Zero Magnetic Field. 2020 , 14, 10986-10992	16
891	Strain relaxation induced transverse resistivity anomalies in SrRuO ₃ thin films. 2020 , 102,	12
890	A double quantum dot spin valve. 2020 , 3,	8
889	Observation of compact ferrimagnetic skyrmions in DyCo film. 2020 , 12, 18137-18143	5
888	Skyrmion mass from spin-phonon interaction. 2020 , 102,	0
887	Dynamics of deformed skyrmions and helicity reversal in composite spin valve pillar. 2020 , 33, 2375-2380	
886	Detection of the Chiral Spin Structure in Ferromagnetic SrRuO Thin Film. 2020 , 12, 37757-37763	7
885	Skyrmion-based magnetic traps for ultracold atoms. 2020 , 101,	
884	Stabilizing chiral spin structures via an alternating Dzyaloshinskii-Moriya interaction. 2020 , 102,	4
883	Current-induced generation of skyrmions in Pt/Co/Os/Pt thin films. 2020 , 102,	2
882	Physical foundations and basic properties of magnetic skyrmions. 2020 , 2, 492-498	28
881	Current-driven nucleation and propagation of antiferromagnetic skyrmionium. 2020 , 102,	6

880	Magnetic Skyrmions in a Hall Balance with Interfacial Canted Magnetizations. 2020 , 32, e1907452	10
879	Nonlocal chiral symmetry breaking in curvilinear magnetic shells. 2020 , 3,	22
878	Dynamics of antiferromagnetic skyrmions in the absence or presence of pinning defects. 2020 , 102,	5
877	Large Dzyaloshinskii-Moriya interaction induced by chemisorbed oxygen on a ferromagnet surface. 2020 , 6, eaba4924	26
876	Combing the helical phase of chiral magnets with electric currents. 2020 , 102,	2
875	Dynamic excitations of chiral magnetic textures. 2020 , 8, 100903	19
874	Thermal generation, manipulation and thermoelectric detection of skyrmions. 2020 , 3, 672-679	33
873	Stable states of vortex-like magnetic formations in inhomogeneous magnetically uniaxial films and their behavior in a longitudinal magnetic field. 2020 , 128, 153904	2
872	Stability of long-lived antiskyrmions in the Mn-Pt-Sn tetragonal Heusler material. 2020 , 102,	4
871	Dipole-dominated dissipative magnetic solitons in quasi-one-dimensional spin-torque oscillators. 2020 , 46, 773-778	0
870	Sub-nanoscale atom-by-atom crafting of skyrmion-defect interaction profiles. 2020 , 10, 14655	6
869	Large topological Hall effect in an easy-cone ferromagnet (Cr _{0.9} B _{0.1})Te. 2020 , 117, 052409	6
868	Skyrmion Lattice Phases in Thin Film Multilayer. 2020 , 30, 2004037	10
867	The Experimentalist's Guide to the Cycloid, or Noncollinear Antiferromagnetism in Epitaxial BiFeO ₃ . 2020 , 32, e2003711	15
866	Fractional antiferromagnetic skyrmion lattice induced by anisotropic couplings. 2020 , 586, 37-41	36
865	Depth-Resolved Magnetization Dynamics Revealed by X-Ray Reflectometry Ferromagnetic Resonance. 2020 , 125, 137201	5
864	Strain-tunable ferromagnetism and chiral spin textures in two-dimensional Janus chromium dichalcogenides. 2020 , 102,	22
863	Jahn-Teller Effect and Spin-Orbit Coupling: Friends or Foes?. 2020 , 10,	8

862	Microscopic magnetic Hamiltonian for exotic spin textures in metals. 2020 , 102,	6
861	Planar topological Hall effect from conical spin spirals. 2020 , 102,	6
860	Magnetic droplet solitons. 2020 , 128, 100901	5
859	Topological energy barrier for skyrmion lattice formation in MnSi. 2020 , 102,	0
858	Driven topological transitions in active nematic films. 2020 , 16, 9331-9338	9
857	Analytic Property of Vortex-Type Spin Structures in Itinerant Electron System with Inversion Symmetry. 2020 , 89, 094710	
856	The internal dynamic modes of an antiskyrmion in ultrathin ferromagnetic nanodisks. 2020 , 10, 075222	3
855	Electron Beam Lithography of Magnetic Skyrmions. 2020 , 32, e2003003	14
854	Giant Dzyaloshinskii-Moriya interaction in epitaxial Co/Fe bilayers with C _{2v} symmetry. 2020 , 102,	2
853	Identifying materials with charge-spin physics using charge-spin susceptibility computed from first principles. 2020 , 153, 074105	2
852	Control of Light by Topological Solitons in Soft Chiral Birefringent Media. 2020 , 10,	10
851	Coexistence of distinct skyrmion phases observed in hybrid ferromagnetic/ferrimagnetic multilayers. 2020 , 11, 6365	13
850	First-principles Dzyaloshinskii-Moriya interaction in a non-collinear framework. 2020 , 10, 20339	4
849	Signatures of a liquid-crystal transition in spin-wave excitations of skyrmions. 2020 , 3,	2
848	Competing interactions and spin-vector chirality in spin chains. 2020 , 102,	0
847	Magnon Landau Levels and Spin Responses in Antiferromagnets. 2020 , 125, 257201	6
846	Reservoir Computing with Random Skyrmion Textures. 2020 , 14,	25
845	Large surface magnetization in noncentrosymmetric antiferromagnets. 2020 , 102,	2

844	Structural analysis of high-pressure phase for skyrmion-hosting multiferroic Cu ₂ OSeO ₃ . 2020 , 102,	
843	Refined electron-spin transport model for single-element ferromagnetic systems: Application to nickel nanocontacts. 2020 , 102,	3
842	Electrons in intense laser fields with local phase, polarization, and skyrmionic textures. 2020 , 102,	5
841	Ultrafast Ratchet Dynamics of Skyrmions by Defect Engineering in Materials with Poor Conductivity Under Gigahertz Magnetic Fields. 2020 , 14,	3
840	Stability of in-plane and out-of-plane chiral skyrmions in epitaxial MnSi(111)/Si(111) thin films: Surface twists versus easy-plane anisotropy. 2020 , 102,	4
839	Electrical Control of Skyrmion Density via Skyrmion-Stripe Transformation. 2020 , 14,	2
838	Role of an additional interfacial spin-transfer torque for current-driven skyrmion dynamics in chiral magnetic layers. 2020 , 102,	3
837	Magnetic Direct-Write Skyrmion Nanolithography. 2020 , 14, 14960-14970	8
836	Magnetization dynamics of nanoscale magnetic materials: A perspective. 2020 , 128, 170901	25
835	Robust metastable skyrmions with tunable size in the chiral magnet FePtMo ₃ N. 2020 , 102,	1
834	Quasinormal modes in kink excitations and kink-antikink interactions: a toy model. 2020 , 80, 1	9
833	Wiggling Skyrmions Confined in a Linear Potential Well. 2020 , 14, 2000214	1
832	Large anisotropic topological Hall effect in a hexagonal non-collinear magnet Fe ₅ Sn ₃ . 2020 , 116, 182405	13
831	Ferroelectrically tunable magnetism in BiFeO ₃ /BaTiO ₃ heterostructure revealed by the first-principles calculations. 2020 , 24, 371-377	6
830	Unusual anomalous Hall effect in perpendicularly magnetized YIG films with a small Gilbert damping constant. 2020 , 101,	8
829	Theory of an electron asymmetric scattering on skyrmion textures in two-dimensional systems. 2020 , 32, 415302	1
828	The profile of chiral skyrmions of small radius. 2020 , 33, 3395-3408	8
827	Intrinsic Mixed Bloch-Néel Character and Chirality of Skyrmions in Asymmetric Epitaxial Trilayers. 2020 , 12, 25419-25427	4

826	Oxygen Vacancy-Induced Topological Hall Effect in a Nonmagnetic Band Insulator. 2020 , 3, 2000021	4
825	Control of the magnetic domain of Pt/Co/Ru/MgO multilayer: Effect of Co thickness and Ru insertion. 2020 , 10, 035130	1
824	Perpendicular Magnetic Anisotropy and Dzyaloshinskii-Moriya Interaction at an Oxide/Ferromagnetic Metal Interface. 2020 , 124, 217202	11
823	Materials with strong spin-textured bands. 2020 , 5,	4
822	. 2020 , 67, 2553-2558	10
821	Discovery of Magnetic Single- and Triple-q States in Mn/Re(0001). 2020 , 124, 227203	12
820	Atomistic Perspective of Long Lifetimes of Small Skyrmions at Room Temperature. 2020 , 124, 247201	6
819	Skyrmions in antiferromagnets: Thermal stability and the effect of external field and impurities. 2020 , 127, 213906	6
818	Spin current pumped by confined breathing skyrmion. 2020 , 22, 053029	1
817	Room-temperature skyrmions in strain-engineered FeGe thin films. 2020 , 101,	3
816	Traps for pinning and scattering of antiferromagnetic skyrmions via magnetic properties engineering. 2020 , 127, 193902	3
815	Shear banding, intermittency, jamming, and dynamic phases for skyrmions in inhomogeneous pinning arrays. 2020 , 101,	9
814	Skyrmion-based artificial synapses for neuromorphic computing. 2020 , 3, 148-155	130
813	Skyrmion dynamics and topological sorting on periodic obstacle arrays. 2020 , 22, 053025	8
812	Intrinsic skyrmions in monolayer Janus magnets. 2020 , 101,	42
811	A promising birthplace for skyrmions. 2020 , 19, 369-370	0
810	Meron Spin Textures in Momentum Space. 2020 , 124, 106103	22
809	Magnetic Skyrmion Spin-Torque Nano-Oscillators. 2020 , 14, 2000032	2

808	Quantifying exchange forces of a spin spiral on the atomic scale. 2020 , 11, 1197	2
807	Study of the intensity asymmetry in Brillouin light scattering from magnons in FeNi thin films. 2020 , 504, 166671	1
806	Nanomaterials by design: a review of nanoscale metallic multilayers. 2020 , 31, 292002	30
805	Stabilization of Skyrmions in a Nanodisk Without an External Magnetic Field. 2020 , 13,	1
804	Magnetic Skyrmion Tubes as Nonplanar Magnonic Waveguides. 2020 , 13,	14
803	A spiking neuron constructed by the skyrmion-based spin torque nano-oscillator. 2020 , 116, 122402	10
802	Electronic structure, magnetic anisotropy and Dzyaloshinskii-Moriya interaction in Janus CrIX (X = Br, Cl) bilayers. 2020 , 22, 8647-8657	13
801	Real-space imaging of atomic-scale spin textures at nanometer distances. 2020 , 116, 122406	1
800	Berry phase in superconducting multiterminal quantum dots. 2020 , 101,	3
799	Defect-implantation for the all-electrical detection of non-collinear spin-textures. 2020 , 11, 1602	7
798	Chiral Hall Effect in Noncollinear Magnets from a Cyclic Cohomology Approach. 2020 , 124, 096602	24
797	Controlled Individual Skyrmion Nucleation at Artificial Defects Formed by Ion Irradiation. 2020 , 16, e1907450	11
796	Magnetic skyrmion annihilation by quantum mechanical tunneling. 2020 , 22, 083013	3
795	Skyrmion dynamics and transverse mobility: skyrmion Hall angle reversal on 2D periodic substrates with dc and biharmonic ac drives. 2020 , 93, 1	3
794	Dynamics of chiral state transitions and relaxations in an FeGe thin plate via in situ Lorentz microscopy. 2020 , 12, 14919-14925	2
793	Chiral Magnonics: Reprogrammable Nanoscale Spin Wave Networks Based on Chiral Domain Walls. 2020 , 23, 101153	6
792	A (ϕ^6) soliton with a long-range tail. 2020 , 80, 1	2
791	Current-driven skyrmionium in a frustrated magnetic system. 2020 , 117, 012403	9

790	Instability of skyrmions in magnetic fields. 2020 , 116, 262406	4
789	Imitation of spin density wave order in Cu ₃ Nb ₂ O ₈ . 2020 , 102,	3
788	Topology-Dependent Brownian Gyromotion of a Single Skyrmion. 2020 , 125, 027206	20
787	Interfacial tuning of chiral magnetic interactions for large topological Hall effects in LaMnO/SrIrO heterostructures. 2020 , 6, eaaz3902	24
786	Direct imaging of an inhomogeneous electric current distribution using the trajectory of magnetic half-skyrmions. 2020 , 6, eaay1876	10
785	Systematic derivation of realistic spin models for beyond-Heisenberg solids. 2020 , 101,	22
784	Generation of magnetic skyrmions by focused vortex laser pulses. 2020 , 127, 073904	10
783	Crystal Chemistry and Bonding Patterns of Bismuth-Based Topological Insulators. 2020 , 59, 3437-3451	10
782	Engineering skyrmions and emergent monopoles in topological spin crystals. 2020 , 116, 090501	20
781	The emergence of magnetic skyrmions. 2020 , 73, 44-49	13
780	Anisotropic critical behavior of current-driven skyrmion dynamics in chiral magnets with disorder. 2020 , 22, 033043	3
779	Helicity of magnetic vortices and skyrmions in soft ferromagnetic nanodots and films biased by stray radial fields. 2020 , 101,	5
778	Brightening odd-parity excitons in transition-metal dichalcogenides: Rashba spin-orbit interaction, skyrmions, and cavity polaritons. 2020 , 101,	1
777	Quantum Depinning of a Magnetic Skyrmion. 2020 , 124, 097202	5
776	Stability and dynamics of in-plane skyrmions in collinear ferromagnets. 2020 , 101,	10
775	Turning a chiral skyrmion inside out. 2020 , 101,	6
774	Variation of sign and magnitude of the Dzyaloshinskii-Moriya interaction of a ferromagnet with an oxide interface. 2020 , 101,	7
773	Stripe domains reorientation in ferromagnetic films with perpendicular magnetic anisotropy. 2020 , 3, 024001	5

772	Statistical Properties and Configurational Entropy of a Two-Dimensional Néel Magnetic Skyrmions Population. 2020 , 10, 352	4
771	Overcoming the Limits of the Interfacial Dzyaloshinskii-Moriya Interaction by Antiferromagnetic Order in Multiferroic Heterostructures. 2020 , 32, e1904415	17
770	Creating zero-field skyrmions in exchange-biased multilayers through X-ray illumination. 2020 , 11, 949	34
769	Suppression of the skyrmion Hall effect in planar nanomagnets by the magnetic properties engineering: Skyrmion transport on nanotracks with magnetic strips. 2020 , 504, 166655	7
768	The formation process and structure of the skyrmion bubble lattice in magnetic multilayers. 2020 , 127, 063901	1
767	Numerical Study of Multiple Helical Spin Density Waves and Vortex Spin Structures in Itinerant Electron System. 2020 , 89, 024706	1
766	A low-cost vibrating sample magnetometry based on audio components. 2020 , 502, 166560	1
765	Reversible control of Dzyaloshinskii-Moriya interaction at the graphene/Co interface via hydrogen absorption. 2020 , 101,	8
764	Propagation dynamics of spin excitations along skyrmion strings. 2020 , 11, 256	40
763	Skyrmions get pushed beyond the limit. 2020 , 3, 16-17	1
762	Existence and stability of skyrmion bags in thin magnetic films. 2020 , 116, 022413	6
761	Current-Induced Dynamics and Chaos of Antiferromagnetic Bimerons. 2020 , 124, 037202	26
760	Homogenization of Chiral Magnetic Materials: A Mathematical Evidence of Dzyaloshinskii-Moriya Predictions on Helical Structures. 2020 , 30, 1229-1262	4
759	Determining Surface Terminations and Chirality of Noncentrosymmetric FeGe Thin Films via Scanning Tunneling Microscopy. 2020 , 12, 9896-9901	2
758	Breathing mode of a skyrmion on a lattice. 2020 , 101,	4
757	Dynamical switching of confined magnetic skyrmions under circular magnetic fields. 2020 , 101,	2
756	Dynamics of an elliptical ferromagnetic skyrmion driven by the spin-orbit torque. 2020 , 116, 022407	11
755	Ion-Irradiation-Induced Cobalt/Cobalt Oxide Heterostructures: Printing 3D Interfaces. 2020 , 12, 9858-9864	2

754	Room-Temperature Skyrmions at Zero Field in Exchange-Biased Ultrathin Films. 2020 , 13,	13
753	Modification of magnetocrystalline anisotropy via ion-implantation. 2020 , 10, 045306	3
752	Very large Dzyaloshinskii-Moriya interaction in two-dimensional Janus manganese dichalcogenides and its application to realize skyrmion states. 2020 , 101,	53
751	An intriguing intermediate state as a bridge between antiferroelectric and ferroelectric perovskites. 2020 , 7, 1912-1918	16
750	3D analytical model of skyrmion-like structures in an antiferromagnet with DMI. 2020 , 507, 166800	6
749	Realization of Isolated and High-Density Skyrmions at Room Temperature in Uncompensated Synthetic Antiferromagnets. 2020 , 20, 3299-3305	21
748	Emergent ferromagnetism with tunable perpendicular magnetic anisotropy in short-periodic SrIrO ₃ /SrRuO ₃ superlattices. 2020 , 116, 142401	7
747	Deformation of Néel-type skyrmions revealed by Lorentz transmission electron microscopy. 2020 , 116, 142402	9
746	Scaling, rotation, and channeling behavior of helical and skyrmion spin textures in thin films of Te-doped CuOSeO. 2020 , 6, eaax2138	11
745	Formation and magnetic-field stability of magnetic dipole skyrmions and bubbles in a ferrimagnet. 2020 , 116, 142404	6
744	Static and dynamic properties of bimerons in a frustrated ferromagnetic monolayer. 2020 , 101,	15
743	A ferromagnetic skyrmion-based diode with a voltage-controlled potential barrier. 2020 , 12, 9507-9516	6
742	Robust cycloid crossover driven by anisotropy in the skyrmion host GaV ₄ S ₈ . 2020 , 101,	5
741	Controlling magnetism by interface engineering. 2020 , 361-379	2
740	Effect of interfacial Dzyaloshinskii-Moriya interaction on polarized neutrons reflection. 2020 , 509, 166899	
739	Chiral spin structure of electron gas in systems with magnetic skyrmions. 2020 , 506, 166755	
738	Deterministic approach to skyrmionic dynamics at nonzero temperatures: Pinning sites and racetracks. 2020 , 101,	7
737	Manipulation of the Dzyaloshinskii-Moriya Interaction in Co/Pt Multilayers with Strain. 2020 , 124, 157202	30

736	Magnetic Skyrmion Materials. 2021 , 121, 2857-2897	65
735	Emerging Spintronics Phenomena and Applications. 2021 , 57, 1-34	6
734	Dense skyrmion crystal stabilized through interfacial exchange coupling: Role of in-plane anisotropy. 2021 , 16, 1	0
733	Beyond skyrmions: Review and perspectives of alternative magnetic quasiparticles. 2021 , 895, 1-28	78
732	Spin textures and magnetotransport properties in cobalt/ruthenium and cobalt/palladium bilayers. 2021 , 519, 167447	0
731	High-resolution tunneling spin transport characteristics of topologically distinct magnetic skyrmionic textures from theoretical calculations. 2021 , 519, 167440	1
730	Magnetic skyrmions for unconventional computing. 2021 , 8, 854-868	23
729	Irreversible two-step transition of helix reorientation in MnSi. 2021 , 859, 157756	
728	Molecular Chains: Arranging and Programming Logic Gates. 2021 , 21, 550-555	1
727	Magnetic properties and the interfacial Dzyaloshinskii-Moriya interaction in exchange biased Pt/Co/NixOy films. 2021 , 543, 148720	5
726	Topological Hall Effect in a Topological Insulator Interfaced with a Magnetic Insulator. 2021 , 21, 84-90	9
725	Thickness dependence of interfacial Dzyaloshinskii-Moriya interaction, magnetic anisotropy and spin waves damping in Pt/Co/Ir and Ir/Co/Pt trilayers. 2021 , 519, 167485	4
724	Off-axis electron holography of Néel-type skyrmions in multilayers of heavy metals and ferromagnets. 2021 , 220, 113155	3
723	Recent Progress on Topological Structures in Ferroic Thin Films and Heterostructures. 2021 , 33, e2000857	34
722	Origin of the hump anomalies in the Hall resistance loops of ultrathin SrRuO3/SrIrO3 multilayers. 2021 , 5,	7
721	Néel Skyrmionic States and Chiral Stripes in the Magnetic Bilayer with Transverse Easy Axis. 2021 , 34, 951-958	1
720	Nonequilibrium states in quantum materials under time-period driving. 2021 , 0-0	0
719	Magnetic Skyrmions as Information Entropy Carriers. 2021 , 1-1	0

718	Targeted Writing and Deleting of Magnetic Skyrmions in Two-Terminal Nanowire Devices. 2021 , 21, 1253-1259	7
717	Chirality-induced linear response properties in noncoplanar Mn ₃ Ge. 2021 , 103,	0
716	Electronic properties of two-dimensional Janus atomic crystal. 2021 , 0-0	2
715	Antiferromagnetic Skyrmions and Bimerons. 2021 , 441-457	1
714	Electronic mechanism for nanoscale skyrmions and topological metals. 2021 , 103,	6
713	Rare-earth-free ferrimagnetic Mn ₄ N sub-20 nm thin films as potential high-temperature spintronic material. 2021 , 11, 015334	4
712	Experimental identification of two distinct skyrmion collapse mechanisms. 2021 , 17, 395-402	9
711	Fractal Analysis of Skyrmions Generated by Field-Assisted Fine-tuning of Magnetic Anisotropy. 2021 , 15,	0
710	Honeycomb layered oxides: structure, energy storage, transport, topology and relevant insights. 2021 , 50, 3990-4030	15
709	Square skyrmion crystal in centrosymmetric itinerant magnets. 2021 , 103,	26
708	Conclusion and Outlook. 2021 , 143-149	1
707	Spintronics. 2021 , 305-424	1
706	Unconventional applications of skyrmions. 2021 , 393-416	1
705	Interfacial Dzyaloshinskii-Moriya Interaction, Perpendicular Magnetic Anisotropy and damping in CoFeB/oxide-based systems. 2021 , 1-1	1
704	Megahertz dynamics in skyrmion systems probed with muon-spin relaxation. 2021 , 103,	3
703	The 2021 quantum materials roadmap. 2020 , 3, 042006	48
702	Skyrmions in ferrimagnets. 2021 , 315-332	1
701	Tunable interfacial Dzyaloshinskii-Moriya interaction in symmetrical Au/[Fe/Au] multilayers. 2021 , 13, 2665-2672	1

700	Short period magnetization texture of B20-MnGe explained by thermally fluctuating local moments. 2021 , 103,	7
699	Signal detection based on the chaotic motion of an antiferromagnetic domain wall. 2021 , 118, 012402	1
698	Interfacial Dzyaloshinskii-Moriya interaction in the epitaxial W/Co/Pt multilayers. 2021 , 13, 7685-7693	1
697	Oxygen vacancy induced electronic structure modification of KTaO ₃ . 2021 , 103,	9
696	Observation of second-order meron polarization textures in optical microcavities. 2021 , 8, 255	11
695	Giant topological Hall effect around room temperature in noncollinear ferromagnet NdMn ₂ Ge ₂ single crystal. 2021 , 118, 072402	4
694	Scattering modes of skyrmions in a bilayer system with ferromagnetic coupling. 2021 , 32, 175702	3
693	Emulating spin transport with nonlinear optics, from high-order skyrmions to the topological Hall effect. 2021 , 12, 1092	11
692	Commensurability between Element Symmetry and the Number of Skyrmions Governing Skyrmion Diffusion in Confined Geometries. 2021 , 31, 2010739	3
691	Direct Observation of Fe-Ge Ordering in Fe ₅ GeTe ₂ Crystals and Resultant Helimagnetism. 2021 , 31, 2009758	8
690	Topological structures, spontaneous symmetry breaking and energy spectra in dipole hexagonal lattices. 2021 , 11, 4154	0
689	Ultrathin Co films with Pt and Au covers magnetic and structural properties driven by Ga ⁺ ion irradiation. 2021 , 23, 023015	2
688	Néel-Type Elliptical Skyrmions in a Laterally Asymmetric Magnetic Multilayer. 2021 , 33, e2006924	9
687	Focused-Electron-Beam Engineering of 3D Magnetic Nanowires. 2021 , 11,	4
686	Intrinsic DMI-free skyrmion formation and robust dynamic behaviors in magnetic hemispherical shells. 2021 , 11, 3886	8
685	Thermodynamics of magnetic emergent crystals under coupled magnetoelastic fields. 2021 , 23, 023016	0
684	A frustrated bimeronium: Static structure and dynamics. 2021 , 118, 052411	4
683	Phase Selection in MnBi Alloys by Fast Solid-State Reaction with Enhanced Skyrmion Stability. 2021 , 31, 2009723	2

682	Thermoelectric Signature of Individual Skyrmions. 2021 , 126, 077202	7
681	Thermodynamically stable skyrmion lattice in a tetragonal frustrated antiferromagnet with dipolar interaction. 2021 , 103,	16
680	Enhanced Interface-Driven Perpendicular Magnetic Anisotropy by Symmetry Control in Oxide Superlattices. 2021 , 15,	5
679	Field-Free Manipulation of Skyrmion Creation and Annihilation by Tunable Strain Engineering. 2021 , 31, 2008715	7
678	Universal method for magnetic skyrmion bubble generation by controlling the stripe domain instability. 2021 , 13,	4
677	Domain-Wall Damping in Ultrathin Nanostripes with Dzyaloshinskii-Moriya Interaction. 2021 , 15,	2
676	All-electrical detection of skyrmion lattice state and chiral surface twists. 2021 , 103,	1
675	Helium Ions Put Magnetic Skyrmions on the Track. 2021 , 21, 2989-2996	22
674	A ferromagnetic skyrmion-based nano-oscillator with modified perpendicular magnetic anisotropy. 2021 , 392, 127157	2
673	Creation and observation of Hopfions in magnetic multilayer systems. 2021 , 12, 1562	23
672	Spin-Torque Memristors Based on Perpendicular Magnetic Tunnel Junctions for Neuromorphic Computing. 2021 , 8, 2004645	15
671	First-principles calculation of the Dzyaloshinskii-Moriya interaction: A Green's function approach. 2021 , 103,	5
670	A strategy for the design of magnetic memories in bubble-hosting magnets. 2021 , 118, 122406	8
669	Whirls and swirls of polarization. 2021 , 371, 992-993	0
668	Néel-type skyrmions and their current-induced motion in van der Waals ferromagnet-based heterostructures. 2021 , 103,	30
667	Gapless Spin Wave Transport through a Quantum Canted Antiferromagnet. 2021 , 11,	2
666	Proper and improper chiral magnetic interactions. 2021 , 103,	1
665	Zero-field skyrmions in FeGe thin films stabilized through attaching a perpendicularly magnetized single-domain Ni layer.	0

664	Skyrmion driven by rotary magnetic field on the surface of magnetic nanotube: a Monte Carlo study. 2021 , 32,	1
663	Frustration-driven magnetic fluctuations as the origin of the low-temperature skyrmion phase in Co ₇ Zn ₇ Mn ₆ . 2021 , 6,	2
662	Antiferromagnetic skyrmions and skyrmion density wave in a Rashba-coupled Hund insulator. 2021 , 103,	1
661	Skyrmions near defects. 2021 , 33,	0
660	Magnetic texture based magnonics. 2021 , 905, 1-59	32
659	Anisotropic Skyrmion Diffusion Controlled by Magnetic-Field-Induced Symmetry Breaking. 2021 , 15,	6
658	Chiral spintronics. 2021 , 3, 328-343	41
657	Temperature-modulated magnetic skyrmion phases and transformations analysis from first-order reversal curve study. 2021 , 103,	3
656	Light-induced Dzyaloshinskii-Moriya interactions in antiferromagnetic metals. 2021 , 103,	1
655	Understanding Complex Magnetic Spin Textures with Simulation-Assisted Lorentz Transmission Electron Microscopy. 2021 , 15,	5
654	Observation of Hydrogen-Induced Dzyaloshinskii-Moriya Interaction and Reversible Switching of Magnetic Chirality. 2021 , 11,	11
653	Understanding curvature effects on the magnetization reversal of patterned permalloy Archimedean spirals. 2021 , 118, 152409	4
652	Electric field control of natural optical activity in a multiferroic helimagnet. 2021 , 372, 496-500	8
651	Valley polarization, magnetic anisotropy and Dzyaloshinskii-Moriya interaction of two-dimensional graphene/Janus 2H-VSeX (X = S, Te) heterostructures. 2021 , 174, 540-555	16
650	The temperature-strain phase diagrams of ferromagnetic thin films under different magnetic fields. 2021 , 33,	2
649	Current-induced dynamics of skyrmion tubes in synthetic antiferromagnetic multilayers. 2021 , 103,	4
648	Near-BPS baby Skyrmions with Gaussian tails. 2021 , 2021, 1	0
647	Investigation of self-nucleated skyrmion states in the ferromagnetic/nonmagnetic multilayer dot. 2021 , 118, 212409	4

- 646 Skyrmions at vanishingly small Dzyaloshinskii-Moriya interaction or zero magnetic field. **2021**, 33, 1
- 645 Magnetic skyrmions and bimerons in films with anisotropic interfacial Dzyaloshinskii-Moriya interaction. **2021**, 103, 3
- 644 Voltage-controllable magnetic skyrmion dynamics for spiking neuron device applications.
- 643 Synaptic devices based neuromorphic computing applications in artificial intelligence. **2021**, 18, 100393 31
- 642 Tailoring Helicity Angle of Twisted Skyrmions in Multilayered Nanostructures. **2021**, 15, 2100076 0
- 641 Random walk of antiferromagnetic skyrmions in granular films. **2021**, 103, 1
- 640 Emergence of Room Temperature Magnetotransport Anomaly in Epitaxial Pt/βFeN/MgO Heterostructures toward Noncollinear Spintronics. **2021**, 13, 26639-26648 0
- 639 Tuning Dzyaloshinskii-Moriya interaction in ferrimagnetic GdCo: A first-principles approach. **2021**, 103, 4
- 638 Deriving the skyrmion Hall angle from skyrmion lattice dynamics. **2021**, 12, 2723 3
- 637 Skyrmion devices for memory and logic applications. **2021**, 9, 050901 16
- 636 Skyrmion crystals in centrosymmetric itinerant magnets without horizontal mirror plane. **2021**, 11, 11184 12
- 635 Colossal topological Hall effect at the transition between isolated and lattice-phase interfacial skyrmions. **2021**, 12, 2758 9
- 634 Confinement and Protection of Skyrmions by Patterns of Modified Magnetic Properties. **2021**, 21, 4320-4326 10
- 633 Possible Topological Hall Effect above Room Temperature in Layered CrTe Ferromagnet. **2021**, 21, 4280-4286 3
- 632 Graded magnetic materials. **2021**, 54, 303002 9
- 631 Elastocaloric-effect-induced adiabatic magnetization in paramagnetic salts due to the mutual interactions. **2021**, 11, 9431
- 630 The relation between the radii and the densities of magnetic skyrmions.
- 629 Stability phase diagrams and tuning of magnetic skyrmionium and other states. **2021**, 526, 167706 2

628	Bloch-type photonic skyrmions in optical chiral multilayers. 2021 , 3,	9
627	Nanoscale Materials for State-of-the-Art Magnetic Memory Technologies. 2021 , 22, 175-203	0
626	Stable humplike Hall effect and noncoplanar spin textures in SrRuO ₃ ultrathin films. 2021 , 3,	9
625	Stripe skyrmions and skyrmion crystals. 2021 , 4,	4
624	Skyrmion formation and dynamics in magnetic bilayers via atomistic spin dynamics simulations. 2021 , 130, 114720	0
623	Stability and Lifetimes of Magnetic States of Nano- and Microstructures (Brief Review). 2021 , 113, 801-813	2
622	Strain-driven radial vortex core reversal in geometric confined multiferroic heterostructures. 2021 , 118, 262412	2
621	Tailoring Dzyaloshinskii-Moriya interaction in a transition metal dichalcogenide by dual-intercalation. 2021 , 12, 3639	2
620	Skyrmion battery effect via inhomogeneous magnetic anisotropy. 2021 , 8, 021402	1
619	Majority gate for two-dimensional ferromagnets lacking inversion symmetry. 2021 , 3,	
618	Condensation of collective polar vortex modes. 2021 , 103,	0
617	Domains and domain walls in ferroic materials. 2021 , 129, 230401	1
616	Guided skyrmion motion along pinning array interfaces. 2021 , 528, 167710	1
615	Acoustic control of magnetism toward energy-efficient applications. 2021 , 8, 021304	14
614	Interfacial coupling effect of CrO on the magnetic properties of FeGa thin films. 2021 , 11, 13429	0
613	Large anisotropic Dzyaloshinskii-Moriya interaction in CoFeB(211)/Pt(110) films. 2021 , 118, 262410	0
612	Modulations of interfacial magnetic properties using structurally inverted magnetic tri-layer systems: Toward skyrmion formation. 2021 , 118, 262408	0
611	Skyrmion-Based Programmable Logic Device with Complete Boolean Logic Functions. 2021 , 15,	5

610	Effects of tilted magnetocrystalline anisotropy on magnetic domains in Fe ₃ Sn ₂ thin plates. 2021 , 103,	3
609	Quantum states of a skyrmion in a two-dimensional antiferromagnet. 2021 , 103,	0
608	Magnetism in curved geometries. 2021 , 129, 210902	13
607	Experimental observation of topological Hall effects in compensated ferrimagnet-heavy metal layered structures. 2021 , 64, 1	3
606	Ruderman-Kittel-Kasuya-Yosida-type interfacial Dzyaloshinskii-Moriya interaction in heavy metal/ferromagnet heterostructures. 2021 , 12, 3280	2
605	Directional locking and the influence of obstacle density on skyrmion dynamics in triangular and honeycomb arrays. 2021 , 33,	0
604	Angular dependence of Hall effect and magnetoresistance in SrRuO ₃ /Bi ₂ Se ₃ heterostructures. 2021 , 103,	2
603	Control of Nonlocal Magnon Spin Transport via Magnon Drift Currents. 2021 , 126, 257201	4
602	Kinetics of Magnetic Skyrmion Crystal Formation from the Conical Phase. 2021 , 21, 5547-5554	
601	All-Electrical Magnon Transport Experiments in Magnetically Ordered Insulators. 2021 , 15, 2100130	2
600	Topological insulators and semimetals in classical magnetic systems. 2021 , 915, 1-64	11
599	Tunable microwave properties of a skyrmion in an isolated nanodisk. 2021 , 529, 167900	2
598	Bessel function descriptions of magneto-chiral interactions (DMI)-magnetic and spin flexoelectric skyrmions. 2021 , 613, 412980	
597	Field-Dependent Energy Barriers of Magnetic Néel Skyrmions in Ultrathin Circular Nanodots. 2021 , 16,	0
596	Hierarchy of multi-order skyrmion phases in twisted magnetic bilayers. 2021 , 104,	2
595	Nonvolatile and Volatile Skyrmion Generation Engineered by Ionic Liquid Gating in Ultrathin Films. 2021 , 16,	0
594	Magnetic Skyrmions: Theory and Applications.	1
593	Multiple Coulomb phases with temperature-tunable ice rules in pyrochlore spin-crossover materials. 2021 , 104,	0

592	Van der Waals heterostructures for spintronics and opto-spintronics. 2021 , 16, 856-868	56
591	Control of Néel-type Magnetic Kinks Confined in a Square Nanostructure by Spin-Polarized Currents. 2021 , 9,	0
590	Logic Gates Based on Synthetic Antiferromagnetic Bilayer Skyrmions. 2021 , 16,	3
589	Interfacial Dzyaloshinskii-Moriya interaction and perpendicular magnetic anisotropy at cobalt/diamond interfaces. 2021 , 529, 167852	1
588	Magnetization processes and magnetic domain structures in Ta/CoFeB/MgO stacks. 2021 , 529, 167699	1
587	Magnetic domain wall dynamics in the precessional regime: Influence of the Dzyaloshinskii-Moriya interaction. 2021 , 104,	0
586	Stabilization and topological transformation of magnetic bubbles in disks of a kagome magnet. 2021 , 119, 012402	1
585	Visualizing the strongly reshaped skyrmion Hall effect in multilayer wire devices. 2021 , 12, 4252	1
584	Current-Controlled Topological Magnetic Transformations in a Nanostructured Kagome Magnet. 2021 , 33, e2101610	5
583	Emergence of Nontrivial Spin Textures in Frustrated Van Der Waals Ferromagnets. 2021 , 11,	2
582	Current-induced H-shaped-skyrmion creation and their dynamics in the helical phase. 2021 , 54, 404003	0
581	Defect-Engineered Dzyaloshinskii-Moriya Interaction and Electric-Field-Switchable Topological Spin Texture in SrRuO. 2021 , 33, e2102525	11
580	Nonlinear Dynamics of Topological Ferromagnetic Textures for Frequency Multiplication. 2021 , 16,	2
579	Interplay between Single-Ion and Two-Ion Anisotropies in Frustrated 2D Semiconductors and Tuning of Magnetic Structures Topology. 2021 , 11,	4
578	Finsler geometry modeling and Monte Carlo study of skyrmion shape deformation by uniaxial stress. 2021 , 104,	1
577	Stabilizing Zero-Field Skyrmions at Room-Temperature in Perpendicularly Magnetized Multilayers.	
576	Defect-Induced Magnetic Skyrmion in a Two-Dimensional Chromium Triiodide Monolayer. 2021 , 1, 1362-1367	4
575	Interplay between Spin-Orbit Torques and Dzyaloshinskii-Moriya Interactions in Ferrimagnetic Amorphous Alloys. 2021 , 8, e2100481	2

574	Periodically modulated skyrmion strings in Cu ₂ OSeO ₃ . 2021 , 6,	1
573	Manipulation of Magnetic Skyrmion in a 2D van der Waals Heterostructure via Both Electric and Magnetic Fields. 2021 , 31, 2104452	5
572	The geometric phase in nonlinear frequency conversion. 2022 , 17, 1	6
571	Skyrmion ratchet in funnel geometries. 2021 , 104,	0
570	Influence of Material Parameters on the Stability of Artificial Skyrmion in Hard/Soft Magnetic Bilayers. 2100320	
569	Macroscopic, layered onion shell like magnetic domain structure generated in YIG films using ultrashort, megagauss magnetic pulses. 2021 , 23, 083027	
568	Manipulating density of magnetic skyrmions via multilayer repetition and thermal annealing. 2021 , 104,	3
567	Current-Induced Magnetization Control in Insulating Ferrimagnetic Garnets. 2021 , 90, 081007	5
566	Crystal Symmetry Engineering in Epitaxial Perovskite Superlattices. 2106466	0
565	Photonic Spin Skyrmion with Dynamic Position Control. 2021 , 8, 2567-2572	2
564	Magnonics Based on Thin-Film Iron Garnets. 2021 , 90, 081005	5
563	Review of Raman Spectroscopy of Two-Dimensional Magnetic van der Waals Materials.	0
562	Microdynamic Study of Spin-Lattice Coupling Effects on Skyrmion Transport. 2021 , 127, 097201	2
561	Role of magnetic skyrmions for the solution of the shortest path problem. 2021 , 532, 167977	4
560	Controlled Domain-Wall Pair to Skyrmion Conversion in Typical Junction Geometry Useful for Magnetic Memory Devices. 2021 , 10, 081002	1
559	Dynamics and nonmonotonic drag for individually driven skyrmions. 2021 , 104,	0
558	Spontaneous Topological Magnetic Transitions in NdCo Rare-Earth Magnets. 2021 , 33, e2103751	4
557	Topological magnetic textures in magnetic topological insulators. 2021 , 3,	2

556	Regular and in-plane skyrmions and antiskyrmions from boundary instabilities. 2021 , 104,	0
555	Topological spin textures in a two-dimensional MnBi ₂ (Se, Te) ₄ Janus material. 2021 , 119, 072401	5
554	Imaging the spin chirality of ferrimagnetic Néel skyrmions stabilized on topological antiferromagnetic Mn ₃ Sn. 2021 , 5,	4
553	Large Hall and Nernst responses from thermally induced spin chirality in a spin-trimer ferromagnet. 2021 , 118,	0
552	A spin-wave driven skyrmion diode under transverse magnetic fields. 2021 , 532, 167975	2
551	The Magneto-Transport Properties of Cr _{1/3} TaS ₂ with Chiral Magnetic Solitons. 2021 , 7, 2100424	2
550	Spin-Orbit Torque in Bilayers of Kagome Ferromagnet FeSn and Pt. 2021 , 21, 6975-6982	2
549	Skyrmion based magnonic crystals. 2021 , 130, 090901	9
548	Spontaneous fluctuations in a magnetic Fe/Gd skyrmion lattice. 2021 , 3,	2
547	Cryogenic Electron Microscopy on Strongly Correlated Quantum Materials. 2021 , 54, 3518-3528	2
546	B20-MnSi films grown on Si(100) substrates with magnetic skyrmion signature. 2021 , 100541	
545	Dynamical switching of magnetic topology in microwave-driven itinerant magnet. 2021 , 104,	4
544	Meron-antimeron crystals in noncentrosymmetric itinerant magnets on a triangular lattice. 2021 , 104,	11
543	Nanoscale Near-Field Steering of Magnetic Vortices. 2021 , 16,	0
542	Control of Stripe-Domain-Wall Magnetization in Multilayers Featuring Perpendicular Magnetic Anisotropy. 2021 , 16,	0
541	Observation of Defect-Assisted Magnetic Vortex Core Reversal at Ultralow Critical Velocity. 2021 , 16,	2
540	Electrical Generation and Deletion of Magnetic Skyrmion-Bubbles via Vertical Current Injection. 2021 , 33, e2104406	5
539	Thermally activated dynamics of current-driven skyrmions in random media.	

538	Observation of Acoustic Skyrmions. 2021 , 127, 144502	8
537	Spectroscopy of the frustrated quantum antiferromagnet CsCuCl. 2021 , 33,	
536	Circuits and excitations to enable Brownian token-based computing with skyrmions. 2021 , 119, 132405	3
535	Robust formation of nanoscale magnetic skyrmions in easy-plane anisotropy thin film multilayers with low damping. 2021 , 104,	3
534	Isolated skyrmion, skyrmion lattice and antiskyrmion lattice creation through magnetization reversal in Co/Pd nanostructure. 2021 , 11, 18945	1
533	Novel electronic structures and magnetic properties in twisted two-dimensional graphene/Janus 2H $\sqrt{3}\times\sqrt{3}$ SeTe heterostructures. 2021 , 134, 114854	3
532	Universality of stripe domain width change by an in-plane magnetic field. 2021 , 539, 168381	2
531	Magnetic imaging of various topological spin textures and their dynamics. 2021 , 539, 168332	3
530	The lifetime of micron scale topological chiral magnetic states with atomic resolution. 2021 , 269, 108136	2
529	Breaking the topological protection of target skyrmions by the excitation of spin wave modes under microwave magnetic field. 2022 , 541, 168521	0
528	Dipolar drift and collective instabilities of skyrmions in crossed nonuniform electric and magnetic fields in a chiral magnetic insulator. 2020 , 132, 56002	1
527	Skyrmions in antiferromagnets. 2021 , 333-345	
526	Conventional applications of skyrmions. 2021 , 367-391	
525	Skyrmion Dynamics in Concentric and Eccentric Nano-Ring Structures. 2021 , 1-1	0
524	Impact of the interplay of piezoelectric strain and current-induced heating on the field-like spin-orbit torque in perpendicularly magnetized Ta/Co ₂₀ Fe ₆₀ B ₂₀ /Ta/MgO film. 2021 , 118, 032401	0
523	Field-induced topological Hall effect and double-fan spin structure with a c-axis component in the metallic kagome antiferromagnetic compound YMn ₆ Sn ₆ . 2021 , 103,	17
522	Current-Induced Dynamics of Chiral Magnetic Structures: Creation, Motion, and Applications. 2021 , 147-181	2
521	KKRnano: Quantum Description of Skyrmions in Chiral B20 Magnets. 2021 , 191-205	

520	Robustness of the remanent magnetic domain pattern formation and associated stripe-bubble transitions in Co/Pt multilayers against field sequencing. 2021 , 11, 015339	2
519	Static properties of magnetic skyrmions. 2021 , 181-231	1
518	X-ray techniques to characterize nanomagnetism. 2021 , 199-303	
517	Synthesis of emerging 2D layered magnetic materials. 2021 , 13, 2157-2180	7
516	New Dimension in Magnetism and Superconductivity: 3D and Curvilinear Nanoarchitectures. 2021 , e2101758	21
515	Correlated gyrotropic modes of multi-skyrmion in elliptical ferromagnetic nanodisks. 2020 , 510, 166965	2
514	Aberration corrected spin polarized low energy electron microscope. 2020 , 216, 113017	3
513	Chiral Symmetry Breaking for Deterministic Switching of Perpendicular Magnetization by Spin-Orbit Torque. 2021 , 21, 515-521	18
512	Impact of growth conditions on the domain nucleation and domain wall propagation in Pt/Co/Pt stacks. 2021 , 54, 015002	2
511	High-sensitivity mapping of magnetic induction fields with nanometer-scale resolution: comparison of off-axis electron holography and pixelated differential phase contrast. 2021 , 54, 085001	1
510	Skyrmion-skyrmion interaction in a magnetic film. 2020 , 32, 415803	6
509	Length-scale independent skyrmion and meron Hall angles. 2020 , 33, 115801	1
508	Controlling the helicity of magnetic skyrmions by electrical field in frustrated magnets. 2020 , 22, 083032	4
507	Multiple-scattering approach for multi-spin chiral magnetic interactions: application to the one- and two-dimensional Rashba electron gas. 2020 , 22, 103003	8
506	Skyrmion pinball and directed motion on obstacle arrays. 2020 , 4, 085001	3
505	Magnon valley Hall effect in CrI ₃ -based van der Waals heterostructures. 2020 , 101,	10
504	Dynamics of ferromagnetic bimerons driven by spin currents and magnetic fields. 2020 , 102,	6
503	Modeling spin waves in noncollinear antiferromagnets: Spin-flop states, spin spirals, skyrmions, and antiskyrmions. 2020 , 102,	7

502	Solitary wave excitations of skyrmion strings in chiral magnets. 2020 , 102,	2
501	Position-dependent stability and lifetime of the skyrmion state in nickel-substituted Cu ₂ OSeO ₃ . 2020 , 102,	2
500	Entropic signatures of the skyrmion lattice phase in MnSi _{1-x} Al _x and Fe _{1-y} Co _y Si. 2020 , 102,	3
499	Magnetic Chirality Controlled by the Interlayer Exchange Interaction. 2020 , 124, 207203	10
498	Stacking-Dependent Spin Interactions in Pd/Fe Bilayers on Re(0001). 2020 , 125, 227205	0
497	Room-temperature observation and current control of skyrmions in Pt/Co/Os/Pt thin films. 2018 , 2,	36
496	Engineering Dzyaloshinskii-Moriya interaction in B20 thin-film chiral magnets. 2018 , 2,	7
495	Boundary twists, instabilities, and creation of skyrmions and antiskyrmions. 2018 , 2,	6
494	Single-spin sensing of domain-wall structure and dynamics in a thin-film skyrmion host. 2019 , 3,	16
493	Itinerancy-dependent noncollinear spin textures in SrFeO ₃ , CaFeO ₃ , and CaFeO ₃ /SrFeO ₃ heterostructures probed via resonant x-ray scattering. 2019 , 3,	12
492	Structural, magnetostatic, and magnetodynamic studies of Co/Mo-based uncompensated synthetic antiferromagnets. 2019 , 3,	1
491	Ferromagnetism in van der Waals compound MnSb _{1.8} Bi _{0.2} Te ₄ . 2020 , 4,	7
490	Material systems for FM-/AFM-coupled skyrmions in Co/Pt-based multilayers. 2020 , 4,	2
489	Energy-efficient generation of skyrmion phases in Co/Ni/Pt-based multilayers using Joule heating. 2020 , 4,	2
488	Skyrmion generation from irreversible fission of stripes in chiral multilayer films. 2020 , 4,	4
487	Interface phenomena in ferromagnet/TaO _x -based systems: Damping, perpendicular magnetic anisotropy, and Dzyaloshinskii-Moriya interaction. 2020 , 4,	1
486	Biskyrmion lattices in centrosymmetric magnetic films. 2019 , 1,	6
485	Multilayered vortices. 2019 , 1,	9

484	Theory of the skyrmion, meron, antiskyrmion, and antimeron in chiral magnets. 2019 , 1,	7
483	Tunable terahertz oscillation arising from Bloch-point dynamics in chiral magnets. 2020 , 2,	7
482	Prospecting chiral multisite interactions in prototypical magnetic systems. 2020 , 2,	8
481	Quantum damping of skyrmion crystal eigenmodes due to spontaneous quasiparticle decay. 2020 , 2,	6
480	Zero-point magnetic exchange interactions. 2020 , 2,	2
479	Direct observation of temperature dependent vortex dynamics in a La _{0.7} Sr _{0.3} MnO ₃ micromagnet. 2020 , 2,	3
478	Skyrmions in magnetic multilayers: chirality, electrical detection and current-induced motion. 2017 ,	1
477	Magnetic-Field-Induced Optical Second-Harmonic Generation Study of Co/Pt and Co/Ta Interfaces. 2020 , 130, 555-561	3
476	Topological magnetic excitations. 2020 , 132, 20003	5
475	Three-dimensional frequency- and phase-multiplexed magneto-optical microscopy. 2019 , 27, 33942-33953	3
474	Skyrmions-based magnetic racetrack memory. 2018 , 67, 137510	3
473	The effect of Dzyaloshinskii-Moriya interaction on direct and backward transition between magnetic states of Pt/Co/Ir/Co/Pr synthetic ferrimagnet. 2021 , 6, 167-178	
472	Ultrafast Dynamics of Domain Walls in Antiferromagnets and Ferrimagnets with Temperatures of Compensation of the Magnetic Moment and Angular Momentum (Brief Review). 2021 , 114, 215-226	1
471	Visibility and Apparent Size of Néel-Type Magnetic Skyrmions in Fresnel Defocus Images of Multilayer Films. 1-10	
470	Torque field and skyrmion motion by spin transfer torque in a quasi-2D interface in presence of strong spin-orbit interaction. 2021 , 130, 133903	1
469	Supertoroidal light pulses as electromagnetic skyrmions propagating in free space. 2021 , 12, 5891	14
468	Skyrmion Formation in Nanodisks Using Magnetic Force Microscopy Tip. 2021 , 11,	1
467	Wigner solids of domain wall skyrmions. 2021 , 12, 6006	0

466	Ferroelectric domain walls for nanotechnology. <i>Nature Reviews Materials</i> ,	73-3	15
465	Magnetic Topological Insulator Heterostructures: A Review. 2021 , e2102427		3
464	Ferroelectrically controlled topological magnetic phase in a Janus-magnet-based multiferroic heterostructure. 2021 , 3,		6
463	Hybridized magnon modes in the quenched skyrmion crystal. 2021 , 104,		2
462	The rectilinear motion of the individual asymmetrical skyrmion driven by temperature gradients. 2021 , 221, 117383		1
461	Multi-field control on magnetic skyrmions. 2018 , 67, 137507		
460	Magnetoelastic phenomena and mechanisms of magnetic skyrmion crystal. 2018 , 67, 136201		
459	Dzyaloshinsky-Moriya interaction in -(Zn, Cr)S(111) surface: First principle calculations. 2018 , 67, 137101		3
458	Skyrmions in magnetic thin film heterostructures. 2018 , 67, 131204		1
457	Topological Hall effect in ferromagnetic/non-ferromagnetic metals heterojunctions. 2018 , 67, 131202		
456	Overview and advances in skyrmionics. 2018 , 67, 131205		0
455	Magnetically ordered compounds of transition elements with nonmetals. 2019 , 28, 47-85		
454	Localized structures in magnetic systems without the center of inversion. 2020 , 190, 291-312		0
453	General Micromagnetic Theory and Applications. 1-43		3
452	Magnetic Chiral Solitons Stabilized by Oersted Field at a Thin-Film Nanocontact with Electric Current. 2019 , 64, 933		
451	Research progress of room temperature magnetic skyrmion and its application. 2020 , 69, 231201		1
450	Featureless quantum paramagnet with frustrated criticality and competing spiral magnetism on spin-1 honeycomb lattice magnet. 2020 , 2,		0
449	Kerr effect anomaly in magnetic topological insulator superlattices. 2020 , 31, 434001		2

448	Strain Modulation of Magnonic Frequency Comb by Magnon-Skyrmion Interaction in Ferromagnetic Materials. 2101245	1
447	Dislocation-Driven Relaxation Processes at the Conical to Helical Phase Transition in FeGe. 2021,	
446	Magnetic Bloch-point hopping in multilayer skyrmions and associated emergent electromagnetic signatures. 2021, 104,	0
445	Giant Topological Hall Effect in the Noncollinear Phase of Two-Dimensional Antiferromagnetic Topological Insulator MnBiTe. 2021, 33, 8343-8350	2
444	Investigation of Shear-Driven and Pressure-Driven Liquid Crystal Flow at Microscale: A Quantitative Approach for the Flow Measurement. 2020, 12,	1
443	Chiral Instability of the Homogeneous State of a Ferromagnetic Film on a Magnetic Substrate. 2020 , 131, 963-969	0
442	Operando control of skyrmion density in a Lorentz transmission electron microscope with current pulses. 2020, 128, 233902	2
441	Multifunctional oxides for topological magnetic textures by design. 2021, 54, 093001	2
440	Ultrahigh frequency spin-torque nano-oscillator based on bilayer-skyrmions. 2022, 543, 168641	0
439	ESpinS: A program for classical Monte-Carlo simulations of spin systems. 2022, 202, 110947	1
438	Tuning magnetism at the two-dimensional limit: a theoretical perspective. 2021,	6
437	Geometric Finite Elements. 2020, 3-49	1
436	Thermodynamical Properties of Nanoalloys. 2020, 193-223	
435	Tuning scalar spin chirality in ultrathin films of the kagome-lattice ferromagnet Fe ₃ Sn. 2021, 2,	0
434	Temperature-driven transition from skyrmion to bubble crystals in centrosymmetric itinerant magnets.	5
433	Scalable computational measures for entropic detection of latent relations and their applications to magnetic imaging. 2021, 16, 267-297	0
432	Influence of variation of tungsten layer thickness on interfacial Dzyaloshinskii-Moriya interaction in W/CoFeB/SiO ₂ heterostructures. 2021, 44, 1	
431	Skyrmion racetrack memory with an antidot. 2021, 54, 025001	1

430	Magnetic skyrmion states in cobalt nanodisk. 2020 , 512, 167041	
429	Electrical control of topological spin textures in two-dimensional multiferroics. 2021 ,	1
428	Formation, thermal stability and magnetic properties of new melt-spun Mn-Si-B glassy alloys. 2022 , 576, 121253	1
427	Velocity increase of skyrmion motion by constructing wedge nanotracks. 2022 , 546, 168877	0
426	Direct visualization of the three-dimensional shape of skyrmion strings in a noncentrosymmetric magnet. 2021 ,	5
425	Antiskyrmions and Bloch skyrmions in magnetic Dresselhaus metals. 2021 , 104,	0
424	Imprint from ferromagnetic skyrmions in an antiferromagnet via exchange bias. 2021 , 119, 192407	0
423	Imaging antiferromagnetic domain fluctuations and the effect of atomic scale disorder in a doped spin-orbit Mott insulator. 2021 , 7, eabi6468	0
422	Fluctuations and Pinning for Individually Manipulated Skyrmions. 2021 , 9,	0
421	Distorted 3Q state driven by topological-chiral magnetic interactions. 2021 , 104,	0
420	Weyl fermions promote collective magnetism. 2021 , 20, 1592-1593	
419	Elliptical skyrmion moving along a track without transverse speed. 2021 , 104,	2
418	Tunable magnetic skyrmions in ferrimagnetic Mn ₄ N. 2021 , 119, 192406	2
417	Crafting a Next-Generation Device Using Iron Oxide Thin Film: A Review. 2021 , 21, 7326-7352	3
416	Conformal Growth of Cr ₂ Te ₃ on Bi ₂ Te ₃ Nanodots with a Topological Hall Effect.	0
415	Dynamic transition of current-driven single-skyrmion motion in a room-temperature chiral-lattice magnet. 2021 , 12, 6797	4
414	Skyrmion-size dependence of the topological Hall effect: A real-space calculation. 2021 , 104,	2
413	Strain-mediated voltage-controlled magnetic double-vortex states in elliptical nanostructures. 2021 , 547, 168729	0

412	Configurable pixelated skyrmions on nanoscale magnetic grids. 2021 , 4,	1
411	Experimental evidence of a change of exchange anisotropy sign with temperature in Zn-substituted Cu ₂ OSeO ₃ . 2021 , 3,	0
410	Photonic Spin Lattices: Symmetry Constraints for Skyrmion and Meron Topologies.. 2021 , 127, 237403	8
409	Surface acoustic wave controlled skyrmion-based synapse devices. 2021 ,	1
408	Topological Spin Textures and Their Applications. 2021 , 1, 58-59	
407	From the spin eigenmodes of isolated Ni skyrmions to the magnonic bands of a skyrmionic crystal: a micromagnetic study as a function of the strength of both the interfacial Dzyaloshinskii-Moriya and the exchange constants. 2021 , 1-1	2
406	Introduction. 2021 , 1-24	
405	Generation of Optical Skyrmions with Tunable Topological Textures.	12
404	Lifetime of skyrmions in discrete systems with infinitesimal lattice constant. 2022 , 549, 168974	0
403	Effects of interlayer exchange on collapse mechanisms and stability of magnetic skyrmions. 2022 , 105,	
402	Quantitative behavior study of velocity, radius and topological charge on skyrmion/edge interaction dynamics on Co/Pt nanotrack. 2020 , 3, 50-65	
401	Observation of localized magnetic plasmon skyrmions.. 2022 , 13, 8	11
400	Skyrmionics in correlated oxides. 2021 , 46, 1053-1062	1
399	Blue Phase III: Topological Fluid of Skyrmions. 2022 , 12,	0
398	A review on magnetic and spintronic neurostimulation: challenges and prospects.. 2022 ,	1
397	Pinning and gyration dynamics of magnetic vortices revealed by correlative Lorentz and bright-field imaging. 2022 , 4,	
396	The 20-nm Skyrmion Generated at Room Temperature by Spin-Orbit Torques. 2022 , 39, 017501	2
395	Geometrically stabilized skyrmionic vortex in FeGe tetrahedral nanoparticles.. 2022 ,	2

394	Electric field effect on electron gas spins in two-dimensional magnets with strong spin-orbit coupling. 2022 , 105,	
393	Skyrmion Stabilization at the Domain Morphology Transition in Ferromagnet/Heavy Metal Heterostructures with Low Exchange Stiffness. 2101708	1
392	Assembling Diverse Skyrmionic Phases in Fe GeTe Monolayer.. 2022 , e2107779	2
391	Skyrmion Dynamics in the Presence of Deformation. 2022 , 17,	1
390	Ferroelectric Proximity Effect and Topological Hall Effect in SrRuO/BiFeO Multilayers.. 2022 ,	1
389	Experimental demonstration of skyrmionic magnetic tunnel junction at room temperature. 2022 ,	10
388	Defect modeling in skyrmionic ferromagnetic systems. 2022 , 10, 010702	0
387	Nonreciprocal dynamics of ferrimagnetic bimerons. 2022 , 105,	1
386	Generation and characterization of complex vector modes with digital micromirror devices: a tutorial. 2022 , 24, 034001	0
385	Vector vorticity of skyrmionic texture: An internal degree of freedom tunable by magnetic field. 2022 , 105,	0
384	Manipulation of Skyrmion Motion Dynamics for Logical Device Application Mediated by Inhomogeneous Magnetic Anisotropy.. 2022 , 12,	1
383	Zoology of Multiple-Q Spin Textures in a Centrosymmetric Tetragonal Magnet with Itinerant Electrons.. 2022 , e2105452	4
382	Spin order and fluctuations in the EuAl ₄ and EuGa ₄ topological antiferromagnets: A μ R study. 2022 , 105,	3
381	Micromagnetic prediction strain and current co-mediated spindynamics in skyrmion-based spin-torque nano-oscillator. 2022 , 55, 175003	0
380	Multiple Skyrmion Crystal Phases by Itinerant Frustration in Centrosymmetric Tetragonal Magnets. 2022 , 91,	2
379	Engineering antiferromagnetic skyrmions and antiskyrmions at metallic interfaces. 2022 , 105,	0
378	Generation and manipulation of skyrmions and other topological spin structures with rare metals. 1	0
377	Optical field and spin lattices with Bloch-type skyrmion and bimeron topologies.	1

376	Strong anisotropic Hall effect in single-crystalline CeMn ₂ Ge ₂ with helical spin order. 2022 , 105,	0
375	Observation of unconventional spin polarization induced spin orbit torque in L12-ordered antiferromagnetic Mn ₃ Pt thin films.	1
374	Interfacial skyrmion in magnetic thin films and its applications. 2022 , 551, 169107	0
373	Spin-Torque Oscillator Based on Magnetic Domain and Meron. 10,	
372	Cascadable direct current driven skyrmion logic inverter gate. 2022 , 105,	2
371	Controlled switching of the number of skyrmions in a magnetic nanodot by electric fields.. 2021 , e2107908	3
370	Hopfion dynamics in chiral magnets.. 2022 ,	1
369	Atomic-scale visualization of topological spin textures in the chiral magnet MnGe.. 2021 , 374, 1484-1487	1
368	Topological spintronics and magnetoelectronics.. 2022 , 21, 15-23	15
367	Spin excitation spectra in helimagnetic states: Proper-screw, cycloid, vortex-crystal, and hedgehog lattices. 2021 , 104,	4
366	Dynamic Rashba-Dresselhaus Effect.. 2021 , 127, 237601	1
365	Spin Wave Emission with Cone Shape in Magnetic Films with Strong Dzyaloshinskii-Moriya Interaction.	
364	Uncertainty propagation in quantitative magnetic force microscopy using a Monte-Carlo method. 2022 , 1-1	0
363	Magnetic Frustration in a Chiral Compound KCoPO_4 .	
362	The Drift of Magnetic Vortices in a Random Field of Anchoring Centers. 2022 , 1-1	
361	Spin Polarized Stm Imaging of Nanoscale Néel Skyrmions in an SrRu ₃ /SrRuO ₃ Perovskite Bilayer.	
360	Designing light-element materials with large effective spin-orbit coupling.. 2022 , 13, 919	3
359	Dynamic properties of a ferromagnetic skyrmion in an in-plane magnetic field. 2022 , 131, 073901	0

- 358 Local control of magnetic interface effects in chiral Ir|Co|Pt multilayers using Ga⁺ ion irradiation. **2022**, 105, 5
- 357 From Thermodynamics to Information: Landauer's Limit and Negentropy Principle Applied to Magnetic Skyrmions. **2022**, 10, 0
- 356 Ab initio calculation of the magnetic Gibbs free energy of materials using magnetically constrained supercells. **2022**, 105, 0
- 355 Forecasting the outcome of spintronic experiments with Neural Ordinary Differential Equations.. **2022**, 13, 1016 5
- 354 Mean-field description of skyrmion lattice in hexagonal frustrated antiferromagnets. **2022**, 105, 2
- 353 Critical behavior and strongly anisotropic interactions in PrMn₂Ge₂. **2022**, 120, 092402 0
- 352 Curvature-induced drift and deformation of magnetic skyrmions: Comparison of the ferromagnetic and antiferromagnetic cases. **2022**, 105, 2
- 351 Skyrmions-based logic gates in one single nanotrack completely reconstructed via chirality barrier. 1
- 350 Discretized evolution of solitons in the achiral stripe phase of a Fe/Gd thin film. **2022**, 105, 0
- 349 Square and rhombic lattices of magnetic skyrmions in a centrosymmetric binary compound.. **2022**, 13, 1472 6
- 348 Ultrafast time-evolution of chiral Néel magnetic domain walls probed by circular dichroism in x-ray resonant magnetic scattering.. **2022**, 13, 1412 1
- 347 Tunable spin-wave nonreciprocity in synthetic antiferromagnetic domain walls. **2022**, 105, 0
- 346 Electrical manipulation of skyrmions in a chiral magnet.. **2022**, 13, 1593 6
- 345 Topological Hall effect in SrRuO₄ Thin Films and Heterostructures.. **2022**, 0
- 344 Spin-orbit enabled all-electrical readout of chiral spin-textures.. **2022**, 13, 1576 0
- 343 Anisotropic Dzyaloshinskii-Moriya Interaction and Topological Magnetism in Two-Dimensional Magnets Protected by 4 2 Crystal Symmetry.. **2022**, 2
- 342 Building skyrmions through frustration.. **2022**, 21, 265-266 1
- 341 A van der Waals Interface Hosting Two Groups of Magnetic Skyrmions.. **2022**, e2110583 6

340	Topological structures in chiral media: Effects of confined geometry.. 2022 , 105, 034701	0
339	Review on magnonics with engineered spin textures.	4
338	Microscopic theory of light-induced ultrafast skyrmion excitation in transition metal films. 2022 , 8,	2
337	Challenges in identifying chiral spin textures via the topological Hall effect. 2022 , 3,	3
336	Magnetization statics and dynamics in (Ir/Co/Pt) ₆ multilayers with Dzyaloshinskii-Moriya interaction. 2022 , 12, 045007	1
335	Strain-Tunable Interfacial Dzyaloshinskii-Moriya Interaction and Spin-Hall Topological Hall Effect in Pt/TmFeO Heterostructures.. 2022 ,	0
334	Ferroelectric Control of Magnetic Skyrmions in Two-Dimensional van der Waals Heterostructures.. 2022 ,	3
333	Visualizing Emergent Magnetic Flux of Antiskyrmions in Mn 1.4 PtSn Magnet. 2112661	0
332	A room temperature polar magnetic metal. 2022 , 6,	2
331	Field-free approaches for deterministic spin-orbit torque switching of the perpendicular magnet.	6
330	Domain wall memory: Physics, materials, and devices. 2022 , 958, 1-35	6
329	Spin-lattice dynamics simulation of the Einstein-De Haas effect. 2022 , 209, 111359	0
328	Shock-wave-like emission of spin waves induced by the interfacial Dzyaloshinskii-Moriya interaction. 2022 , 553, 169264	
327	Writing skyrmion at a specific position in synthetic antiferromagnetic racetrack by voltage. 2022 , 554, 169144	1
326	Perspective on skyrmion spintronics. 2021 , 119, 250502	6
325	Defect-induced solitons in double Peierls chain model. 2021 , 79, 1163-1170	
324	Creation and annihilation of mobile fractional solitons in atomic chains.. 2021 ,	2
323	Tuning magnetic antiskyrmion stability in tetragonal inverse Heusler alloys. 2021 , 5,	

322	Single-layer ScI_2 : A paradigm for valley-related multiple Hall effect. 2021 , 119, 243102	0
321	Complex magnetic textures in Ni/Ir/Pt(111) ultrathin films. 2021 , 5,	0
320	Peripheral chiral spin textures and topological Hall effect in CoSi nanomagnets. 2021 , 5,	0
319	Spin dynamics in the skyrmion-host lacunar spinel GaV_4S_8 . 2021 , 104,	0
318	Spin-Orbit Coupling in 2D Semiconductors: A Theoretical Perspective.. 2021 , 12, 12256-12268	6
317	Detection of Topological Spin Textures via Nonlinear Magnetic Responses.. 2021 ,	1
316	Anomalous Hall effect in spatially inhomogeneous SrRuO_3 films. 2021 , 11, 125027	0
315	Ferrimagnetic spintronics.. 2022 , 21, 24-34	25
314	Dynamic transformation between a skyrmion string and a bimeron string in a layered frustrated system. 2021 , 104,	0
313	Unveiling the three-dimensional magnetic texture of skyrmion tubes.. 2021 ,	6
312	Tuning the magnetic anisotropy of ferromagnetic MnS_2 monolayers via electron occupation of Mn d orbitals. 2021 , 104,	0
311	Magnetic Force Microscopy in Physics and Biomedical Applications. 2022 , 8, 42	2
310	Thermal Evolution of Skyrmion Formation Mechanism in Chiral Multilayer Films. 2022 , 17,	0
309	Reconfigurable Logic Operations via Gate Controlled Skyrmion Motion in a Nanomagnetic Device.	2
308	Asymmetric transport in long-range interacting chiral spin chains. 2022 , 5,	
307	Tuning of the Dzyaloshinskii-Moriya interaction by He^+ ion irradiation. 2022 , 131, 143901	3
306	The Magnetic Genome of Two-Dimensional van der Waals Materials.. 2022 ,	10
305	Nano-engineering the evolution of skyrmion crystal in synthetic antiferromagnets. 2022 , 9, 021404	0

304	Data_Sheet_1.doc. 2020 ,	
303	Generalization of the Landau-Lifshitz-Gilbert equation by multi-body contributions to Gilbert damping for non-collinear magnets.. 2022 ,	0
302	Topologically Nontrivial Spin Textures in Thin Magnetic Films. 2022 , 123, 238-260	0
301	Micromagnetic Investigation of a Voltage-Controlled Skyrmionic Magnon Switch. 2022 , 17,	1
300	Lithium-Ion Battery Technology for Voltage Control of Perpendicular Magnetization. 2113118	2
299	Spin transfer nano-oscillator based on synthetic antiferromagnetic skyrmion pair assisted by perpendicular fixed magnetic field.	
298	An effective field theory of magneto-elasticity. 2022 , 12,	0
297	Controlled creation of quantum skyrmions. 2022 , 4,	0
296	Interplay between quantum anomalous Hall effect and magnetic skyrmions.. 2022 , 119, e2122952119	0
295	Structural transition of skyrmion quasiparticles under compression. 2022 , 105,	1
294	Effect of interlayer Dzyaloshinskii-Moriya interaction on spin structure in synthetic antiferromagnetic multilayers. 2022 , 105,	0
293	Magnetic skyrmion manipulation in CrTe ₂ /WTe ₂ 2D van der Waals heterostructure. 2022 , 120, 182402	1
292	Magnetic field-temperature phase diagrams for multiple- Q magnetic ordering: Exact steepest descent approach to long-range interacting spin systems. 2022 , 105,	0
291	Tunable skyrmion-edge interaction in magnetic multilayers by interlayer exchange coupling. 2022 , 12, 055210	0
290	Multiferroic materials based on transition-metal dichalcogenides: Potential platform for reversible control of Dzyaloshinskii-Moriya interaction and skyrmion via electric field. 2022 , 105,	3
289	Spin-orbit torque driven skyrmion motion under unconventional spin Hall effect.	0
288	How a skyrmion can appear both massive and massless. 2022 , 12,	
287	Effects of silicon composition on glass formation, crystallization behavior, phase evolution and magnetic properties of the melt-spun Mn-Si-B ribbons. 2022 , 912, 165270	

286	Dynamics of the collapse of a ferromagnetic skyrmion in a centrosymmetric lattice. 2022 , 105,	
285	Recent development of two-dimensional magnetic materials. 2022 ,	1
284	Goodenough-Kanamori-Anderson Rules in CrI ₃ /MoTe ₂ /CrI ₃ Van der Waals Heterostructure.	0
283	Deterministic Generation and Guided Motion of Magnetic Skyrmions by Focused He-Ion Irradiation.. 2022 ,	2
282	Annihilation dynamics of magnetic skyrmion lattice state under in-plane magnetic field and spontaneous recovery after field removal. 2022 , 105,	0
281	Emergent Multifunctional Magnetic Proximity in van der Waals Layered Heterostructures. 2200186	2
280	XPEEM and MFM Imaging of Ferroic Materials. 2200162	1
279	Magnetic Properties of a Chiral Compound KCoPO_4 .	
278	Topological charges of fullerenes.	
277	A ferromagnetic spin source grown by atomic layer deposition. 2022 , 120, 213503	1
276	Multifarious skyrmion phases on a trilayer triangular lattice. 2022 , 105,	1
275	Interaction and co-assembly of optical and topological solitons.	3
274	Rectangular and square skyrmion crystals on a centrosymmetric square lattice with easy-axis anisotropy. 2022 , 105,	1
273	Bifurcation of a topological skyrmion string. 2022 , 105,	0
272	Spiral Spin Liquid on a Honeycomb Lattice. 2022 , 128,	0
271	Topological Hall transport: materials, mechanisms and potential applications. 2022 , 100971	2
270	Nanoscale skyrmions on a square atomic lattice. 2022 , 105,	0
269	Progress and challenges in magnetic skyrmionics.	0

268	Domain wall velocity asymmetries driven by saturation magnetization gradients without a Dzyaloshinskii-Moriya interaction. 2022 , 558, 169500	0
267	Uncovering the S=12 Kagome Ferromagnet within a Family of MetalOrganic Frameworks.	1
266	Skyrmion crystal with integer and fractional skyrmion numbers in a nonsymmorphic lattice structure with the screw axis. 2022 , 105,	0
265	The Mass-Lumped Midpoint Scheme for Computational Micromagnetics: Newton Linearization and Application to Magnetic Skyrmion Dynamics. 2022 ,	
264	Skyrmion pinning energetics in thin film systems. 2022 , 13,	2
263	Stabilizing magnetic skyrmions in constricted nanowires. 2022 , 12,	1
262	Collective skyrmion motion under the influence of an additional interfacial spin-transfer torque. 2022 , 12,	1
261	Topological Hall effect associated with spin reorientation transition in tetragonal Mn _{1.9} Co _{0.1} Sb ferrimagnet. 2022 , 165919	0
260	Site-specific electronic and magnetic excitations of the skyrmion material Cu ₂ OSeO ₃ . 2022 , 5,	1
259	Programmable Skyrmion Logic Gates Based on Skyrmion Tunneling. 2022 , 17,	0
258	Soliton motion in skyrmion chains: Stabilization and guidance by nanoengineered pinning. 2022 , 105,	1
257	Machine learning techniques to construct detailed phase diagrams for skyrmion systems. 2022 , 105,	1
256	Flexoresponses of Synthetic Antiferromagnetic Systems Hosting Skyrmions. 2022 , 128,	1
255	Anisotropic Dzyaloshinskii-Moriya interaction protected by D _{2d} crystal symmetry in two-dimensional ternary compounds. 2022 , 8,	1
254	Band filling effects on the emergence of magnetic skyrmions: Pd/Fe and Pd/Co bilayers on Ir(111). 2022 , 105,	0
253	Observation of Localized Magnetic Plasmon Skyrmion Utilizing Stability and Interference Effect.	
252	Tuning magnetic anisotropy and Dzyaloshinskii-Moriya interaction via interface engineering in nonisostructural SrCuO ₂ /SrRuO ₃ heterostructures. 2022 , 105,	
251	Spin polarized STM imaging of nanoscale Nél skyrmions in an SrIrO ₃ /SrRuO ₃ perovskite bilayer. 2022 , 599, 153766	

- 250 Topological Phase Transitions and Critical Phenomena Associated with Unwinding of Spin Crystals by High Magnetic Fields. **2022**, 91, 0
- 249 Commensuration effects on skyrmion Hall angle and drag for manipulation of skyrmions on two-dimensional periodic substrates. **2022**, 105, 0
- 248 Design of a Radial Vortex-Based Spin-Torque Nano-Oscillator in a Strain-Mediated Multiferroic Nanostructure for BFSK/BASK Applications. **2022**, 13, 1056
- 247 Emergent Phenomena in Magnetic Two-Dimensional Materials and van der Waals Heterostructures. 2
- 246 Positional Stability of Skyrmions in a Racetrack Memory with Notched Geometry. **2022**, 17, 3
- 245 Experimental observation of the interlayer perpendicular standing spin wave mode with low damping in skyrmion-hosting [Pt/Co/Ta]₁₀ multilayer.
- 244 Nonzero Skyrmion Hall Effect in Topologically Trivial Structures. **2022**, 17, 0
- 243 Voltage-Controlled Skyrmionic Interconnect with Multiple Magnetic Information Carriers. **2022**, 14, 30420-30434
- 242 Origin of circular dichroism in resonant elastic x-ray scattering from magnetic and polar chiral structures. **2022**, 106, 0
- 241 Incommensurate magnetic orders and topological Hall effect in the square-net centrosymmetric EuGa₂Al₂ system. **2022**, 6, 0
- 240 Interfacial potential gradient modulates Dzyaloshinskii-Moriya interaction in Pt/Co/metal multilayers. **2022**, 6, 0
- 239 High power density soft x-ray GaAs photodiodes with tailored spectral response. **2022**, 37, 085024
- 238 Magnetic Vortex Core String Gyrotropic Oscillations in Thick Cylindrical Dots. **2022**, 2, 239-250
- 237 Bloch point dynamics in exchange-spring heterostructures. **2022**, 10, 071103 1
- 236 Current-driven dynamics and ratchet effect of skyrmion bubbles in a ferrimagnetic insulator. 7
- 235 A micromagnetic theory of skyrmion lifetime in ultrathin ferromagnetic films. **2022**, 119,
- 234 Spin canting of Ni/CoO/Fe films grown on curved MgO(0 0 1) substrate. **2022**, 561, 169668
- 233 Spin-Orbit Torque (SOT) Materials and Devices. **2022**, 113-138

- 232 Realization of the skyrmionic logic gates and diodes in the same racetrack with enhanced and modified edges. **2022**, 121, 042402 0
- 231 Mechanical Acceleration and Control of the Thermal Motion of a Magnetic Skyrmion. **2022**, 18, 0 0
- 230 Evolution of Skyrmion Lattice Order in the van der Waals Ferromagnet Fe₃GeTe₂. **2022**, 28, 2326-2327 0
- 229 Electric current and magnetization distributionsSelf-organization features in a magnetoresistive film nanoelement under the influence of an external magnetic field. 0
- 228 Simulation-Trained Machine Learning Models for Lorentz Microscopy. **2022**, 28, 2980-2982 0
- 227 Artificial skyrmion in magnetic multilayers. **2022**, 132, 043906 0
- 226 Large Dzyaloshinskii-Moriya interaction and field-free topological chiral spin states in two-dimensional alkali-based chromium chalcogenides. **2022**, 106, 1
- 225 Spherical model with DzyaloshinskiiMoriya interactions. **2022**, 2022, 073106 0
- 224 Advances in Imaging Magnetic Domains in Functional Materials using Lorentz microscopy. **2022**, 28, 2570-2571 0
- 223 Inhibition of Skyrmion Hall Effect by a Stripe Domain Wall. **2022**, 18, 0
- 222 Nature of interfacial Dzyaloshinskii-Moriya interactions in graphene/Co/Pt(111) multilayer heterostructures. **2022**, 106, 0
- 221 Spin-momentum locking and quantum anomalous Hall effect in d+id-density wave ordered pseudo gap phase of Bi₂Te₂. **2022**, 0 0
- 220 Mechanism of Topology Change of Flat Magnetic Structures. **2022**, 24, 1104 0
- 219 Synergy of Spin-Orbit Torque and Built-In Field in Magnetic Tunnel Junctions with Tilted Magnetic Anisotropy: Toward Tunable and Reliable Spintronic Neurons. 2203006 2
- 218 Magnetic Skyrmionic Bubbles at Room Temperature and Sign Reversal of the Topological Hall Effect in a Layered Ferromagnet Cr_{0.87}Te. 2
- 217 Magnetic skyrmions with unconventional helicity polarization in a van der Waals ferromagnet. 2204163 1
- 216 Skyrmions in synthetic antiferromagnets and their nucleation via electrical current and ultra-fast laser illumination. **2022**, 13, 3
- 215 Antiperovskite Magnetic Materials with 2 p Light Elements for Future Practical Applications. 2200515 0

- 214 Formation and Control of Zero-Field Antiskyrmions in Confining Geometries. 2202950
- 213 Magnetic properties of phases with Au₄Al-type structure in the Cr[Cu, Fe, Pd]NiBi quaternary systems. **2022**, 123511
- 212 Elliptical skyrmions: Theory and nucleation by a magnetic tip in an antiskyrmion-hosting material. **2022**, 169866
- 211 Interfacial phase frustration stabilizes unconventional skyrmion crystals. **2022**, 7,
- 210 Magnetic properties of KCoPO₄ compound with a chiral polar crystal structure. **2022**, 562, 169794
- 209 Electrical Observation of Soft-magnetic Skyrmions in the Sandwich Structure Including Topological Insulator with Self-assembled Ferromagnetic Atomic Layers. **2022**, 65, 405-410 ○
- 208 Fundamental physics and applications of skyrmions: A review. **2022**, 563, 169905 1
- 207 Ultrafast time-evolution and recovery of chiral Néel magnetic domain walls probed by x-ray resonant scattering.. **2022**, ○
- 206 Non-equilibrium heating path for the laser-induced nucleation of metastable skyrmion lattices. ○
- 205 Emergent Electromagnetic Fields Induced by Magnon Current in Skyrmion. ○
- 204 Boundary-free spin torque nano-oscillators based on ferrimagnetic skyrmions. **2022**, 121, 092403 ○
- 203 Nucleation and manipulation of single skyrmions using spin-polarized currents in antiferromagnetic skyrmion-based racetrack memories. **2022**, 12, ○
- 202 Magnetic-Field-Assisted Diffusion Motion of Magnetic Skyrmions. ○
- 201 Circular stripe domains and cone state vortices in disk-shaped exchange coupled magnetic heterostructures. **2022**, 55, 445003 ○
- 200 Skyrmion Dynamics in a Double-Disk Geometry under an Electric Current. **2022**, 12, 3086 1
- 199 Modified Spin Textures in a 3D Magnetic Lattice. 2200213 ○
- 198 Origin of metamagnetism in skyrmion host Cu₂SeO₃. **2022**, 12, 1
- 197 Electrical Detection of Magnetic Skyrmions in a Magnetic Tunnel Junction. 2200570 ○

- 196 Topological Melting of the Metastable Skyrmion Lattice in the Chiral Magnet $\text{Co}_9\text{Zn}_9\text{Mn}_2$. 2200066 0
- 195 Strain-Driven Zero-Field Near-10 nm Skyrmions in Two-Dimensional van der Waals Heterostructures. **2022**, 22, 7706-7713 1
- 194 Statics and dynamics of skyrmions interacting with disorder and nanostructures. **2022**, 94, 5
- 193 Skyrmion helicity: Quantization and quantum tunneling effects. **2022**, 106, 0
- 192 Particle-like skyrmions interacting with a funnel obstacle. **2022**, 106, 1
- 191 Magnetic Interactions of the Centrosymmetric Skyrmion Material Gd_2PdSi_3 . **2022**, 129, 1
- 190 Magnetic Scattering with Polarised Soft X-rays. 0
- 189 Distinguishing the Two-Component Anomalous Hall Effect from the Topological Hall Effect. 1
- 188 Characteristics and Applications of Current-Driven Magnetic Skyrmion Strings. **2022**, 39, 108502 0
- 187 Higher-order modulations in the skyrmion lattice phase of Cu_2OSeO_3 . **2022**, 106, 0
- 186 High-Power-Density Energy-Harvesting Devices Based on the Anomalous Nernst Effect of Co/Pt Magnetic Multilayers. **2022**, 5, 11835-11843 0
- 185 Tuning the interfacial Dzyaloshinskii-Moriya interaction in perpendicularly magnetized CoFeB system. **2022**, 55, 445004 0
- 184 Solution to a Two-Dimensional Electrostatic Problem for an Oblique Magnetoresistive Element. **2022**, 86, 1070-1073 0
- 183 Observation of robust zero-energy state and enhanced superconducting gap in a trilayer heterostructure of $\text{MnTe}/\text{Bi}_2\text{Te}_3/\text{Fe}(\text{Te}, \text{Se})$. **2022**, 8, 1
- 182 Thermal Hysteresis and Ordering Behavior of Magnetic Skyrmion Lattices. 0
- 181 Clogging, Diode and Collective Effects of Skyrmions in Funnel Geometries. 0
- 180 Real-space determination of the isolated magnetic skyrmion deformation under electric current flow. **2022**, 119, 0
- 179 Emergence of Ferromagnetic Metal Surface State in a Nonmagnetic Semiconductor FeSi and Its Spin-orbitronic Functionality. **2022**, 61, 671-678 0

- 178 Chiral surface spin textures in Cu₂OSeO₃ unveiled by soft x-ray scattering in specular reflection geometry. ○
- 177 Skyrmion motion and partitioning of domain wall velocity driven by repulsive interactions. **2022**, 5, ○
- 176 Compositional gradient induced enhancement of Dzyaloshinskii-Moriya interaction in Pt/Co/Ta heterostructures modulated by Pt/Co alloy intralayers. **2022**, 241, 118383 ○
- 175 High-temperature magnetic skyrmions in BiCrX₃ (X = Se and Te) monolayers. ○
- 174 Curvilinear Magnetic Shells. **2022**, 83-161 ○
- 173 Synthesis of stable ϵ -phase MnS_{1-x}Sex nanoflakes with inversion symmetry breaking. ○
- 172 Spin dynamics in patterned magnetic multilayers with perpendicular magnetic anisotropy. **2022**, 1-51 ○
- 171 Activation Energy and Mechanisms for Skyrmion Collapse in Synthetic Antiferromagnets. **2022**, 116, 240-245 ○
- 170 Alternative understanding of the skyrmion Hall effect based on one-dimensional domain wall motion. ○
- 169 Near-room temperature topological Hall effect at spin reorientations in sputtered NdCo_{5-x}Cux thin film. **2022**, 121, 182404 ○
- 168 Magnetic phase diagram and vanishing topological Hall effect in the chiral antiferromagnet Co_{2-x}PdxMo₃N. 1
- 167 Reversal of Anomalous Hall Effect and Octahedral Tilting in SrRuO₃ Thin Films via Hydrogen Spillover. 2207246 ○
- 166 Room-Temperature Magnetic Skyrmions and Large Topological Hall Effect in Chromium Telluride Engineered by Self-Intercalation. 2205967 ○
- 165 Skyrmions Under Control μ FIB Irradiation as a Versatile Tool for Skyrmion Circuits. 2207321 ○
- 164 Skyrmionic spin structures in layered Fe₅GeTe₂ up to room temperature. **2022**, 5, 2
- 163 Hybrid Bloch-Néel spiral states in Mn_{1.4}PtSn probed by resonant soft x-ray scattering. **2022**, 106, ○
- 162 Magnetic Field Magnitudes Needed for Skyrmion Generation in a General Perpendicularly Magnetized Film. ○
- 161 Magnus Induced Diode Effect for Skyrmions in Channels with Periodic Potentials. ○

- 160 Topological phase transitions and Berry-phase hysteresis in exchange-coupled nanomagnets. **2022**, 106, ○
- 159 Chiral Spin Textures for Next-Generation Memory and Unconventional Computing. ○
- 158 Flexible engineering of circular dichroism enabled by chiral surface lattice resonances. ○
- 157 Two-channel anomalous Hall effect originating from the intermixing in Mn₂CoAl/Pd thin films. **2022**, 106, ○
- 156 Tuning of topological properties in the strongly correlated antiferromagnet Mn₃Sn via Fe doping. **2022**, 106, ○
- 155 Exponential Temperature Effects on Skyrmion-Skyrmion Interaction. **2022**, 18, ○
- 154 Skyrmion Dynamics in a Double-Disk Geometry under an Electric Current: Part Two. **2022**, 12, 3793 ○
- 153 Review Magnetic Skyrmions in Chiral Ferromagnets: Electrical Transport Properties and Device Applications. ○
- 152 Reversible Transformation between Isolated Skyrmions and Bimerons. ○
- 151 Designing strong and tunable magnetoelectric coupling in 2D trilayer heterostructures. **2023**, 10, 015007 1
- 150 Elimination of the skyrmion Hall effect by tuning perpendicular magnetic anisotropy and spin polarization angle. **2022**, 456, 128497 ○
- 149 Ultralow effective Gilbert damping and induced orbital moment in strain-engineered FeGe films with Curie temperature exceeding room temperature. **2022**, 564, 170053 ○
- 148 Brownian reservoir computing realized using geometrically confined skyrmion dynamics. **2022**, 13, 4
- 147 Small-angle neutron scattering in the fully polarized phase of noncollinear magnets with interfacial-like Dzyaloshinskii-Moriya interaction. **2022**, 106, ○
- 146 Three-dimensional skyrmionic cocoons in magnetic multilayers. **2022**, 13, ○
- 145 Phase field modeling of topological magnetic structures in ferromagnetic materials: domain wall, vortex, and skyrmion. ○
- 144 Progress on elliptical magnetic skyrmions. ○
- 143 Micromagnetic Study of the Effect of Dzyaloshinskii-Moriya Interaction on Magnetization Reversal in Magnetic Nanodots of Different Shape. **2022**, 170195 ○

- 142 Double magnetic tunnel junction two bit memory and nonvolatile logic for in situ computing. **2022**, 105635 ○
- 141 Room temperature skyrmions in symmetric multilayers. **2022**, 121, 192403 ○
- 140 Magnetic field-induced nontrivial spin chirality and large topological Hall effect in kagome magnet ScMn6Sn6. **2022**, 121, 202401 ○
- 139 Skyrmion nucleation on the surface of a topological insulator. **2022**, 4, ○
- 138 Dynamics of entangled domain walls in the PXP model under driving: Crossover from prethermalization to localization. **2022**, 106, ○
- 137 Impact of curvature-induced Dzyaloshinskii-Moriya interaction on magnetic vortex texture in spherical caps. **2022**, 48, 956-961 ○
- 136 Manipulation of Magnetic Skyrmion Density in Continuous Ir/Co/Pt Multilayers. **2022**, 13, 1911 ○
- 135 Noble-Metal Free Spintronic System with Proximity-Enhanced Ferromagnetic Topological Surface State of FeSi Above Room Temperature. 2206801 ○
- 134 Oxide magnonics: Spin waves in functional magnetic oxides. **2022**, 9, 041312 ○
- 133 Single Skyrmion Generation via a Vertical Nanocontact in a 2D Magnet-Based Heterostructure. ○
- 132 Combined Magnetic Imaging and Anisotropic Magnetoresistance Detection of Dipolar Skyrmions. 2207770 ○
- 131 Spontaneous Topological States and Their Mutual Transformations in a Rare-Earth Ferrimagnet. 2205574 ○
- 130 Photonic Pseudospin Skyrmion in Momentum Space. **2022**, 1-6 ○
- 129 Two-dimensional magnetic Janus monolayers and their van der Waals heterostructures: A review on recent progress. ○
- 128 Antiferromagnetic skyrmion-based high speed diode. ○
- 127 Magnetic and crystal structure of the antiferromagnetic skyrmion candidate GdSb_{0.71}Te_{1.22}. **2023**, 936, 168348 ○
- 126 Skyrmion-Magnetic Tunnel Junction Synapse With Long-Term and Short-Term Plasticity for Neuromorphic Computing. **2022**, 1-8 ○
- 125 An influence of the Dzyaloshinskii-Moriya and dipole-dipole interactions on the spontaneous magnetization reversal time of finite-length Co chains on Pt(664) surface. **2022**, 1-5 ○

124	Current-Induced Helicity Switching of Frustrated Skyrmions on a Square-Grid Obstacle Pattern. 2022,	0
123	Single-domain stripe order in a high-temperature superconductor. 2022, 5,	1
122	Emergence of zero-field non-synthetic single and interchained antiferromagnetic skyrmions in thin films. 2022, 13,	0
121	Magnetic Skyrmion Lattices in a Novel 2D-Twisted Bilayer Magnet. 2206923	0
120	Mixed-Type Skyrmions in Symmetric Pt/Co/Pt Multilayers at Room Temperature. 2022, 15, 8272	0
119	Magnetic anisotropy, exchange coupling and DzyaloshinskiiMoriya interaction of two-dimensional magnets. 2023, 18,	2
118	Magnetic triangular bubble lattices in bismuth-doped yttrium iron garnet.	0
117	Anisotropic Vortex Squeezing in Synthetic Rashba Superconductors: A Manifestation of Lifshitz Invariants. 2022, 12,	0
116	Controllable Itinerant Ferromagnetism in Weakly Correlated 5d SrIrO3. 11946-11954	0
115	A skyrmion helicity-based multistate memory in synthetic antiferromagnets. 2022, 132, 233903	0
114	Structural Chirality of Polar Skyrmions Probed by Resonant Elastic X-Ray Scattering. 2022, 129,	0
113	Thermally activated transitions between micromagnetic states. 2022, 133617	0
112	Spin-orbit proximity effect in Bi/Co multilayer: The role of interface scattering. 2022, 170312	0
111	Intrinsic anomalous Hall conductivity and real space Berry curvature induced topological Hall effect in Ni2MnGa magnetic shape memory alloy. 2023, 56, 044004	0
110	Designer meron lattice on the surface of a topological insulator. 2022, 106,	1
109	Imaging current control of magnetization in Fe3GeTe2 with a widefield nitrogen-vacancy microscope.	0
108	Science and technology of 3D magnetic nanostructures. 2022, 10, 120401	0
107	Spin structure and dynamics of the topological semimetal Co3Sn2-xInxS2. 2022, 7,	0

- 106 Manipulation of ferromagnetism in intrinsic two-dimensional magnetic and nonmagnetic materials. **2022**, 5, 4212-4273 ○
- 105 Topological metasurface: From passive toward active and beyond. 1
- 104 Formation of the skyrmionic polaron by Rashba and Dresselhaus spin-orbit coupling. **2022**, 106, ○
- 103 Disorder-Induced Topological State Transition in the Optical Skyrmion Family. **2022**, 129, ○
- 102 Emergent Magnetomultipoles and Nonlinear Responses of a Magnetic Hopfion. **2022**, 129, ○
- 101 Interaction between magnon and skyrmion: Toward quantum magnonics. **2022**, 132, 210702 ○
- 100 Motion of a magnetic skyrmionium driven by acoustic wave. **2022**, 121, 242406 ○
- 99 Unusual Magnetic Hysteresis and Transition between Vortex and Double Pole States Arising from Interlayer Coupling in Diamond-Shaped Nanostructures. **2022**, 14, 54961-54968 ○
- 98 Strain-Enabled Control of Chiral Magnetic Structures in MnSeTe Monolayer. **2023**, 40, 017501 ○
- 97 Observation of localized acoustic skyrmions. **2023**, 122, 022201 ○
- 96 Topological transformation and free-space transport of photonic hopfions. **2023**, 5, 3
- 95 Skyrmion state stabilized by short-range interactions in centrosymmetric materials. ○
- 94 Rich topological spin textures in single-phase and core-shell magnetic nanodisks. **2023**, 107, ○
- 93 Skyrmion-based reconfigurable logic gates and diodes in a racetrack with hard magnetic material and a notch. **2023**, 170387 ○
- 92 Structural-functional unit ordering for high-performance electron-correlated materials. ○
- 91 Metastability of photonic spin meron lattices in the presence of perturbed spin-orbit coupling. **2023**, 31, 2225 ○
- 90 Generation of magnetic skyrmions in two-dimensional magnets via interfacial proximity. **2023**, 107, ○
- 89 Ferrimagnets for spintronic devices: From materials to applications. **2023**, 10, 011301 ○

- 88 Multiple Topological Magnetism in van der Waals Heterostructure of MnTe₂/ZrS₂. **2023**, 23, 312-318 ○
- 87 Optical Creation of Skyrmions by Spin Reorientation Transition in Ferrimagnetic CoHo Alloys. **2023**, 15, 5608-5619 ○
- 86 Thickness-Dependent Topological Hall Effect in Two-Dimensional Cr₅Si₃ Nanosheets with Non-Collinear Magnetic Phase. 2210755 ○
- 85 Low-field magnetic anomalies in single crystals of the A-type square-lattice antiferromagnet EuGa₄. **2023**, 107, ○
- 84 A perspective on physical reservoir computing with nanomagnetic devices. **2023**, 122, 040501 ○
- 83 Three-dimensional topological magnetic monopoles and their interactions in a ferromagnetic meta-lattice. ○
- 82 Skyrmion based 3D low complex runtime reconfigurable architecture design methodology of universal logic gate. **2023**, 34, 13LT01 ○
- 81 Polyhexatic and polycrystalline states of skyrmion lattices. **2023**, 107, ○
- 80 Device geometry dependent deterministic skyrmion generation from a skyrmionium. ○
- 79 Current-Induced Reversible Split of Elliptically Distorted Skyrmions in Geometrically Confined Fe₃Sn₂ Nanotrack. 2206106 ○
- 78 Towards two-dimensional van der Waals ferroelectrics. 2
- 77 Triple-meron crystal in high-spin Kitaev magnets. **2023**, 25, 023006 ○
- 76 Magnetic and transport properties of chiral antiferromagnetic Co₂Pd_xMo₃N thin films. **2023**, 13, 025138 ○
- 75 Observation of phononic skyrmions based on hybrid spin of elastic waves. **2023**, 9, ○
- 74 Emergence of Sizeable Interfacial Dzyaloshinskii-Moriya Interaction at Cobalt/Fullerene Interface. **2023**, 19, ○
- 73 Surface state mediated ferromagnetism in Mn_{0.14}Bi_{1.86}Te₃ thin films. **2023**, 7, ○
- 72 Electrical characterization of the azimuthal anisotropy of (Ni_xCo_{1-x})B-based ferromagnetic nanotubes. **2023**, 170715 ○
- 71 Realization and Current-Driven Dynamics of Fractional Hopfions and Their Ensembles in a Helimagnet FeGe. ○

- 70 Strain-controllable high Curie temperature and magnetic anisotropy in two-dimensional Janus 2H-VXY (X, Y = S, Se and Te, X ≠ Y). **2023**, 177, 207537 ○
- 69 Formation and switching of chiral magnetic field textures in three-dimensional gyroid nanostructures. **2023**, 249, 118802 ○
- 68 The influence of adatom diffusion on the formation of skyrmion lattice in sub-monolayer Fe on Ir(111). **2023**, 212, 112071 ○
- 67 Manipulation of topological spin textures in centrosymmetric rare-earth magnets. **2023**, 156, 254-260 ○
- 66 Testing the data framework for an AI algorithm in preparation for high data rate X-ray facilities. **2022**, ○
- 65 Chiral broken symmetry descendants of the kagome lattice chiral spin liquid. **2023**, 107, ○
- 64 A Material View on Extrinsic Magnetic Domain Wall Pinning in Cylindrical CoNi Nanowires. **2023**, 127, 2387-2397 ○
- 63 Magnetic skyrmions in FePt square-based nanoparticles around room-temperature. **2023**, 56, 085002 ○
- 62 Driving skyrmions with low threshold current density in Pt/CoFeB thin film. **2023**, 98, 035819 ○
- 61 Voltage-Controlled Dzyaloshinskii-Moriya Interaction Torque Switching of Perpendicular Magnetization. **2023**, 130, 1 ○
- 60 Constructing coarse-grained skyrmion potentials from experimental data with Iterative Boltzmann Inversion. **2023**, 6, ○
- 59 Brillouin light scattering from quantized spin waves in nanowires with antisymmetric exchange interactions. **2023**, 107, ○
- 58 Topological spin textures in 1T -phase Janus magnets: Interplay between Dzyaloshinskii-Moriya interaction, magnetic frustration, and isotropic higher-order interactions. **2023**, 107, 1
- 57 Magnetic skyrmions: Basic properties and potential applications. **2023**, 2, 260-289 ○
- 56 Multiple Nonvolatile Skyrmion States in Nanostructured Synthetic Antiferromagnetic Multilayers. **2023**, 19, ○
- 55 Topological phenomena at the oxide interfaces. **2023**, 3, 012002 ○
- 54 Non-Hermitian control of confined optical skyrmions in microcavities formed by photonic spin-orbit coupling. **2023**, 11, 610 ○
- 53 Aging in the transport on the corrugated ratchet potential. **2023**, 2023, 023301 ○

- 52 Widely-sweeping magnetic field-temperature phase diagrams for skyrmion-hosting centrosymmetric tetragonal magnets. **2023**, 571, 170547 ○
- 51 Atomically constructing a van der Waals heterostructure of CrTe₂/Bi₂Te₃ by molecular beam epitaxy. **2023**, 2, 021001 ○
- 50 Antiferromagnetic topological magnetism in synthetic van der Waals antiferromagnets. **2023**, 107, ○
- 49 First principles study of the electronic structure of the Ni₂MnIn/InAs and Ti₂MnIn/InSb. **2023**, 7, ○
- 48 Structure-property relationship of reversible magnetic chirality tuning. **2023**, 107, ○
- 47 Control of Skyrmion Chirality in Ta/FeCoB/Ta. **2023**, 19, ○
- 46 Spintronic leaky-integrate-fire spiking neurons with self-reset and winner-takes-all for neuromorphic computing. **2023**, 14, ○
- 45 Skyrmion based majority logic gate by voltage controlled magnetic anisotropy in a nanomagnetic device. **2023**, 34, 225202 ○
- 44 Spin-Manipulated Photonic Skyrmion-Pair for Pico-Metric Displacement Sensing. 2205249 ○
- 43 Programmable skyrmion-based logic gates in a single nanotrack. **2023**, 107, ○
- 42 Topological skyrmion phases of matter. **2023**, 35, 184001 ○
- 41 Synthetic spin dynamics with optical skyrmions. ○
- 40 Controlling the Skyrmion Density and Size for Quantized Convolutional Neural Networks. ○
- 39 Modulation of skyrmionic magnetic textures in two-dimensional vdW materials and their heterostructures. **2023**, 26, 106311 ○
- 38 Hole doping induced ferromagnetism and Dzyaloshinskii-Moriya interaction in the two-dimensional group-IVA oxides. **2023**, 35, 204003 ○
- 37 Anomalous electrical transport and magnetic skyrmions in Mn-tuned Co₉Zn₉Mn₂ single crystals. **2023**, 107, ○
- 36 Lifetime, collapse, and escape paths for hopfions in bulk magnets with competing exchange interactions. **2023**, 107, ○
- 35 Universal Quantum Computation Based on Nanoscale Skyrmion Helicity Qubits in Frustrated Magnets. **2023**, 130, ○

- 34 Quantifying symmetric exchange in ultrathin ferromagnetic films with chirality. **2023**, 107, ○
- 33 Local Manipulation of Skyrmion Nucleation in Microscale Areas of a Thin Film with Nitrogen-Ion Implantation. ○
- 32 A spectroscopic-imaging scanning tunneling microscope in vector magnetic field. **2023**, 94, 033704 ○
- 31 Coexistence and coupling of ferroelectricity and magnetism in an oxide two-dimensional electron gas. ○
- 30 Visualizing the Effect of Oxidation on Magnetic Domain Behavior of Nanoscale Fe₃GeTe₂ for Applications in Spintronics. **2023**, 6, 4390-4397 ○
- 29 Strain-tunable skyrmions in two-dimensional monolayer Janus magnets. **2023**, 15, 6830-6837 ○
- 28 Chip-Integrated Vortex Manipulation. ○
- 27 Magnetization dynamics with time-dependent spin-density functional theory: Significance of exchange-correlation torques. **2023**, 107, ○
- 26 Chirality coupling in topological magnetic textures with multiple magnetochiral parameters. **2023**, 14, ○
- 25 Carrier and thickness mediated ferromagnetism in chiral magnet Mn_{1/3}TaS₂ nanoflakes. **2023**, 133, 113902 ○
- 24 Correlated gyrotropic motion of skyrmion clusters in ultrathin ferromagnetic nanodisks. **2023**, 572, 170649 ○
- 23 Magnetic nanostructures. **2022**, ○
- 22 Controlling magnetic skyrmion nucleation with Ga⁺ ion irradiation. **2023**, 107, ○
- 21 Quantum oscillations in the centrosymmetric skyrmion-hosting magnet GdRu₂Si₂. **2023**, 107, ○
- 20 Driven magnetic skyrmions in a narrow channel. ○
- 19 Non-Hermitian dynamics for a two-spin system with PT symmetry. **2023**, 107, ○
- 18 Modulation of Spin-Orbit Torque and Large Enhancement of Perpendicular Magnetic Anisotropy in W/Co₂₀Fe₆₀B₂₀. **2023**, 19, ○
- 17 Topological dynamical quantum phase transition in a quantum skyrmion phase. **2023**, 107, ○

- 16 Triple- Q partial magnetic orders induced by quadrupolar interactions: Triforce order scenario for UNi4B. **2023**, 107,
- 15 Skyrmions in blue phases of chiral liquid crystals. 1-20
- 14 Hybrid magnonics in hybrid perovskite antiferromagnets. **2023**, 14,
- 13 Systematic Control of Ferrimagnetic Skyrmions via Composition Modulation in Pt/Fe_{1-x}Tbx/Ta Multilayers.
- 12 Spin Orbit Torque Based Devices: Concepts, Progress, and Perspectives. **2023**, 650-665
- 11 Magnetic field induced deformation of the spin density wave microphases in Ca₃Co₂O₆. **2023**, 107,
- 10 Nature of magnetic transitions and evidence for magnetoelastic coupling in the biskyrmion-host hexagonal compound MnNiGa. **2023**, 170082
- 9 Current-driven magnetic skyrmion diodes controlled by voltage gates in synthetic antiferromagnets. **2023**, 122, 152404
- 8 Evidence of Strong Dzyaloshinskii-Moriya Interaction at the Cobalt/Hexagonal Boron Nitride Interface.
- 7 Ab initio exploration of short-pitch skyrmion materials: Role of orbital frustration. **2023**, 133, 150901
- 6 Interfacial quantum interference effect and dual magnetoresistance in La_{0.7}Sr_{0.3}MnO₃ thin films grown on (001) Si. **2023**, 133, 155303
- 5 Creating Skyrmions in Thin CoPt Films with an Atomic Force Microscope Probe. **2023**, 87, 318-321
- 4 Giant tunability of microwave responses for current-driven skyrmions in a tapered nanostructure with notches.
- 3 Coherent stimulated amplification of the skyrmion breathing. **2023**, 171, 113484
- 2 Observation of the Chiral Soliton Lattice above Room Temperature.
- 1 Polar Perturbations in Functional Oxide Heterostructures.