

Paul R Munroe

List of Publications by Year in descending order

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424
papers

17,048
citations

16451

64
h-index

26613

107
g-index

426
all docs

426
docs citations

426
times ranked

16475
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of the critical current density and flux pinning of MgB ₂ superconductor by nanoparticle SiC doping. Applied Physics Letters, 2002, 81, 3419-3421.	3.3	770
2	A three-year experiment confirms continuous immobilization of cadmium and lead in contaminated paddy field with biochar amendment. Journal of Hazardous Materials, 2014, 272, 121-128.	12.4	482
3	Mesoporous LiFePO ₄ /C Nanocomposite Cathode Materials for High Power Lithium Ion Batteries with Superior Performance. Advanced Materials, 2010, 22, 4944-4948.	21.0	380
4	Porous Graphene Nanoarchitectures: An Efficient Catalyst for Low Charge-Overpotential, Long Life, and High Capacity Lithium-Oxygen Batteries. Nano Letters, 2014, 14, 3145-3152.	9.1	329
5	Shifting paradigms: development of high-efficiency biochar fertilizers based on nano-structures and soluble components. Carbon Management, 2013, 4, 323-343.	2.4	310
6	Imaging of mineral-enriched biochar by FTIR, Raman and SEM-EDX. Vibrational Spectroscopy, 2012, 62, 248-257.	2.2	303
7	Water extractable organic carbon in untreated and chemical treated biochars. Chemosphere, 2012, 87, 151-157.	8.2	284
8	Dendrite-Free Sodium-Metal Anodes for High-Energy Sodium-Metal Batteries. Advanced Materials, 2018, 30, e1801334.	21.0	267
9	Fabrication and Dispersion of Gold-Shell-Protected Magnetite Nanoparticles: Systematic Control Using Polyethyleneimine. Chemistry of Materials, 2009, 21, 673-681.	6.7	253
10	FIB-induced damage in silicon. Journal of Microscopy, 2004, 214, 213-221.	1.8	213
11	Nanoscale organo-mineral reactions of biochars in ferrosol: an investigation using microscopy. Plant and Soil, 2012, 357, 369-380.	3.7	209
12	Three-Dimensional Microstructural Characterization Using Focused Ion Beam Tomography. MRS Bulletin, 2007, 32, 408-416.	3.5	190
13	Comparative analysis of the microbial communities in agricultural soil amended with enhanced biochars or traditional fertilisers. Agriculture, Ecosystems and Environment, 2014, 191, 73-82.	5.3	171
14	Structural transitions and complex domain structures across a ferroelectric-to-antiferroelectric phase boundary in epitaxial Sm-doped BiFeO ₃ films. Physical Review B, 2009, 80, .	3.2	170
15	The application of focused ion beam microscopy in the material sciences. Materials Characterization, 2009, 60, 2-13.	4.4	167
16	Microstructural and associated chemical changes during the composting of a high temperature biochar: Mechanisms for nitrate, phosphate and other nutrient retention and release. Science of the Total Environment, 2018, 618, 1210-1223.	8.0	163
17	Ruthenium nanocrystals as cathode catalysts for lithium-oxygen batteries with a superior performance. Scientific Reports, 2013, 3, 2247.	3.3	158
18	Mineral-Biochar Composites: Molecular Structure and Porosity. Environmental Science & Technology, 2016, 50, 7706-7714.	10.0	148

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19	Novel nano-silicon/polypyrrole composites for lithium storage. <i>Electrochemistry Communications</i> , 2007, 9, 941-946.	4.7	141
20	Biochar bound urea boosts plant growth and reduces nitrogen leaching. <i>Science of the Total Environment</i> , 2020, 701, 134424.	8.0	137
21	Substitution-induced pinning in MgB ₂ superconductor doped with SiC nano-particles. <i>Superconductor Science and Technology</i> , 2002, 15, 1587-1591.	3.5	130
22	Three-dimensional pie-like current collectors for dendrite-free lithium metal anodes. <i>Energy Storage Materials</i> , 2018, 11, 127-133.	18.0	124
23	Control of nano carbon substitution for enhancing the critical current density in MgB ₂ . <i>Superconductor Science and Technology</i> , 2006, 19, 596-599.	3.5	122
24	The Electrochemical Properties of Biochars and How They Affect Soil Redox Properties and Processes. <i>Agronomy</i> , 2015, 5, 322-340.	3.0	122
25	Effect of nano-carbon particle doping on the flux pinning properties of MgB ₂ superconductor. <i>Physica C: Superconductivity and Its Applications</i> , 2003, 390, 185-190.	1.2	121
26	Chemolithotrophic processes in the bacterial communities on the surface of mineral-enriched biochars. <i>ISME Journal</i> , 2017, 11, 1087-1101.	9.8	121
27	Crossing an Interface: Ferroelectric Control of Tunnel Currents in Magnetic Complex Oxide Heterostructures. <i>Advanced Functional Materials</i> , 2010, 20, 2436-2441.	14.9	120
28	Influence of Ni nanoparticle on the morphology and growth of interfacial intermetallic compounds between Sn-3.8Ag-0.7Cu lead-free solder and copper substrate. <i>Intermetallics</i> , 2013, 33, 8-15.	3.9	120
29	Shear banding and recrystallization texture development in a multilayered Al alloy sheet produced by accumulative roll bonding. <i>Acta Materialia</i> , 2009, 57, 29-40.	7.9	108
30	Designing superhard, self-toughening CrAlN coatings through grain boundary engineering. <i>Acta Materialia</i> , 2012, 60, 5735-5744.	7.9	108
31	Indentation-induced damage in GaN epilayers. <i>Applied Physics Letters</i> , 2002, 80, 383-385.	3.3	107
32	The effect of grain size on the yield strength of FeAl and NiAl. <i>Acta Metallurgica Et Materialia</i> , 1991, 39, 1637-1644.	1.8	104
33	Insight into microstructural and magnetic properties of flame-made γ -Fe ₂ O ₃ nanoparticles. <i>Journal of Materials Chemistry</i> , 2007, 17, 4876.	6.7	99
34	Hierarchical NiCo ₂ O ₄ nanorods as an efficient cathode catalyst for rechargeable non-aqueous Li-O ₂ batteries. <i>Electrochemistry Communications</i> , 2013, 31, 88-91.	4.7	99
35	High transport critical current density and large H _{c2} and H _{irr} in nanoscale SiC doped MgB ₂ wires sintered at low temperature. <i>Superconductor Science and Technology</i> , 2005, 18, 658-666.	3.5	97
36	Effects of Enriched Biochars Containing Magnetic Iron Nanoparticles on Mycorrhizal Colonisation, Plant Growth, Nutrient Uptake and Soil Quality Improvement. <i>Pedosphere</i> , 2015, 25, 749-760.	4.0	96

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37	Phosphorus and Oxygen Dual-Doped Porous Carbon Spheres with Enhanced Reaction Kinetics as Anode Materials for High-Performance Potassium-Ion Hybrid Capacitors. <i>Advanced Functional Materials</i> , 2021, 31, 2102060.	14.9	96
38	Mechanical deformation of InP and GaAs by spherical indentation. <i>Applied Physics Letters</i> , 2001, 78, 3235-3237.	3.3	94
39	Spherical Clusters of NiO Nanoshafths for Lithium-Ion Battery Anodes. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, A524.	2.2	92
40	Superconductivity, critical current density, and flux pinning in $MgB_2 \cdot x(SiC)_{x/2}$ superconductor after SiC nanoparticle doping. <i>Journal of Applied Physics</i> , 2003, 94, 1850-1856.	2.5	91
41	Contact-induced defect propagation in ZnO. <i>Applied Physics Letters</i> , 2002, 80, 4537-4539.	3.3	90
42	Nanocomposites of CoO and a mesoporous carbon (CMK-3) as a high performance cathode catalyst for lithium-oxygen batteries. <i>Nano Research</i> , 2012, 5, 460-469.	10.4	90
43	Reducing the macroparticle content of cathodic arc evaporated TiN coatings. <i>Surface and Coatings Technology</i> , 2004, 183, 283-294.	4.8	87
44	Preparation of γ -Fe ₂ O ₃ submicro-flowers by a hydrothermal approach and their electrochemical performance in lithium-ion batteries. <i>Electrochimica Acta</i> , 2008, 53, 4213-4218.	5.2	86
45	Resolution enhancement by subtraction of confocal signals taken at different pinhole sizes. <i>Micron</i> , 2003, 34, 293-300.	2.2	85
46	Mesoporous hexagonal Co ₃ O ₄ for high performance lithium ion batteries. <i>Scientific Reports</i> , 2014, 4, 6519.	3.3	84
47	Deformation mechanisms of TiN multilayer coatings alternated by ductile or stiff interlayers. <i>Acta Materialia</i> , 2008, 56, 852-861.	7.9	83
48	Construction of Hierarchical $K_{1.39}Mn_{3.3}O_{6.6}$ Spheres via AlF ₃ Coating for High-Performance Potassium-Ion Batteries. <i>Advanced Energy Materials</i> , 2019, 9, 1803757.	19.5	83
49	Hierarchical macroporous/mesoporous NiCo ₂ O ₄ nanosheets as cathode catalysts for rechargeable Li-O ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12053.	10.3	82
50	Hierarchical Porous Carbon Spheres for High-Performance Na-O ₂ Batteries. <i>Advanced Materials</i> , 2017, 29, 1606816.	21.0	81
51	Biochar-based fertilizer: Supercharging root membrane potential and biomass yield of rice. <i>Science of the Total Environment</i> , 2020, 713, 136431.	8.0	78
52	Contact damage evolution in a diamond-like carbon (DLC) coating on a stainless steel substrate. <i>Thin Solid Films</i> , 2007, 515, 3196-3201.	1.8	77
53	Influences of Biochar and Biochar-Mineral Complex on Mycorrhizal Colonisation and Nutrition of Wheat and Sorghum. <i>Pedosphere</i> , 2015, 25, 686-695.	4.0	76
54	Terra Preta Australis: Reassessing the carbon storage capacity of temperate soils. <i>Agriculture, Ecosystems and Environment</i> , 2011, 140, 137-147.	5.3	75

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55	Doping effect of nano-diamond on superconductivity and flux pinning in MgB ₂ . Superconductor Science and Technology, 2003, 16, 1182-1186.	3.5	74
56	Characterization of an enriched biochar. Journal of Analytical and Applied Pyrolysis, 2014, 108, 26-34.	5.5	74
57	Feeding Biochar to Cows: An Innovative Solution for Improving Soil Fertility and Farm Productivity. Pedosphere, 2015, 25, 666-679.	4.0	74
58	Corrosion behavior of a ZrCN coated Ti alloy with potential application as a bipolar plate for proton exchange membrane fuel cell. Journal of Alloys and Compounds, 2016, 663, 718-730.	5.5	72
59	Improving flux pinning of MgB ₂ by carbon nanotube doping and ultrasonication. Superconductor Science and Technology, 2006, 19, L5-L8.	3.5	71
60	Formation and growth of nanoindentation-induced high pressure phases in crystalline and amorphous silicon. Journal of Applied Physics, 2007, 102, .	2.5	71
61	Mechanical and corrosion-resistant properties of Ti-Nb-Si-N nanocomposite films prepared by a double glow discharge plasma technique. Ceramics International, 2014, 40, 8621-8630.	4.8	71
62	Nanoindentation-induced deformation of Ge. Applied Physics Letters, 2002, 80, 2651-2653.	3.3	70
63	Nanoindentation of hard multilayer coatings: Finite element modelling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1111-1116.	5.6	69
64	Mechanical properties of ZnO epitaxial layers grown on a- and c-axis sapphire. Applied Physics Letters, 2005, 86, 203105.	3.3	68
65	Room temperature deformation behavior of multiphase Ni ₂₀ Al ₃₀ Fe and its constituent phases. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 131, 27-37.	5.6	63
66	Observation of 001 dislocations and a mechanism for transgranular fracture on {001} in FeAl. Acta Metallurgica Et Materialia, 1991, 39, 1011-1017.	1.8	62
67	Metal Dusting of Fe-Cr and Fe-Ni-Cr Alloys Under Cyclic Conditions. Oxidation of Metals, 2002, 58, 1-21.	2.1	62
68	Improved irreversibility behavior and critical current density in MgB ₂ -diamond nanocomposites. Applied Physics Letters, 2003, 83, 2916-2918.	3.3	62
69	Chemical and structural analysis of enhanced biochars: Thermally treated mixtures of biochar, chicken litter, clay and minerals. Chemosphere, 2013, 91, 35-40.	8.2	61
70	Lowering N ₂ O emissions from soils using eucalypt biochar: the importance of redox reactions. Scientific Reports, 2015, 5, 16773.	3.3	61
71	FeMnNiCoCr-based high entropy alloy coatings: Effect of nitrogen additions on microstructural development, mechanical properties and tribological performance. Applied Surface Science, 2020, 507, 145101.	6.1	61
72	Phase transformations induced by spherical indentation in ion-implanted amorphous silicon. Journal of Applied Physics, 2006, 100, 013520.	2.5	60

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73	Scratch adhesion and tribological behaviour of graded Cr/CrN/CrTiN coatings synthesized by closed-field unbalanced magnetron sputtering. <i>Wear</i> , 2017, 380-381, 163-175.	3.1	60
74	Significant enhancement of flux pinning in MgB ₂ superconductor through nano-Si addition. <i>Physica C: Superconductivity and Its Applications</i> , 2003, 385, 461-465.	1.2	59
75	Alignment of Carbon Nanotube Additives for Improved Performance of Magnesium Diboride Superconductors. <i>Advanced Materials</i> , 2006, 18, 785-788.	21.0	59
76	On the critical parameters that regulate the deformation behaviour of tooth enamel. <i>Biomaterials</i> , 2008, 29, 2697-2703.	11.4	58
77	Direct Evidence for Cation Non-stoichiometry and Cottrell Atmospheres Around Dislocation Cores in Functional Oxide Interfaces. <i>Advanced Materials</i> , 2010, 22, 2430-2434.	21.0	58
78	Developing More Effective Enhanced Biochar Fertilisers for Improvement of Pepper Yield and Quality. <i>Pedosphere</i> , 2015, 25, 703-712.	4.0	58
79	Transport critical current density in Fe-sheathed nano-SiC doped MgB ₂ wires. <i>IEEE Transactions on Applied Superconductivity</i> , 2003, 13, 3199-3202.	1.7	57
80	Deformation mechanisms operating during nanoindentation of TiN coatings on steel substrates. <i>Surface and Coatings Technology</i> , 2005, 192, 11-18.	4.8	57
81	Effect of microstructure upon elastic behaviour of human tooth enamel. <i>Journal of Biomechanics</i> , 2009, 42, 1075-1080.	2.1	57
82	Accelerated precipitation in the AFA stainless steel Fe-20Cr-30Ni-2Nb-5Al via cold working. <i>Intermetallics</i> , 2014, 53, 120-128.	3.9	57
83	Magnetic properties in δ -MnO ₂ doped with alkaline elements. <i>Scientific Reports</i> , 2015, 5, 9094.	3.3	57
84	Unraveling the catalytic activities of ruthenium nanocrystals in high performance aprotic Li-O ₂ batteries. <i>Nano Energy</i> , 2016, 28, 486-494.	16.0	56
85	Relationship between damage and hardness profiles in ion irradiated SS316 using nanoindentation experiments and modelling. <i>International Journal of Plasticity</i> , 2016, 86, 151-169.	8.8	56
86	Study of the effects of surface chemistry on splat formation for plasma sprayed NiCr onto stainless steel substrates. <i>Surface and Coatings Technology</i> , 2010, 204, 1599-1607.	4.8	55
87	Corrosion and wear behaviours of a reactive-sputter-deposited Ta ₂ O ₅ nanoceramic coating. <i>Applied Surface Science</i> , 2016, 368, 177-190.	6.1	55
88	In vitro biocompatibility of a nanocrystalline δ -Ta ₂ O ₅ coating for orthopaedic implants. <i>Ceramics International</i> , 2018, 44, 4660-4675.	4.8	54
89	Medium entropy alloy CoCrNi coatings: Enhancing hardness and damage-tolerance through a nanotwinned structuring. <i>Surface and Coatings Technology</i> , 2018, 335, 257-264.	4.8	52
90	Niobium addition enhancing the corrosion resistance of nanocrystalline Ti ₅ Si ₃ coating in H ₂ SO ₄ solution. <i>Acta Materialia</i> , 2014, 63, 245-260.	7.9	51

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91	Damage in III-V Compounds during Focused Ion Beam Milling. <i>Microscopy and Microanalysis</i> , 2005, 11, 446-455.	0.4	50
92	Transmission electron microscope characterisation of molar-incisor-hypomineralisation. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 3187-3192.	3.6	50
93	Phase field simulations of ferroelectrics domain structures in $\text{PbZr}_{x}\text{Ti}_{1-x}\text{O}_3$ bilayers. <i>Acta Materialia</i> , 2013, 61, 2909-2918.	7.9	50
94	Electrochemical Corrosion Behavior of Nanocrystalline TiO_2 -Ta Coating for Biomedical Applications. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 579-594.	5.2	50
95	Enhancement of in-field J_c in MgB_2/Fe wire using single- and multiwalled carbon nanotubes. <i>Applied Physics Letters</i> , 2006, 89, 122510.	3.3	49
96	$\text{K}_2\text{Ti}_2\text{O}_5$ @C Microspheres with Enhanced K^+ Intercalation Pseudocapacitance Ensuring Fast Potassium Storage and Long-Term Cycling Stability. <i>Small</i> , 2020, 16, e1906131.	10.0	49
97	The microstructure of extruded Fe-Al. <i>Journal of Materials Science</i> , 1989, 24, 4246-4252.	3.7	48
98	Deformation and fracture of TiN and TiAlN coatings on a steel substrate during nanoindentation. <i>Surface and Coatings Technology</i> , 2006, 200, 3518-3526.	4.8	48
99	Characterization of organic compounds in biochars derived from municipal solid waste. <i>Waste Management</i> , 2017, 67, 131-142.	7.4	48
100	Comparison between nano-diamond and carbon nanotube doping effects on critical current density and flux pinning in MgB_2 . <i>Superconductor Science and Technology</i> , 2007, 20, 296-301.	3.5	47
101	Biochar as a Geoengineering Climate Solution: Hazard Identification and Risk Management. <i>Critical Reviews in Environmental Science and Technology</i> , 2012, 42, 225-250.	12.8	47
102	Corrosion behaviour of nanocomposite TiSiN coatings on steel substrates. <i>Corrosion Science</i> , 2011, 53, 3678-3687.	6.6	46
103	Effects of environment on the sliding tribological behaviors of Zr-based bulk metallic glass. <i>Intermetallics</i> , 2012, 25, 115-125.	3.9	46
104	Enhancing toughness of CrN coatings by Ni addition for safety-critical applications. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 596, 264-274.	5.6	46
105	Phosphorus adsorption onto an enriched biochar substrate in constructed wetlands treating wastewater. <i>Ecological Engineering: X</i> , 2019, 142, 100005.	3.5	46
106	Biochar increases soil organic carbon, avocado yields and economic return over 4 years of cultivation. <i>Science of the Total Environment</i> , 2020, 724, 138153.	8.0	46
107	Redeposition effects in transmission electron microscope specimens of FeAl_3/WC composites prepared using a focused ion beam. <i>Micron</i> , 2003, 34, 97-107.	2.2	45
108	A new high-strength spinodal alloy. <i>Journal of Materials Research</i> , 2005, 20, 791-795.	2.6	45

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109	A reactive-sputter-deposited TiSiN nanocomposite coating for the protection of metallic bipolar plates in proton exchange membrane fuel cells. <i>Ceramics International</i> , 2020, 46, 2743-2757.	4.8	45
110	Improving Intermetallic Ductility and Toughness. <i>Jom</i> , 1988, 40, 28-31.	1.9	44
111	Tribological studies of a Zr-based bulk metallic glass. <i>Intermetallics</i> , 2013, 35, 25-32.	3.9	44
112	Phase transformations induced in relaxed amorphous silicon by indentation at room temperature. <i>Applied Physics Letters</i> , 2004, 85, 5559-5561.	3.3	43
113	The application of focused ion beam technology to the characterization of coatings. <i>Surface and Coatings Technology</i> , 2005, 198, 165-168.	4.8	43
114	Effect of amendment of biochar supplemented with Si on Cd mobility and rice uptake over three rice growing seasons in an acidic Cd-tainted paddy from central South China. <i>Science of the Total Environment</i> , 2020, 709, 136101.	8.0	43
115	Unraveling dual phase transformations in a CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2021, 215, 117112.	7.9	43
116	Remarkable cavitation erosion-corrosion resistance of CoCrFeNiTiMo high-entropy alloy coatings. <i>Corrosion Science</i> , 2021, 190, 109663.	6.6	43
117	Microprocesses in nickel accompanying metal dusting. <i>Acta Materialia</i> , 2008, 56, 68-77.	7.9	42
118	Giant pop-ins and amorphization in germanium during indentation. <i>Journal of Applied Physics</i> , 2007, 101, 043524.	2.5	41
119	Microstructural response of TiN monolithic and multilayer coatings during microscratch testing. <i>Journal of Materials Research</i> , 2007, 22, 2312-2318.	2.6	41
120	Focused Ion beam implantation of diamond. <i>Diamond and Related Materials</i> , 2011, 20, 1125-1128.	3.9	41
121	Investigation of the structure of damage layers in TEM samples prepared using a focused ion beam. <i>Journal of Materials Science Letters</i> , 2001, 20, 1181-1183.	0.5	40
122	Thermal-strain-induced enhancement of electromagnetic properties of SiC-MgB ₂ composites. <i>Applied Physics Letters</i> , 2009, 94, 042510.	3.3	40
123	Effects of TiN sublayers on the response of TiSiN nanocomposite coatings to nanoindentation and scratching contacts. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4447-4457.	5.6	40
124	Extremely hard, damage-tolerant ceramic coatings with functionally graded, periodically varying architecture. <i>Acta Materialia</i> , 2013, 61, 193-204.	7.9	40
125	Immobilization of heavy metals in contaminated soil after mining activity by using biochar and other industrial by-products: the significant role of minerals on the biochar surfaces. <i>Environmental Technology (United Kingdom)</i> , 2019, 40, 3200-3215.	2.2	40
126	Reactive-sputter-deposited $\text{Hf-Ta}_2\text{O}_5$ and TaON nanoceramic coatings on Ti-6Al-4V alloy against wear and corrosion damage. <i>Surface and Coatings Technology</i> , 2016, 296, 171-184.	4.8	39

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127	Room temperature tensile ductility in polycrystalline B2 Ni-30Al-20Fe. Scripta Metallurgica, 1989, 23, 897-900.	1.2	38
128	The effect of the gold sputter-coated films in minimising damage in FIB-produced TEM specimens. Materials Letters, 2003, 57, 2238-2241.	2.6	38
129	Transmission electron microscopy of TiN and TiAlN thin films using specimens prepared by focused ion beam milling. Surface and Coatings Technology, 2004, 183, 239-246.	4.8	38
130	Effect of coating thickness on the deformation mechanisms in PVD TiN-coated steel. Surface and Coatings Technology, 2010, 204, 1764-1773.	4.8	38
131	The effect of ternary additions on the vacancy hardening of FeAl. Scripta Metallurgica Et Materialia, 1994, 30, 1079-1083.	1.0	37
132	Effect of Substrate Hardness on Splat Morphology in High-Velocity Thermal Spray Coatings. Journal of Thermal Spray Technology, 2006, 15, 663-669.	3.1	37
133	Study of the microstructure of NiCr splats plasma sprayed on to stainless steel substrates by TEM. Surface and Coatings Technology, 2010, 204, 1608-1615.	4.8	37
134	Promoting bone-like apatite formation on titanium alloys through nanocrystalline tantalum nitride coatings. Journal of Materials Chemistry B, 2015, 3, 4082-4094.	5.8	37
135	A nanocrystalline zirconium carbide coating as a functional corrosion-resistant barrier for polymer electrolyte membrane fuel cell application. Journal of Power Sources, 2015, 297, 359-369.	7.8	37
136	Giant pop-ins in nanoindented silicon and germanium caused by lateral cracking. Journal of Materials Research, 2008, 23, 297-301.	2.6	36
137	Factors governing the mechanical behaviour of CrSiN coatings: Combined nanoindentation testing and transmission electron microscopy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 297-308.	5.6	36
138	Pyrolysis of attapulgite clay blended with yak dung enhances pasture growth and soil health: Characterization and initial field trials. Science of the Total Environment, 2017, 607-608, 184-194.	8.0	36
139	Crop-season and residual effects of sequentially applied mineral enhanced biochar and N fertiliser on crop yield, soil chemistry and microbial communities. Agriculture, Ecosystems and Environment, 2018, 255, 52-61.	5.3	36
140	The effect of ternary additions on vacancy hardening in near stoichiometric FeAl. Intermetallics, 1996, 4, 403-415.	3.9	35
141	Deformation and fracture of TiSiN nanocomposite films. Thin Solid Films, 2005, 479, 193-200.	1.8	35
142	A ZrN nanocrystalline coating for polymer electrolyte membrane fuel cell metallic bipolar plates prepared by reactive sputter deposition. RSC Advances, 2015, 5, 67348-67356.	3.6	35
143	Structure and mechanical properties of graded Cr/CrN/CrTiN coatings synthesized by close field unbalanced magnetron sputtering. Surface and Coatings Technology, 2017, 309, 779-789.	4.8	35
144	High temperature stabilization of a nanostructured Cu-Y2O3 composite through microalloying with Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 80-87.	5.6	35

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145	Structural characterization of pressure-induced amorphous silicon. <i>Physical Review B</i> , 2009, 79, .	3.2	34
146	Rate-dependent phase transformations in nanoindented germanium. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	34
147	Study of the splat formation for plasma sprayed NiCr on aluminum substrate as a function of substrate condition. <i>Surface and Coatings Technology</i> , 2010, 204, 2647-2656.	4.8	34
148	Control of the damage resistance of nanocomposite TiSiN coatings on steels: Roles of residual stress. <i>Thin Solid Films</i> , 2011, 519, 5007-5012.	1.8	34
149	Migration of dissolved organic carbon in biochars and biochar-mineral complexes. <i>Pesquisa Agropecuaria Brasileira</i> , 2012, 47, 677-686.	0.9	34
150	Chemical bonding states and solar selective characteristics of unbalanced magnetron sputtered Ti _x M _{1-x} N _y films. <i>RSC Advances</i> , 2016, 6, 36373-36383.	3.6	34
151	Contact damage evolution in diamondlike carbon coatings on ductile substrates. <i>Journal of Materials Research</i> , 2008, 23, 27-36.	2.6	33
152	Electrochemical noise analysis of cavitation erosion corrosion resistance of NbC nanocrystalline coating in a 3.5wt% NaCl solution. <i>Surface and Coatings Technology</i> , 2021, 415, 127133.	4.8	33
153	Transmission Electron Microscope Specimen Preparation of Metal Matrix Composites Using the Focused Ion Beam Miller. <i>Microscopy and Microanalysis</i> , 2000, 6, 452-462.	0.4	32
154	Deformation of a hard coating on ductile substrate system during nanoindentation: Role of the coating microstructure. <i>Journal of Materials Research</i> , 2006, 21, 437-447.	2.6	32
155	Fabrication, Raman spectra and ferromagnetic properties of the transition metal doped ZnO nanocrystals. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 6518-6521.	2.8	32
156	Coherent super-resolution microscopy via laterally structured illumination. <i>Micron</i> , 2007, 38, 150-157.	2.2	32
157	The roles of passive layers in regulating the electrochemical behavior of Ti ₅ Si ₃ -based nanocomposite films. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2064-2078.	10.3	32
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