

David Cortie

List of Publications by Year in descending order

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83
papers

2,065
citations

361296
20
h-index

254106
43
g-index

83
all docs

83
docs citations

83
times ranked

2912
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced thermoelectric performance and mechanical strength of n-type BiTeSe materials produced via a composite strategy. <i>Chemical Engineering Journal</i> , 2022, 428, 131205.	6.6	26
2	Ultra-small cobalt particles embedded in titania by ion beam synthesis: Additional datasets including electron microscopy, neutron reflectometry, modelling outputs and particle size analysis. <i>Data in Brief</i> , 2022, 40, 107674.	0.5	1
3	Iron oxide-Palladium core-shell nanospheres for ferromagnetic resonance-based hydrogen gas sensing. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 8155-8163.	3.8	4
4	Optical and magnetic properties of cobalt doped TiN thin films grown by RF/DC magnetron sputtering. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 550, 169023.	1.0	5
5	Spontaneous Emergence of Optically Polarizing Nanoscale Structures by Co-Deposition of Aluminum with Refractory Metals: Implications for High-Temperature Polarizers. <i>ACS Applied Nano Materials</i> , 2022, 5, 4316-4324.	2.4	0
6	Experimental Confirmation of the Universal Law for the Vibrational Density of States of Liquids. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 3105-3111.	2.1	13
7	Lamellae preparation for atomic-resolution STEM imaging from ion-beam-sensitive topological insulator crystals. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, 033203.	0.9	0
8	The effect of hydrogen gas on Pd/[Co/Pd] ₃₀ /Pd multilayer thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 551, 169184.	1.0	2
9	Beneficial Effect of Na ₂ CO ₃ Additions on the Thermoelectric Performance of Melting Route Cu ₂ Se. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	4
10	Magnetotransport and Berry phase tuning in Gd-doped Bi ₂ Te ₃ topological insulator single crystals. <i>Physical Review Materials</i> , 2022, 6, .	2.9	18
11	Topological insulator V _x Bi _{1.08} Sn _{0.02} Sb _{0.9} Te ₂ S as a promising n-type thermoelectric material. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165550.	2.8	3
12	Observation of itinerant ferromagnetism and coupled magnetoresistance in a spinel CuCo ₂ S ₄ . <i>Journal of Materials Chemistry C</i> , 2021, 9, 8874-8881.	2.7	3
13	Significant Reduction in Thermal Conductivity and Improved Thermopower of Electron-Doped Ba _{1-x} La _x TiO ₃ with Nanostructured Rectangular Pores. <i>Advanced Electronic Materials</i> , 2021, 7, 2001044.	2.6	1
14	Giant linear magnetoresistance in half-metallic Sr ₂ CrMoO ₆ thin films. <i>Npj Quantum Materials</i> , 2021, 6, .	1.8	15
15	Epitaxial Nickel Ferrocyanide Stabilizes Jahn-Teller Distortions of Manganese Ferrocyanide for Sodium-Ion Batteries. <i>Angewandte Chemie</i> , 2021, 133, 18667-18674.	1.6	25
16	Epitaxial Nickel Ferrocyanide Stabilizes Jahn-Teller Distortions of Manganese Ferrocyanide for Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 18519-18526.	7.2	63
17	Massive Dirac fermions and strong Shubnikov-de Haas oscillations in single crystals of the topological insulator Bi ₂ Te ₃ doped with Sm and Fe. <i>Physical Review B</i> , 2021, 104, .	2.1	6
18	Copper diffusion rates and hopping pathways in superionic Cu ₂ Se. <i>Acta Materialia</i> , 2021, 215, 117026.	3.8	15

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19	Structure and magnetism of ultra-small cobalt particles assembled at titania surfaces by ion beam synthesis. Applied Surface Science, 2021, 570, 151068.	3.1	6
20	Liquid-Metal-Assisted Deposition and Patterning of Molybdenum Dioxide at Low Temperature. ACS Applied Materials & Interfaces, 2021, 13, 53181-53193.	4.0	19
21	Evolution of the metallic state in LaNiO ₃ /LaAlO ₃ superlattices measured by Li ⁸ -detected NMR. Physical Review B, 2021, 104, .	1.1	2
22	Role of A-Site Molecular Ions in the Polar Functionality of Metal-Organic Framework Perovskites. Chemistry of Materials, 2021, 33, 9666-9676.	3.2	3
23	Two-Dimensional Magnets: Forgotten History and Recent Progress towards Spintronic Applications. Advanced Functional Materials, 2020, 30, 1901414.	7.8	135
24	Development and Investigation of a NASICON-Type High-Voltage Cathode Material for High-Power Sodium-Ion Batteries. Angewandte Chemie, 2020, 132, 2470-2477.	1.6	26
25	The magnetic interfacial properties of an exchange biased nanocrystalline Ni ₈₀ Fe ₂₀ /Fe ₂ O ₃ bilayer studied by polarized neutron reflectometry and Monte Carlo simulation. Japanese Journal of Applied Physics, 2020, 59, SAAC03.	0.8	1
26	Development and Investigation of a NASICON-Type High-Voltage Cathode Material for High-Power Sodium-Ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 2449-2456.	7.2	101
27	Using polarized neutron reflectometry to resolve effects of light elements and ion exposure on magnetization. Solid State Physics, 2020, 71, 73-116.	1.3	4
28	Magnetic interplay of Mn and Yb sites in YbMn ₂ Si ₂ - Crystal field splitting. Journal of Alloys and Compounds, 2020, 845, 155316.	2.8	1
29	Creating thin magnetic layers at the surface of Sb ₂ Te ₃ topological insulators using a low-energy chromium ion beam. Applied Physics Letters, 2020, 116, .	1.5	6
30	Uncovering the mechanism of dislocation interaction with nanoscale (4 nm) interphase precipitates in microalloyed ferritic steels. Materials Research Letters, 2020, 8, 341-347.	4.1	25
31	Boson peak in ultrathin alumina layers investigated with neutron spectroscopy. Physical Review Research, 2020, 2, .	1.3	6
32	Local electronic and magnetic properties of the doped topological insulators Bi_2Te_3 and Bi_2Se_3 . Physical Review B, 2020, 102, .	1.1	7
33	Interactions in stanene centred van der Waals trilayers structures of boron-nitride and graphene: effect of mirror symmetry on electronic interactions. Journal of Physics Condensed Matter, 2020, 32, 265001.	0.7	1
34	Possible Excitonic Insulating Phase in Quantum-Confined Sb Nanoflakes. Nano Letters, 2019, 19, 4960-4964.	4.5	20
35	Local metallic and structural properties of the strongly correlated metal LaNiO ₃ using ^7Li -NMR. Physical Review B, 2019, 100, .	1.1	10
36	Modulation of Crystal and Electronic Structures in Topological Insulators by Rare-Earth Doping. ACS Applied Electronic Materials, 2019, 1, 1929-1936.	2.0	7

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37	In Operando Study of the Hydrogen-Induced Switching of Magnetic Anisotropy at the Co/Pd Interface for Magnetic Hydrogen Gas Sensing. ACS Applied Materials & Interfaces, 2019, 11, 35420-35428.	4.0	12
38	Collective nonlinear electric polarization <i>via</i> defect-driven local symmetry breaking. Materials Horizons, 2019, 6, 1717-1725.	6.4	25
39	Temperature-tuned single crystals of the topological insulator Sb_2Te_3 investigated via μ -detected nuclear magnetic relaxation and resonance of ^{209}Bi . Physical Review B, 2019, 99, .	1.1	26
40	Investigation of the ionic and electronic properties of the topological insulator Sb_2Te_3 investigated via μ -detected nuclear magnetic relaxation and resonance of ^{209}Bi . Physical Review B, 2019, 99, .	1.1	10
41	NASICON-type air-stable and all-climate cathode for sodium-ion batteries with low cost and high-power density. Nature Communications, 2019, 10, 1480.	5.8	260
42	Spin-wave propagation in Fe_2O_3 nanorods: the effect of confinement and disorder. Journal of Physics Condensed Matter, 2019, 31, 184003.	0.7	2
43	Quantum oscillations of robust topological surface states up to 50 K in thick bulk-insulating topological insulator. Npj Quantum Materials, 2019, 4, .	1.8	20
44	Highly Efficient Visible Light Catalysts Driven by Ti_3VO_4 Defect Clusters. ChemNanoMat, 2019, 5, 169-174.		3
45	Heat transfer from nanoparticles for targeted destruction of infectious organisms. International Journal of Hyperthermia, 2018, 34, 157-167.	1.1	22
46	Study of the B-site ion behaviour in the multiferroic perovskite bismuth iron chromium oxide. Journal of Applied Physics, 2018, 123, 154104.	1.1	5
47	Nature of magnetism in thiol-capped gold nanoparticles investigated with Muon spin rotation. Applied Physics Letters, 2018, 112, .	1.5	15
48	Direct Measurement of the Intrinsic Sharpness of Magnetic Interfaces Formed by Chemical Disorder Using a He ⁺ Beam. ACS Applied Materials & Interfaces, 2018, 10, 16216-16224.	4.0	11
49	Ultra-high thermoelectric performance in graphene incorporated Cu ₂ Se: Role of mismatching phonon modes. Nano Energy, 2018, 53, 993-1002.	8.2	145
50	Direct measurements of the temperature, depth and processing dependence of phenyl ring dynamics in polystyrene thin films by μ -detected NMR. Soft Matter, 2018, 14, 7324-7334.	1.2	19
51	A Novel Graphene Oxide Wrapped Na ₂ Fe ₂ (SO ₄) ₃ /C Cathode Composite for Long Life and High Energy Density Sodium-ion Batteries. Advanced Energy Materials, 2018, 8, 1800944.	10.2	101
52	Discovery of a Voltage-Stimulated Heartbeat Effect in Droplets of Liquid Gallium. Physical Review Letters, 2018, 121, 024302.	2.9	54
53	Exploring the Dynamics of Glasses Using Beta Detected NMR. , 2018, , .		1
54	The Formation of Defect Pairs for Highly Efficient Visible-Light Catalysts. Advanced Materials, 2017, 29, 1605123.	11.1	43

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55	Enhanced Magnetization of Cobalt Defect Clusters Embedded in TiO ₂ Films. ACS Applied Materials & Interfaces, 2017, 9, 8783-8795.	4.0	19
56	⁷ Li-NMR measurements of molecular-scale lithium-ion dynamics in poly(ethylene oxide)-lithium-salt thin films. Journal of Chemical Physics, 2017, 146, 244903.	1.2	5
57	Significant enhancement of figure-of-merit in carbon-reinforced Cu ₂ Se nanocrystalline solids. Nano Energy, 2017, 41, 164-171.	8.2	103
58	Tuning the electronic structure in stanene/graphene bilayers using strain and gas adsorption. Physical Chemistry Chemical Physics, 2017, 19, 25574-25581.	1.3	12
59	Determination of the nature of fluctuations using $\langle \text{Li} \rangle$ and $\langle \text{Li}^2 \rangle$ -NMR and spin-lattice relaxation. Physical Review B, 2017, 96, .	1.1	4
60	Time-Disordered Crystal Structure of AlPO ₄ -5. Journal of Physical Chemistry C, 2017, 121, 18762-18770.	1.5	4
61	Microscopic Dynamics of Li ⁺ in Rutile TiO ₂ Revealed by ⁷ Li-Detected Nuclear Magnetic Resonance. Chemistry of Materials, 2017, 29, 10187-10197.	3.2	13
62	Communication: Chemisorption of muonium on gold nanoparticles: A sensitive new probe of surface magnetism and reactivity. Journal of Chemical Physics, 2016, 145, 181102.	1.2	12
63	$\langle \text{Li}^2 \rangle$ -NMR Investigation of the Depth-Dependent Magnetic Properties of an Antiferromagnetic Surface. Physical Review Letters, 2016, 116, 106103.	2.9	13
64	Photocatalytic oxidation of methane over silver decorated zinc oxide nanocatalysts. Nature Communications, 2016, 7, 12273.	5.8	306
65	Susceptible Ferroelectric/Antiferroelectric Phase Transition near the Surface of Nb-Doped Lead Zirconate Titanate from Surface Processing. ACS Applied Materials & Interfaces, 2016, 8, 14313-14317.	4.0	17
66	Spin fluctuations in the exotic metallic state of Sr ₂ RuO ₄ studied with ⁷ Li-NMR. Physical Review B, 2015, 91, .	1.1	8
67	⁷ Li-detected NMR of $\langle \text{Li} \rangle$ and $\langle \text{Li}^2 \rangle$ in Bi ₂ Sb ₃ and the topological insulator $\langle \text{Li} \rangle$.	1.1	29
68	90° magnetic coupling in a NiFe/FeMn/biased NiFe multilayer spin valve component investigated by polarized neutron reflectometry. Journal of Applied Physics, 2014, 116, 033909.	1.1	3
69	Complementary ferromagnetic and inelastic neutron study of the dynamic anisotropy contribution to zone-center spin waves in a canted antiferromagnet $\langle \text{Nd} \rangle \langle \text{Fe} \rangle \langle \text{O} \rangle$. Physical Review B, 2014, 90, .	1.1	22
70	Enhancement of the magnetic interfacial exchange energy at a specific interface in NiFe/CoO/Co trilayer thin films via ion-beam modification. Journal of Applied Physics, 2014, 115, .	1.1	15
71	Strategies to control the spectral properties of Au ⁶⁴ Ni thin films. Thin Solid Films, 2014, 551, 200-204.	0.8	13
72	Spin-cycloid instability as the origin of weak ferromagnetism in the disordered perovskite $\langle \text{Bi} \rangle \langle \text{O} \rangle$. Physical Review B, 2014, 89, .	0.8	18

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73	Element-specific depth profile of magnetism and stoichiometry at the $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ interface. Physical Review B, 2014, 90.	1.1	16
74	Intrinsic reduction of the ordered MnO_3 moments in semiconducting rare-earth nitride thin films: DyN, ErN, and HoN. Physical Review B, 2014, 89, .	1.1	14
75	^{8}Li ^{2}NMR in the Cubic Insulator MgO. Journal of Physics: Conference Series, 2014, 551, 012033.	0.3	11
76	Parameters Controlling Emission of Terahertz Frequency Electromagnetic Radiation from InAs and GaAs: An Ensemble Monte Carlo Simulation Study. ECS Transactions, 2013, 50, 309-310.	0.3	0
77	High temperature anisotropy of NdFeO $\&$ 3 $\&$ determined using time-domain THz spectroscopy. , 2013, .		0
78	The importance of scattering, surface potential, and vanguard counter-potential in terahertz emission from gallium arsenide. Applied Physics Letters, 2012, 100, .	1.5	10
79	The magnetic structure of an epitaxial BiMn $_{0.5}$ Fe $_{0.5}$ O $_3$ thin film on SrTiO $_3$ (001) studied with neutron diffraction. Applied Physics Letters, 2012, 101, .	1.5	14
80	Modulating the Magneto-Crystalline Anisotropy and the Exchange Bias Field in CoFe/(Co,Fe)O Bilayers Using Ion-Beam Bombardment and Single Crystalline Substrates. IEEE Transactions on Magnetics, 2012, 48, 2892-2895.	1.2	5
81	Exchange bias in a nanocrystalline hematite/permalloy thin film investigated with polarized neutron reflectometry. Physical Review B, 2012, 86, .	1.1	32
82	Correlating Uncompensated Antiferromagnetic Moments and Exchange Coupling Interactions in Interface Ion-Beam Bombarded Co $_{90}$ Fe $_{10}$ /CoFe-Oxide Bilayers. Japanese Journal of Applied Physics, 2012, 51, 11PG02.	0.8	0
83	Using a custom-FPGA architecture to extend the scale of atomistic magnetic spin simulations. Journal of Computational Science, 2011, 2, 279-285.	1.5	4