Daniel Gall

List of Publications by Year
in descending order

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193 papers	9,267 citations	28242 55 h-index	51562 86 g-index
197 all docs	197 docs citations	197 times ranked	6181 citing authors

#	Article	IF	Citations
1	Electron mean free path in elemental metals. Journal of Applied Physics, 2016, 119, .	1.1	630
2	Pathways of atomistic processes on TiN(001) and (111) surfaces during film growth: anab initiostudy. Journal of Applied Physics, 2003, 93, 9086-9094.	1.1	318
3	Growth of poly- and single-crystal ScN on MgO(001): Role of low-energy N2+ irradiation in determining texture, microstructure evolution, and mechanical properties. Journal of Applied Physics, 1998, 84, 6034-6041.	1.1	218
4	Valence electron concentration as an indicator for mechanical properties in rocksalt structure nitrides, carbides and carbonitrides. Acta Materialia, 2018, 152, 175-185.	3.8	178
5	The search for the most conductive metal for narrow interconnect lines. Journal of Applied Physics, 2020, 127, .	1.1	158
6	Vacancy hardening in single-crystal TiNx(001) layers. Journal of Applied Physics, 2003, 93, 6025-6028.	1.1	146
7	CrNâ€“Ag self-lubricating hard coatings. Surface and Coatings Technology, 2005, 200, 1495-1500.	2.2	144
8	Electronic structure of ScN determined using optical spectroscopy, photoemission, andab initiocalculations. Physical Review B, 2001, 63, .	1.1	139
9	Electron scattering at surfaces and grain boundaries in Cu thin films and wires. Physical Review B, 2011, 84, .	1.1	134
10	Growth of Y-Shaped Nanorods through Physical Vapor Deposition. Nano Letters, 2005, 5, 2505-2508.	4.5	133
11	Resistivity of thin Cu films with surface roughness. Physical Review B, 2009, 79, .	1.1	127
12	Nanospring Pressure Sensors Grown by Glancing Angle Deposition. Nano Letters, 2006, 6, 854-857.	4.5	123
13	The influence of surface roughness on electrical conductance of thin Cu films: An ab initio study. Journal of Applied Physics, 2008, 103, .	1.1	121
14	A chiral switchable photovoltaic ferroelectric 1D perovskite. Science Advances, 2020, 6, eaay4213.	4.7	119
15	Growth, surface morphology, and electrical resistivity of fully strained substoichiometric epitaxial TiNx (0.67â©½x<1.0) layers on MgO(001). Journal of Applied Physics, 2004, 95, 356-362.	1.1	118
16	Surface and bulk electronic structure ofScN(001)investigated by scanning tunneling microscopy/spectroscopy and optical absorption spectroscopy. Physical Review B, 2004, 70, .	1.1	118
17	Growth of single-crystal CrN on MgO(001): Effects of low-energy ion-irradiation on surface morphological evolution and physical properties. Journal of Applied Physics, 2002, 91, 3589-3597.	1.1	117
18	Band gap in epitaxial NaCl-structure CrN(001) layers. Journal of Applied Physics, 2002, 91, 5882-5886.	1.1	117

#	Article	IF	Citations
19	Microstructure and electronic properties of the refractory semiconductor ScN grown on MgO(001) by ultra-high-vacuum reactive magnetron sputter deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2411-2417.	0.9	112
20	Phase composition and microstructure of polycrystalline and epitaxial TaNx layers grown on oxidized Si(001) and MgO(001) by reactive magnetron sputter deposition. Thin Solid Films, 2002, 402, 172-182.	0.8	109
21	Electronic and bonding analysis of hardness in pyrite-type transition-metal pernitrides. Physical Review B, 2014, 90, .	1.1	108
22	Molecular beam epitaxy control of the structural, optical, and electronic properties of ScN(001). Journal of Applied Physics, 2001, 90, 1809-1816.	1.1	105
23	Epitaxial and polycrystalline HfNx (0.8â©½xâ©½1.5) layers on MgO(001): Film growth and physical properties. Journal of Applied Physics, 2005, 97, 083521.	1.1	95
24	Optical and transport measurement and first-principles determination of the ScN band gap. Physical Review B, 2015, 91, .	1.1	95
25	Structure zone model for extreme shadowing conditions. Thin Solid Films, 2013, 527, 158-163.	0.8	94
26	Carrier lifetime enhancement in halide perovskite via remote epitaxy. Nature Communications, 2019, 10, 4145.	5.8	93
27	Epitaxial NaCl structure Î´-TaNx(001): Electronic transport properties, elastic modulus, and hardness versus N/Ta ratio. Journal of Applied Physics, 2001, 90, 2879-2885.	1.1	88
28	Specular electron scattering at single-crystal Cu(001) surfaces. Applied Physics Letters, 2009, 94, .	1.5	88
29	Development of preferred orientation in polycrystalline NaCl-structure Î´-TaN layers grown by reactive magnetron sputtering: Role of low-energy ion surface interactions. Journal of Applied Physics, 2002, 92, 5084-5093.	1.1	87
30	Structural, mechanical and electronic properties of 3d transition metal nitrides in cubic zincblende, rocksalt and cesium chloride structures: a first-principles investigation. Journal of Physics Condensed Matter, 2014, 26, 025404.	0.7	86
31	Epitaxial Sc1â^'xTixN(001): Optical and electronic transport properties. Journal of Applied Physics, 2001, 89, 401-409.	1.1	84
32	Growth and physical properties of epitaxial HfN layers on MgO(001). Journal of Applied Physics, 2004, 96, 878-884.	1.1	83
33	High-Temperature Tribological Behavior of CrN-Ag Self-lubricating Coatings. Advanced Engineering Materials, 2006, 8, 1125-1129.	1.6	81
34	Bandgap in Al1â^'xScxN. Applied Physics Letters, 2013, 102, .	1.5	81
35	Energetics of point defects in rocksalt structure transition metal nitrides: Thermodynamic reasons for deviations from stoichiometry. Acta Materialia, 2018, 159, 77-88.	3.8	81
36	First-principles investigation of the structural, mechanical and electronic properties of the NbO-structured 3d, 4d and 5d transition metal nitrides. Computational Materials Science, 2014, 84, 365-373.	1.4	78

#	Article	IF	Citations
37	CrNâ€“Ag nanocomposite coatings: Tribology at room temperature and during a temperature ramp. Surface and Coatings Technology, 2010, 204, 1388-1394.	2.2	74
38	Variable-range hopping conduction in epitaxial CrN(001). Physical Review B, 2011, 83, .	1.1	74
39	Calculated Resistances of Single Grain Boundaries in Copper. Physical Review Applied, 2014, 2, .	1.5	74
40	Vacancy-induced mechanical stabilization of cubic tungsten nitride. Physical Review B, 2016, 94, .	1.1	70
41	Microstructural evolution and Poisson ratio of epitaxial ScN grown on TiN(001)/MgO(001) by ultrahigh vacuum reactive magnetron sputter deposition. Journal of Applied Physics, 1999, 86, 5524-5529.	1.1	68
42	Branched Ta nanocolumns grown by glancing angle deposition. Applied Physics Letters, 2006, 88, 203117.	1.5	68
43	Two-component nanopillar arrays grown by Glancing Angle Deposition. Thin Solid Films, 2006, 494, 234-239.	0.8	67
44	CrNâ€“Ag nanocomposite coatings: High-temperature tribological response. Wear, 2010, 269, 125-131.	1.5	66
45	Growth and physical properties of epitaxial metastable cubic TaN(001). Applied Physics Letters, 1999, 75, 3808-3810.	1.5	65
46	Growth competition during glancing angle deposition of nanorod honeycomb arrays. Applied Physics Letters, 2007, 90, 093103.	1.5	65
47	Effective electron mean free path in TiN(001). Journal of Applied Physics, 2013, 113, .	1.1	63
48	Resistivity of thin Cu films coated with Ta, Ti, Ru, Al, and Pd barrier layers from first principles. Physical Review B, 2010, 81, .	1.1	62
49	Effect of O2 adsorption on electron scattering at Cu(001) surfaces. Applied Physics Letters, 2010, 97, .	1.5	62
50	Ni doping on Cu surfaces: Reduced copper resistivity. Applied Physics Letters, 2014, 105, .	1.5	61
51	The anisotropic size effect of the electrical resistivity of metal thin films: Tungsten. Journal of Applied Physics, 2017, 122, .	1.1	61
52	The structure of Ta nanopillars grown by glancing angle deposition. Thin Solid Films, 2006, 515, 1223-1227.	0.8	59
53	Resistivity size effect in epitaxial Ru(0001) layers. Journal of Applied Physics, 2018, 124, .	1.1	59
54	Growth and mechanical properties of epitaxial NbN(001) films on MgO(001). Surface and Coatings Technology, 2016, 288, 105-114.	2.2	58

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55	Resistivity scaling due to electron surface scattering in thin metal layers. Physical Review B, 2018, 97, .	1.1	58
56	Electron scattering at single crystal Cu surfaces. Thin Solid Films, 2007, 516, 465-469.	0.8	57
57	Mechanical properties and electronic structure of anti-ReO3 structured cubic nitrides, M3N, of d block transition metals M: An ab initio study. Journal of Alloys and Compounds, 2014, 595, 80-86.	2.8	55
58	Epitaxial Ti1-xWxN alloys grown on MgO(001) by ultrahigh vacuum reactive magnetron sputtering: Electronic properties and long-range cation ordering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 140-146.	0.9	54
59	Effects of compressive strains on electrical conductivities of a macroscale carbon nanotube block. Applied Physics Letters, 2007, 91, .	1.5	54
60	Sputter-Deposited Pt PEM Fuel Cell Electrodes: Particles vs Layers. Journal of the Electrochemical Society, 2009, 156, B614.	1.3	53
61	Epitaxial suppression of the metal-insulator transition in CrN. Physical Review B, 2011, 84, .	1.1	53
62	Surface patterning by nanosphere lithography for layer growth with ordered pores. Thin Solid Films, 2007, 516, 433-437.	0.8	51
63	Vibrational modes in epitaxialTi1âˆ’xScxN(001)layers: Anab initiocalculation and Raman spectroscopy study. Physical Review B, 2001, 64, .	1.1	50
64	Anisotropic broadening of Cu nanorods during glancing angle deposition. Applied Physics Letters, 2006, 89, 203121.	1.5	50
65	CrNâ€“Ag nanocomposite coatings: Effect of growth temperature on the microstructure. Surface and Coatings Technology, 2008, 203, 584-587.	2.2	50
66	Competitive growth of Ta nanopillars during glancing angle deposition: Effect of surface diffusion. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 312-318.	0.9	49
67	Reducing Grain-Boundary Resistivity of Copper Nanowires by Doping. Physical Review Applied, 2016, 5, .	1.5	48
68	Cubic Î²-WN layers: Growth and properties vs N-to-W ratio. Surface and Coatings Technology, 2016, 304, 98-107.	2.2	46
69	Nucleation kinetics during homoepitaxial growth of TiN(001) by reactive magnetron sputtering. Physical Review B, 2004, 70, .	1.1	45
70	Development of two-level porosity during glancing angle deposition. Journal of Applied Physics, 2008, 103, .	1.1	44
71	The electrical resistivity of rough thin films: A model based on electron reflection at discrete step edges. Journal of Applied Physics, 2018, 123, .	1.1	44
72	Phase stability, nitrogen vacancies, growth mode, and surface structure of ScN(001) under Sc-rich conditions. Journal of Crystal Growth, 2002, 242, 345-354.	0.7	42

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73	Growth of epitaxial Cu on MgO(001) by magnetron sputter deposition. Thin Solid Films, 2006, 515, 1166-1170.	0.8	42
74	Control of lubricant transport by a CrN diffusion barrier layer during high-temperature sliding of a CrNâ€“Ag composite coating. Surface and Coatings Technology, 2010, 205, 1350-1355.	2.2	42
75	Infrared Plasmonics with Conductive Ternary Nitrides. ACS Applied Materials & Interfaces, 2017, 9, 10825-10834.	4.0	42
76	Growth of epitaxial CrN on MgO(001): Role of deposition angle on surface morphological evolution. Thin Solid Films, 2006, 494, 330-335.	0.8	41
77	CrN electronic structure and vibrational modes: An optical analysis. Physical Review B, 2010, 82, .	1.1	41
78	First-principles study of mechanical and magnetic properties of transition metal (M) nitrides in the cubic M4N structure. Journal of Physics and Chemistry of Solids, 2018, 120, 197-206.	1.9	41
79	Epitaxial growth of metastable Î´-TaN layers on MgO(001) using low-energy, high-flux ion irradiation during ultrahigh vacuum reactive magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 2007.	0.9	40
80	Phase stability and mechanical properties of Mo1-xNx with 0 â‰¤ x â‰¤ 1. Journal of Applied Physics, 2017, 122, .	1.1	39
81	Multi-component nanostructure design by atomic shadowing. Thin Solid Films, 2008, 517, 1214-1218.	0.8	38
82	Electron channeling in TiO₂coated Cu layers. Semiconductor Science and Technology, 2016, 31, 055005.	1.0	38
83	Nucleation kinetics versus nitrogen partial pressure during homoepitaxial growth of stoichiometric TiN(001): A scanning tunneling microscopy study. Surface Science, 2005, 581, L122-127.	0.8	37
84	Epitaxial TiN(001) wetting layer for growth of thin single-crystal Cu(001). Journal of Applied Physics, 2011, 110, .	1.1	37
85	Epitaxial Ag(001) grown on MgO(001) and TiN(001): Twinning, surface morphology, and electron surface scattering. Journal of Applied Physics, 2012, 111, .	1.1	37
86	Surface roughness dependence of the electrical resistivity of W(001) layers. Journal of Applied Physics, 2017, 122, .	1.1	37
87	Optical and electron transport properties of rock-salt Sc1â^'xAlxN. Journal of Applied Physics, 2015, 118, .	1.1	36
88	Epitaxial growth and properties of cubic WN on MgO(001), MgO(111), and Al2O3(0001). Thin Solid Films, 2015, 590, 276-283.	0.8	36
89	Resistivity scaling and electron surface scattering in epitaxial Co(0001) layers. Journal of Applied Physics, 2019, 125, .	1.1	36
90	Epitaxial NbC N1â^'(001) layers: Growth, mechanical properties, and electrical resistivity. Surface and Coatings Technology, 2015, 277, 136-143.	2.2	35

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91	MULTIWAVELENGTH OBSERVATIONS OF LS I +61Â° 303 WITH VERITAS,SWIFT, ANDRXTE. Astrophysical Journal, 2009, 700, 1034-1041.	1.6	34
92	Sputter deposited NbC x N y films: Effect of nitrogen content on structure and mechanical and tribological properties. Surface and Coatings Technology, 2014, 258, 746-753.	2.2	34
93	Twoâ€Component Nanorod Arrays by Glancingâ€Angle Deposition. Small, 2008, 4, 1351-1354.	5.2	33
94	Ag transport in CrNâ€“Ag nanocomposite coatings. Thin Solid Films, 2012, 520, 6774-6779.	0.8	33
95	Cation and anion vacancies in cubic molybdenum nitride. Journal of Alloys and Compounds, 2017, 705, 631-637.	2.8	33
96	First-principles phase diagram calculations for the rocksalt-structure quasibinary systems TiNâ€“ZrN, TiNâ€“HfN and ZrNâ€“HfN. Journal of Physics Condensed Matter, 2017, 29, 035401.	0.7	33
97	A Reconfigurable Remotely Epitaxial VO₂ Electrical Heterostructure. Nano Letters, 2020, 20, 33-42.	4.5	33
98	Materials for interconnects. MRS Bulletin, 2021, 46, 959-966.	1.7	33
99	Size-Dependent Detachment-Limited Decay Kinetics of Two-Dimensional TiN Islands on TiN(111). Physical Review Letters, 2002, 89, 176102.	2.9	32
100	Optical phonon modes in Al1â^'xScxN. Journal of Applied Physics, 2014, 115, .	1.1	32
101	Epitaxial growth of tungsten layers on MgO(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	0.9	32
102	Growth and properties of epitaxial Ti1â^'xMgxN(001) layers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	0.9	32
103	Growth and physical properties of epitaxial CeN layers on MgO(001). Journal of Applied Physics, 2003, 94, 921-927.	1.1	31
104	Epitaxial TiN(001) Grown and Analyzed In situ by XPS and UPS. I. Analysis of As-deposited Layers. Surface Science Spectra, 2000, 7, 193-203.	0.3	29
105	Epitaxial metals for interconnects beyond Cu. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	29
106	CrNâ€“Ag nanocomposite coatings: Control of lubricant transport by diffusion barriers. Thin Solid Films, 2012, 524, 211-217.	0.8	28
107	Copper Interconnects: Surface State Engineering to Facilitate Specular Electron Scattering. IEEE Transactions on Electron Devices, 2019, 66, 2692-2698.	1.6	27
108	Resistivity and surface scattering of (0001) single crystal ruthenium thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	27

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109	Structural characterization of a Cu/MgO(001) interface using CS-corrected HRTEM. Thin Solid Films, 2010, 519, 1662-1667.	0.8	26
110	Power law scaling during physical vapor deposition under extreme shadowing conditions. Journal of Applied Physics, 2010, 107, .	1.1	26
111	NiAl as a potential material for liner- and barrier-free interconnect in ultrasmall technology node. Applied Physics Letters, 2018, 113, .	1.5	26
112	Thermal boundary conductance across epitaxial metal/sapphire interfaces. Physical Review B, 2020, 102, .	1.1	26
113	Biaxial texture development in aluminum nitride layers during off-axis sputter deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	25
114	Surface morphological evolution of epitaxial CrN(001) layers. Journal of Applied Physics, 2005, 98, 054906.	1.1	24
115	Sputter-Deposited Pt/CrN Nanoparticle PEM Fuel Cell Cathodes: Limited Proton Conductivity Through Electrode Dewetting. Journal of the Electrochemical Society, 2010, 157, B71.	1.3	24
116	Surface morphological evolution during annealing of epitaxial Cu(001) layers. Journal of Applied Physics, 2008, 104, .	1.1	23
117	Elastic constants of epitaxial cubic MoN (001) layers. Surface and Coatings Technology, 2017, 325, 572-578.	2.2	23
118	The Resistivity Size Effect in Epitaxial Nb(001) and Nb(011) Layers. IEEE Transactions on Electron Devices, 2019, 66, 3473-3478.	1.6	23
119	Anomalous scaling during glancing angle deposition. Applied Physics Letters, 2009, 95, .	1.5	22
120	Epitaxial TiN(001) Grown and Analyzed In situ by XPS and UPS. II. Analysis of Ar+ Sputter Etched Layers. Surface Science Spectra, 2000, 7, 204-212.	0.3	21
121	In situ X-ray Photoelectron, Ultraviolet Photoelectron, and Auger Electron Spectroscopy Spectra from First-Row Transition-Metal Nitrides: ScN, TiN, VN, and CrN. Surface Science Spectra, 2000, 7, 167-168.	0.3	21
122	Fully strained epitaxial Ti1â^'Mg N(001) layers. Thin Solid Films, 2019, 688, 137165.	0.8	21
123	Electronic, optical, and thermoelectric properties of sodium pnictogen chalcogenides: A first principles study. Computational Materials Science, 2020, 183, 109818.	1.4	21
124	Stability, and electronic and optical properties of ternary nitride phases of MgSnN2: A first-principles study. Journal of Physics and Chemistry of Solids, 2021, 153, 110011.	1.9	21
125	Pulsed plasma deposition of chromium oxide/chromiumâ€cermet coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 374-379.	0.9	20
126	C incorporation in epitaxialGe1â^'yCylayers grown on Ge(001):â€ƒAnab initiostudy. Physical Review B, 2000, 62, R7723-R7726.	1.1	20

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127	Nanorod PEM Fuel Cell Cathodes with Controlled Porosity. Journal of the Electrochemical Society, 2010, 157, B437.	1.3	20
128	Plasmonic and phononic properties of epitaxial conductive transition metal nitrides. Journal of Optics (United Kingdom), 2020, 22, 084001.	1.0	20
129	Surface mound formation during epitaxial growth of CrN(001). Thin Solid Films, 2010, 518, 3813-3818.	0.8	19
130	Dynamical stabilization in delafossite nitrides for solar energy conversion. Journal of Materials Chemistry A, 2018, 6, 20852-20860.	5.2	19
131	Improved optoelectronic properties in CdSexTe1â^'x through controlled composition and short-range order. Solar Energy, 2019, 194, 742-750.	2.9	19
132	Electron Scattering at Epitaxial Ni(001) Surfaces. IEEE Transactions on Electron Devices, 2019, 66, 4326-4330.	1.6	19
133	Resistivity Size Effect in Epitaxial Rh(001) and Rh(111) Layers. IEEE Transactions on Electron Devices, 2021, 68, 257-263.	1.6	19
134	Ta nanotubes grown by glancing angle deposition. Journal of Vacuum Science & Technology B, 2008, 26, 678-681.	1.3	18
135	Prediction of improved magnetization and stability in Fe16N2 through alloying. Journal of Applied Physics, 2019, 126, .	1.1	18
136	Unconventional superconductivity in 3d rocksalt transition metal carbides. Journal of Materials Chemistry C, 2019, 7, 12619-12632.	2.7	18
137	Can micro-compression testing provide stressâ€“strain data for thin films?. Thin Solid Films, 2009, 518, 1517-1521.	0.8	17
138	Metals for Low-Resistivity Interconnects. , 2018, , .		17
139	First principles investigation into the phase stability and enhanced hardness of TiN-ScN and TiN-YN alloys. Thin Solid Films, 2019, 688, 137284.	0.8	16
140	Resistivity size effect in epitaxial iridium layers. Journal of Applied Physics, 2021, 130, .	1.1	16
141	Temperature-induced chaos during nanorod growth by physical vapor deposition. Journal of Applied Physics, 2009, 105, .	1.1	15
142	Electronic and optical properties of rocksalt-phase tungsten nitride (B1-WN). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	15
143	The Resistivity Size Effect in Epitaxial Ru(0001) and Co(0001) Layers. , 2018, , .		15
144	Conductive surface oxide on CrN(001) layers. Applied Physics Letters, 2019, 114, .	1.5	15

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145	Growth of CoSi2 on Si(001) by reactive deposition epitaxy. Journal of Applied Physics, 2005, 97, 044909.	1.1	14
146	A first-principles analysis of ballistic conductance, grain boundary scattering and vertical resistance in aluminum interconnects. AIP Advances, 2018, 8, 055127.	0.6	14
147	Interdiffusion reliability and resistivity scaling of intermetallic compounds as advanced interconnect materials. Journal of Applied Physics, 2021, 129, .	1.1	14
148	Quantitative C lattice site distributions in epitaxial Ge1â^'yCy/Ge(001) layers. Journal of Applied Physics, 2001, 90, 3910-3918.	1.1	13
149	C lattice site distributions in metastable Ge1â^'yCy alloys grown on Ge(001) by molecular-beam epitaxy. Journal of Applied Physics, 2002, 91, 3644-3652.	1.1	13
150	Effect of swift heavy ion irradiation on the hardness of chromium nanorods. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 887-892.	0.9	13
151	Pore Formation by In Situ Etching of Nanorod PEM Fuel Cell Electrodes. Journal of the Electrochemical Society, 2010, 157, B113.	1.3	13
152	Electron scattering at Co(0001) surfaces: Effects of Ti and TiN capping layers. AIP Advances, 2020, 10, .	0.6	13
153	Carbon incorporation pathways and lattice sites in Si1â^'yCy alloys grown on Si(001) by molecular-beam epitaxy. Journal of Applied Physics, 2002, 91, 5716-5727.	1.1	12
154	Microstructure and age hardening of C276 alloy coatings. Surface and Coatings Technology, 2015, 270, 299-304.	2.2	12
155	SiO₂ Free HfO₂ Gate Dielectrics by Physical Vapor Deposition. IEEE Transactions on Electron Devices, 2015, 62, 2878-2882.	1.6	12
156	Correlating structure and orbital occupation with the stability and mechanical properties of 3d transition metal carbides. Journal of Alloys and Compounds, 2022, 891, 161866.	2.8	12
157	Effect of electronegativity on electron surface scattering in thin metal layers. Applied Physics Letters, 2022, 120, .	1.5	12
158	Nanostaircases: An atomic shadowing instability during epitaxial CrN(001) layer growth. Applied Physics Letters, 2005, 87, 053107.	1.5	11
159	Band gap of epitaxial cubic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:mrow><mml:mrow><mml:mi mathvariant="normal">A</mml:mi><mml:msub><mml:mi mathvariant="normal">l</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi	1.1	11
160	Structural Stabilization and Piezoelectric Enhancement in Epitaxial (Ti_{1â^'}_xMg_x)_{0.25}Al_{0.75}N(0001) Layers. Advanced Functional Materials, 2020, 30, 2001915.	7.8	11
161	Van der Waals epitaxy and remote epitaxy of LiNbO3 thin films by pulsed laser deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	11
162	Epitaxial CrN(001) Grown and Analyzed In situ by XPS and UPS. I. Analysis of As-deposited Layers. Surface Science Spectra, 2000, 7, 250-261.	0.3	10

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163	Near-Zero Negative Real Permittivity in Far Ultraviolet: Extending Plasmonics and Photonics with B1-MoN_x. Journal of Physical Chemistry C, 2019, 123, 21120-21129.	1.5	10
164	First-principles prediction of electron grain boundary scattering in fcc metals. Applied Physics Letters, 2022, 120, .	1.5	10
165	Epitaxial VN(001) Grown and Analyzed In situ by XPS and UPS. I. Analysis of As-deposited Layers. Surface Science Spectra, 2000, 7, 221-232.	0.3	9
166	Epitaxial ScN(001) Grown and Analyzed In situ by XPS and UPS. II. Analysis of Ar+ Sputter Etched Layers. Surface Science Spectra, 2000, 7, 178-184.	0.3	9
167	Role of fast sputtered particles during sputter deposition: Growth of epitaxialGe0.99C0.01/Ge(001). Physical Review B, 2000, 62, 11203-11208.	1.1	9
168	Narrow interconnects: The most conductive metals. , 2020, , .		9
169	Electrochemical memristive devices based on submonolayer metal deposition. APL Materials, 2019, 7, 101121.	2.2	8
170	Tunable Infrared Plasmonic Properties of Epitaxial Ti_{1â€“x}Mg_xN(001) Layers. ACS Applied Materials & Interfaces, 2021, 13, 22738-22748.	4.0	8
171	Resistivity scaling in epitaxial MAX-phase Ti4SiC3(0001) layers. Journal of Applied Physics, 2021, 130, .	1.1	8
172	Epitaxial growth of cubic WC (001) on MgO(001). Journal of Alloys and Compounds, 2021, 860, 158403.	2.8	7
173	A Comparison of Auger Electron Spectra from Stoichiometric Epitaxial TiN(001) After (1) UHV Cleaving and (2) Ar+ Sputter Etching. Surface Science Spectra, 2000, 7, 93-100.	0.3	6
174	Bandgap and strain engineering in epitaxial rocksalt structure (Ti_{0.5}Mg_{0.5})_{1â^'x}Al_xN(001) semiconductors. Journal of Materials Chemistry C, 2020, 8, 12677-12688.	2.7	6
175	In Situ Transmission Electron Microscopy of High-Temperature Inconel-625 Corrosion by Molten Chloride Salts. Journal of the Electrochemical Society, 2021, 168, 051507.	1.3	6
176	Epitaxial MoC : Competition between cubic Î´-MoC (111) and hexagonal Î²-Mo2C(0001). Surface and Coatings Technology, 2021, 420, 127333.	2.2	6
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