List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Emergence of orbital two-channel Kondo effect in epitaxial TiN thin films. Solid State Communications, 2022, 341, 114547.	0.9	1
2	Laser-patterned carbon coatings on flexible and optically transparent plastic substrates for advanced biomedical sensing and implant applications. Journal of Materials Chemistry C, 2022, 10, 2965-2975.	2.7	25
3	Fabrication of Q-Carbon Nanostructures, Diamond and Their Composites with Wafer-Scale Integration. Crystals, 2022, 12, 615.	1.0	10
4	Formation of Q-carbon with wafer scale integration. Carbon, 2022, 196, 972-978.	5.4	8
5	Discovery of Double Helix and Impact on Nanoscale to Mesoscale Crystalline Structures. ACS Omega, 2022, 7, 25853-25859.	1.6	3
6	Synthesis of multifunctional microdiamonds on stainless steel substrates by chemical vapor deposition. Carbon, 2021, 171, 739-749.	5.4	21
7	Tunable n-Type Conductivity and Transport Properties of Cubic Boron Nitride via Carbon Doping. ACS Applied Electronic Materials, 2021, 3, 1359-1367.	2.0	10
8	Advances in laser-assisted conversion of polymeric and graphitic carbon into nanodiamond films. Nanotechnology, 2021, 32, .	1.3	12
9	Liquid phase regrowth of ã€^110〉 nanodiamond film by UV laser annealing of PTFE to generate dense CVD microdiamond film. Diamond and Related Materials, 2021, 117, 108481.	1.8	9
10	Enhanced nucleation and large-scale growth of CVD diamond via surface-modification of silicon-incorporated diamond-like carbon thin films. Diamond and Related Materials, 2021, 120, 108630.	1.8	11
11	Enhanced Vapor Transmission Barrier Properties via Silicon-Incorporated Diamond-Like Carbon Coating. Polymers, 2021, 13, 3543.	2.0	9
12	One-Step Formation of Reduced Graphene Oxide from Insulating Polymers Induced by Laser Writing Method. Crystals, 2021, 11, 1308.	1.0	11
13	Atomic-Scale Insights on Large-Misfit Heterointerfaces in LSMO/MgO/c-Al2O3. Crystals, 2021, 11, 1493.	1.0	5
14	Mechanism of strain relaxation: key to control of structural and electronic transitions in VO <sub>2</sub> thin-films. Materials Research Letters, 2020, 8, 16-22.	4.1	7
15	Evidence of weak antilocalization in epitaxial TiN thin films. Journal of Magnetism and Magnetic Materials, 2020, 498, 166094.	1.0	9
16	Nonequilibrium Structural Evolution of Q-Carbon and Interfaces. ACS Applied Materials & Amp; Interfaces, 2020, 12, 1330-1338.	4.0	23
17	Direct conversion of Teflon into nanodiamond films. Materials Research Letters, 2020, 8, 408-416.	4.1	7
18	Electron mobility modulation in graphene oxide by controlling carbon melt lifetime. Carbon, 2020,	5.4	32

170, 327-337.

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19	Volatile and non-volatile behavior of metal–insulator transition in VO2 through oxygen vacancies tunability for memory applications. Journal of Applied Physics, 2020, 128, .	1.1	17
20	Nanometer-Thick Hexagonal Boron Nitride Films for 2D Field-Effect Transistors. ACS Applied Nano Materials, 2020, 3, 7930-7941.	2.4	5
21	Conversion of h-BN into c-BN for tuning optoelectronic properties. Materials Advances, 2020, 1, 830-836.	2.6	9
22	Selective Liquid-Phase Regrowth of Reduced Graphene Oxide, Nanodiamond, and Nanoscale Q-Carbon by Pulsed Laser Annealing for Radiofrequency Devices. ACS Applied Nano Materials, 2020, 3, 5178-5188.	2.4	4
23	3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. Advanced Materials Interfaces, 2020, 7, 2000493.	1.9	18
24	Fabrication of ultrahard Q-carbon nanocoatings on AISI 304 and 316 stainless steels and subsequent formation of high-quality diamond films. Diamond and Related Materials, 2020, 104, 107742.	1.8	17
25	Characteristics of Diamond Deposition on Al <sub>2</sub> O <sub>3</sub> , Diamond-like Carbon, and Q-Carbon. ACS Applied Electronic Materials, 2020, 2, 1323-1334.	2.0	16
26	Structural evolution of laser-irradiated ultrananocrystalline diamond/amorphous carbon composite films prepared by coaxial arc plasma. Applied Physics Express, 2020, 13, 105503.	1.1	17
27	Non-equilibrium processing of ferromagnetic heavily reduced graphene oxide. Carbon, 2019, 153, 663-673.	5.4	15
28	Laser-induced structure transition of diamond-like carbon coated on cemented carbide and formation of reduced graphene oxide. MRS Communications, 2019, 9, 910-915.	0.8	12
29	Epitaxial Growth of Thin Films. , 2019, , .		6
30	Scale-up of Q‑carbon and nanodiamonds by pulsed laser annealing. Diamond and Related Materials, 2019, 99, 107531.	1.8	20
31	Nano-to-micro diamond formation by nanosecond pulsed laser annealing. Journal of Applied Physics, 2019, 126, 125307.	1.1	8
32	Formation and characterization of nano- and microstructures of twinned cubic boron nitride. Physical Chemistry Chemical Physics, 2019, 21, 1700-1710.	1.3	9
33	Reduced Graphene Oxide/Amorphous Carbon P–N Junctions: Nanosecond Laser Patterning. ACS Applied Materials & Interfaces, 2019, 11, 24318-24330.	4.0	18
34	Emergence of shallow energy levels in B-doped Q-carbon: A high-temperature superconductor. Acta Materialia, 2019, 174, 153-159.	3.8	10
35	Synthesis of diamond nanostructures from carbon nanotube and formation of diamond-CNT hybrid structures. Carbon, 2019, 150, 388-395.	5.4	40
36	Structure–property correlations in phase-pure B-doped Q-carbon high-temperature superconductor with a record <i>T</i> <sub>c</sub> = 55 K. Nanoscale, 2019, 11, 9141-9154.	2.8	5

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37	Direct conversion of carbon nanofibers into diamond nanofibers using nanosecond pulsed laser annealing. Physical Chemistry Chemical Physics, 2019, 21, 7208-7219.	1.3	4
38	Electrical Transition in Isostructural VO2 Thin-Film Heterostructures. Scientific Reports, 2019, 9, 3009.	1.6	28
39	Planar Hall effect and anisotropic magnetoresistance in semiconducting and conducting oxide thin films. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	5
40	Room-temperature ferromagnetism in epitaxial titanium nitride thin films. Acta Materialia, 2019, 166, 221-230.	3.8	23
41	Vacancy-Driven Robust Metallicity of Structurally Pinned Monoclinic Epitaxial VO <sub>2</sub> Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 3547-3554.	4.0	27
42	Reduced Graphene Oxide-Nanostructured Silicon Photosensors with High Photoresponsivity at Room Temperature. ACS Applied Nano Materials, 2019, 2, 2086-2098.	2.4	5
43	Tunable charge states of nitrogen-vacancy centers in diamond for ultrafast quantum devices. Carbon, 2019, 142, 662-672.	5.4	30
44	Structure-property correlations in thermally processed epitaxial LSMO films. Acta Materialia, 2019, 163, 189-198.	3.8	11
45	Diamond film growth by HFCVD on Q-carbon seeded substrate. Carbon, 2019, 141, 182-189.	5.4	19
46	Electron field emission from Q-carbon. Diamond and Related Materials, 2018, 86, 71-78.	1.8	35
47	High temperature superconductivity in distinct phases of amorphous B-doped Q-carbon. Journal of Applied Physics, 2018, 123, .	1.1	17
48	Room-Temperature Ferromagnetism and Extraordinary Hall Effect in Nanostructured Q-Carbon: Implications for Potential Spintronic Devices. ACS Applied Nano Materials, 2018, 1, 807-819.	2.4	46
49	Synthesis and Characterization of Quenched and Crystalline Phases: Q-Carbon, Q-BN, Diamond and Phase-Pure c-BN. Jom, 2018, 70, 456-463.	0.9	7
50	Structural Evolution of Q-Carbon and Nanodiamonds. Jom, 2018, 70, 450-455.	0.9	27
51	Q-carbon harder than diamond. MRS Communications, 2018, 8, 428-436.	0.8	36
52	Large-area diamond thin film on Q-carbon coated crystalline sapphire by HFCVD. Journal of Crystal Growth, 2018, 504, 17-25.	0.7	32
53	An optimized sample preparation approach for atomic resolution in situ studies of thin films. Microscopy Research and Technique, 2018, 81, 1250-1256.	1.2	8
54	Enhanced mechanical properties of Q-carbon nanocomposites by nanosecond pulsed laser annealing. Nanotechnology, 2018, 29, 45LT02.	1.3	34

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55	Stability of electron field emission in Q-carbon. MRS Communications, 2018, 8, 1343-1351.	0.8	19
56	Magnetic relaxation and three-dimensional critical fluctuations in B-doped Q-carbon – a high-temperature superconductor. Nanoscale, 2018, 10, 12665-12673.	2.8	6
57	Progress in Q-carbon and related materials with extraordinary properties. Materials Research Letters, 2018, 6, 353-364.	4.1	59
58	Electrochromic effect in Q-carbon. Applied Physics Letters, 2018, 112, .	1.5	10
59	Oxygen Effect on the Properties of Epitaxial (110) La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> by Defect Engineering. ACS Applied Materials & Interfaces, 2018, 10, 21001-21008.	4.0	19
60	Undercooling driven growth of Q-carbon, diamond, and graphite. MRS Communications, 2018, 8, 533-540.	0.8	29
61	Fundamental Discovery of Q-Phases and Direct Conversion of Carbon into Diamond and h-BN into c-BN. Minerals, Metals and Materials Series, 2017, , 219-228.	0.3	0
62	High-Temperature Superconductivity in Boron-Doped Q-Carbon. ACS Nano, 2017, 11, 5351-5357.	7.3	49
63	Exchange bias in Ba0.4Sr0.6TiO3/La0.7Sr0.3MnO3 heterostructures. AlP Advances, 2017, 7, .	0.6	Ο
64	Conversion of <i>p</i> to <i>n-</i> type reduced graphene oxide by laser annealing at room temperature and pressure. Journal of Applied Physics, 2017, 121, .	1.1	55
65	Room Temperature Growth of Epitaxial Titanium Nitride Films by Pulsed Laser Deposition. Crystal Growth and Design, 2017, 17, 6634-6640.	1.4	27
66	A novel high-temperature carbon-based superconductor: B-doped Q-carbon. Journal of Applied Physics, 2017, 122, .	1.1	22
67	Discovery of High-Temperature Superconductivity ( <i>T</i> <sub>c</sub> = 55 K) in B-Doped Q-Carbon. ACS Nano, 2017, 11, 11915-11922.	7.3	60
68	Novel synthesis and properties of pure and NV-doped nanodiamonds and other nanostructures. Materials Research Letters, 2017, 5, 242-250.	4.1	22
69	Discovery of Q-BN and Direct Conversion of h-BN into c-BN and Formation of Epitaxial c-BN/Diamond Heterostructures. MRS Advances, 2016, 1, 2573-2584.	0.5	2
70	Thin film bi-epitaxy and transition characteristics of TiO2/TiN buffered VO2 on Si(100) substrates. MRS Advances, 2016, 1, 2635-2640.	0.5	6
71	Diamagnetism to ferromagnetism in Sr-substituted epitaxial BaTiO3 thin films. Applied Physics Letters, 2016, 108, .	1.5	8
72	Research Update: Direct conversion of h-BN into pure c-BN at ambient temperatures and pressures in air. APL Materials, 2016, 4, .	2.2	34

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73	Multi-frequency ferromagnetic resonance investigation of nickel nanocubes encapsulated in diamagnetic magnesium oxide matrix. Journal of Applied Physics, 2016, 120, .	1.1	3
74	Stabilizing new bismuth compounds in thin film form. Journal of Materials Research, 2016, 31, 3530-3537.	1.2	8
75	Multifunctional epitaxial systems on silicon substrates. Applied Physics Reviews, 2016, 3, 031301.	5.5	30
76	Wafer scale integration of reduced graphene oxide by novel laser processing at room temperature in air. Journal of Applied Physics, 2016, 120, .	1.1	21
77	Direct conversion of h-BN into c-BN and formation of epitaxial c-BN/diamond heterostructures. Journal of Applied Physics, 2016, 119, .	1.1	31
78	Defect mediated room temperature ferromagnetism and resistance minima study in epitaxial ZnGa0.002Al0.02O transparent conducting oxide films. Journal Physics D: Applied Physics, 2016, 49, 345302.	1.3	2
79	Mechanical properties of copper/bronze laminates: Role of interfaces. Acta Materialia, 2016, 116, 43-52.	3.8	507
80	Two-Dimensional Layered Oxide Structures Tailored by Self-Assembled Layer Stacking via Interfacial Strain. ACS Applied Materials & Interfaces, 2016, 8, 16845-16851.	4.0	26
81	Q-carbon discovery and formation of single-crystal diamond nano- and microneedles and thin films. Materials Research Letters, 2016, 4, 118-126.	4.1	22
82	Structural, magnetic and magnetotransport properties of bi-epitaxial La0.7Sr0.3MnO3 (110) thin films integrated on Si (001). Acta Materialia, 2016, 106, 40-47.	3.8	10
83	Strain induced room temperature ferromagnetism in epitaxial magnesium oxide thin films. Journal of Applied Physics, 2015, 118, 165309.	1.1	7
84	Novel phase of carbon, ferromagnetism, and conversion into diamond. Journal of Applied Physics, 2015, 118, .	1.1	133
85	Research Update: Direct conversion of amorphous carbon into diamond at ambient pressures and temperatures in air. APL Materials, 2015, 3, .	2.2	45
86	Magnetic exchange coupling in bilayers of two epitaxial ferromagnetic oxides. Current Opinion in Solid State and Materials Science, 2015, 19, 301-304.	5.6	4
87	Room temperature ferromagnetism in epitaxial Cr2O3 thin films grown on r-sapphire. Journal of Applied Physics, 2015, 117, 193907.	1.1	19
88	Dependence of Semiconductor to Metal Transition of <scp>VO</scp> <sub>2</sub> (011)/NiO{100}/MgO{100}/TiN{100}/Si{100} Heterostructures on Thin Film Epitaxy and Nature of Strain. Journal of the American Ceramic Society, 2015, 98, 1201-1208.	1.9	8
89	Integration and structural analysis of strain relaxed bi-epitaxial zinc oxide(0001) thin film with silicon(100) using titanium nitride buffer layer. Journal of Applied Physics, 2014, 115, 043513.	1.1	3
90	Structural and resistance switching properties of epitaxial Pt/ZnO/TiN/Si(001) heterostructures. Journal of Applied Physics, 2014, 115, .	1.1	5

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91	Strain induced ferromagnetism in epitaxial Cr2O3 thin films integrated on Si(001). Applied Physics Letters, 2014, 105, .	1.5	33
92	Ga and Al doped zinc oxide thin films for transparent conducting oxide applications: Structure-property correlations. Journal of Applied Physics, 2014, 115, 023705.	1.1	7
93	Ferroelectric and ferromagnetic properties in BaTiO3 thin films on Si (100). Journal of Applied Physics, 2014, 116, .	1.1	24
94	Thermal Misfit Strain Relaxation in Ge/(001)Si Heterostructures. Journal of Electronic Materials, 2014, 43, 3196-3203.	1.0	2
95	Defect Characterization in Ge/(001)Si Epitaxial Films Grown by Reduced-Pressure Chemical Vapor Deposition. Journal of Electronic Materials, 2013, 42, 2888-2896.	1.0	6
96	Poisson Ratio of Epitaxial Germanium Films Grown on Silicon. Journal of Electronic Materials, 2013, 42, 40-46.	1.0	11
97	A New Class of Roomâ€Temperature Multiferroic Thin Films with Bismuthâ€Based Supercell Structure. Advanced Materials, 2013, 25, 1028-1032.	11.1	78
98	Deposition and characterization of nanostructured Cu <sub>2</sub> 0 thin-film for potential photovoltaic applications. Journal of Materials Research, 2013, 28, 1740-1746.	1.2	31
99	Research Updates: Epitaxial strain relaxation and associated interfacial reconstructions: The driving force for creating new structures with integrated functionality. APL Materials, 2013, 1, .	2.2	29
100	Controlled <i>p</i> -type to <i>n</i> -type conductivity transformation in NiO thin films by ultraviolet-laser irradiation. Journal of Applied Physics, 2012, 111, .	1.1	76
101	Thin film epitaxy and near bulk semiconductor to metal transition in VO <sub>2</sub> /NiO/YSZ/Si(001) heterostructures. Journal of Materials Research, 2012, 27, 3103-3109.	1.2	15
102	Defect-mediated ferromagnetism and controlled switching characteristics in ZnO. Journal of Materials Research, 2011, 26, 1298-1308.	1.2	21
103	Control of room-temperature defect-mediated ferromagnetism in VO2 films. Acta Materialia, 2011, 59, 6362-6368.	3.8	17
104	VO2 thin films: Defect mediation in room temperature ferromagnetic switching characteristics. Jom, 2011, 63, 29-33.	0.9	35
105	Electronic excitation induced controlled modifications of semiconductor-to-metal transition in epitaxial VO <sub>2</sub> thin films. Journal of Materials Research, 2011, 26, 2901-2906.	1.2	41
106	Mott transition in Ga-doped MgxZn1â^'xO: A direct observation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 171, 90-92.	1.7	4
107	Near bulk semiconductor to metal transition in epitaxial VO2 thin films. Applied Physics Letters, 2010, 97, 151912.	1.5	55
108	High work function (p-type NiO1+x)/Zn0.95Ga0.05O heterostructures for transparent conducting oxides. Journal Physics D: Applied Physics, 2010, 43, 105301.	1.3	15

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109	Effect of annealing on atomic ordering of amorphous ZrTaTiNbSi alloy. Applied Physics Letters, 2009, 95, 241905.	1.5	15
110	Raman studies of GaN/sapphire thin film heterostructures. Journal of Applied Physics, 2009, 106, .	1.1	68
111	Integration of VO2 Thin Films on Si(100) for Thermal Switching Devices Applications. Materials Research Society Symposia Proceedings, 2009, 1174, 19.	0.1	2
112	Optical and electrical properties of bandgap engineered gallium-doped films. Solid State Communications, 2009, 149, 1670-1673.	0.9	21
113	Defect-mediated room temperature ferromagnetism in vanadium dioxide thin films. Applied Physics Letters, 2009, 95, .	1.5	39
114	Magnetic and Electronic Properties of n-type (Al,Ga) co-doped Zn(Cu)O based Dilute Magnetic Semiconductors. Materials Research Society Symposia Proceedings, 2007, 999, 1.	0.1	0
115	Critical size for defects in nanostructured materials. Journal of Applied Physics, 2006, 100, 034309.	1.1	19
116	Co-doped ZnO dilute magnetic semiconductor. Journal of Electronic Materials, 2006, 35, 852-856.	1.0	27
117	Growth and Characterization of Mg0.15Zn0.85O Thin Films by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2006, 957, 1.	0.1	0
118	Microstructure and Electrical Property Correlations in Ga:ZnO Transparent Conducting Thin Films. Materials Research Society Symposia Proceedings, 2006, 957, 1.	0.1	0
119	Epitaxial growth of zinc oxide thin films on silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 117, 348-354.	1.7	42
120	New frontiers in thin film growth and nanomaterials. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 277-294.	1,1	8
121	New frontiers in thin film growth and nanomaterials. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2005, 36, 5-22.	1.0	14
122	Epitaxial Growth Of Nickel Nanocrystals By Domain Matching Epitaxy. Materials Research Society Symposia Proceedings, 2005, 877, 1.	0.1	0
123	The Effect of Interfacial Layers on High-Performance Gate Dielectrics Processed by RTP-ALD. Journal of the Electrochemical Society, 2004, 151, G507.	1.3	7
124	The Local Electronic structure at Grain Boundaries and Hetero- Interfaces in ZnO Thin Films Grown by Laser Deposition Materials Research Society Symposia Proceedings, 2002, 727, 1.	0.1	2
125	Structural and Electrical Properties of Colossal Magnetoresistive LSMO Thin Films Prepared by KrF Laser Ablation Method. Materials Research Society Symposia Proceedings, 2001, 666, 331.	0.1	2
126	Origins of stored enthalpy in cryomilled nanocrystalline Zn. Journal of Materials Research, 2001, 16, 3485-3495.	1.2	16

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127	On the grain size softening in nanocrystalline materials. Scripta Materialia, 2000, 42, 1025-1030.	2.6	362
128	Ferroelectric and Colossal Magnetoresistive Properties of a PbZr1-xTixO3/La1-xSrxMnO3Heterostructure Film. Japanese Journal of Applied Physics, 2000, 39, 5418-5420.	0.8	11
129	Combustion for the Synthesis of β-SiC and Diamond/SiC Composite. Materials Research Society Symposia Proceedings, 1993, 327, 221.	0.1	1
130	Mechanisms of Improvement of Fracture Strength in Laser-Surface-Modified Ceramics. Journal of the American Ceramic Society, 1989, 72, 1185-1191.	1.9	2
131	Investigation of Mechanical Properties of Chemically Vapor Infiltrated (CVI) Ceramic Matrix Composites. Ceramic Engineering and Science Proceedings, 0, , 281-291.	0.1	6
132	Effect of oxygen and fluorine plasma surface treatment of siliconâ€incorporated diamondâ€ike carbon coatings on cellular responses of mouse fibroblasts. International Journal of Applied Ceramic Technology, 0, , .	1.1	0