Thin films with nanometer-scale pillar microstructure

Journal of Materials Research
14, 3158-3163
DOI: 10.1557/jmr.1999.0423

#	Article	IF	Citations
1	Periodic magnetic microstructures by glancing angle deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1838-1844.	0.9	90
2	Porous thin films for thermal barrier coatings. Surface and Coatings Technology, 2001, 138, 185-191.	2.2	59
3	Field emission from carbon and silicon films with pillar microstructure. Thin Solid Films, 2001, 389, 1-4.	0.8	32
4	Thin film microstructure and thermal transport simulation using 3D-films. Thin Solid Films, 2001, 391, 88-100.	0.8	9
5	Periodic submicrometer structures by sputtering. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1813.	1.6	49
6	Microsprings and microcantilevers: studies of mechanical response. Journal of Micromechanics and Microengineering, 2001, 11, 582-588.	1.5	51
7	Fabrication and optical characterization of template-constructed thin films with chiral nanostructure. IEEE Nanotechnology Magazine, 2002, 1, 122-128.	1.1	17
8	Film Structure. , 2002, , 495-558.		82
9	Arrays of self-sealed microchambers and channels. Journal of Materials Chemistry, 2002, 12, 2348-2351.	6.7	21
10	Porous thin films for the characterization of atomic force microscope tip morphology. Thin Solid Films, 2002, 408, 79-86.	0.8	7
11	Vacuum evaporated porous silicon photonic interference filters. Applied Optics, 2003, 42, 4212.	2.1	81
12	Investigation of substrate rotation at glancing incidence on thin-film morphology. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2569.	1.6	57
13	Rugate filters grown by Glancing Angle Deposition. , 2003, , .		2
14	Controlled growth of periodic pillars by glancing angle deposition. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 23.	1.6	117
15	Toward realization of photonic bandgap materials with glancing angle deposition. , 2003, , .		0
16	Thin film/liquid crystal composite optical materials. , 2003, , .		0
17	Simulating structure and optical response of vacuum evaporated porous rugate filters. Journal of Applied Physics, 2004, 95, 3055-3062.	1.1	38
18	Birefringent omnidirectional reflector. Applied Optics, 2004, 43, 1570.	2.1	53

#	Article	IF	Citations
19	Growth of vacuum evaporated ultraporous silicon studied with spectroscopic ellipsometry and scanning electron microscopy. Journal of Applied Physics, 2005, 97, 013511.	1.1	55
20	Generation of fibrous aerosols from thin films. Journal of Aerosol Science, 2005, 36, 933-937.	1.8	6
21	Periodically Structured Glancing Angle Deposition Thin Films. IEEE Nanotechnology Magazine, 2005, 4, 269-277.	1.1	87
23	Surface Functionalization of Porous Nanostructured Metal Oxide Thin Films Fabricated by Glancing Angle Deposition. Chemistry of Materials, 2006, 18, 5260-5266.	3.2	35
24	A directed continuum model of micro- and nano-scale thin films. International Journal of Solids and Structures, 2006, 43, 1253-1275.	1.3	10
25	Study of the effect of changing the microstructure of titania layers on composite solar cell performance. Thin Solid Films, 2006, 511-512, 523-528.	0.8	20
26	The structure of Ta nanopillars grown by glancing angle deposition. Thin Solid Films, 2006, 515, 1223-1227.	0.8	59
27	Branched Ta nanocolumns grown by glancing angle deposition. Applied Physics Letters, 2006, 88, 203117.	1.5	68
28	Adsorption, desorption, and diffusion of nitrogen in a model nanoporous material. I. Surface limited desorption kinetics in amorphous solid water. Journal of Chemical Physics, 2007, 127, 184707.	1.2	64
29	Adsorption, desorption, and diffusion of nitrogen in a model nanoporous material. II. Diffusion limited kinetics in amorphous solid water. Journal of Chemical Physics, 2007, 127, 184708.	1.2	24
30	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
31	Birefringence enhancement in annealed TiO2 thin films. Journal of Applied Physics, 2007, 102, 013517.	1.1	55
32	Growth competition during glancing angle deposition of nanorod honeycomb arrays. Applied Physics Letters, 2007, 90, 093103.	1.5	65
33	Crystallinityâ€Controlled Germanium Nanowire Arrays: Potential Field Emitters. Advanced Functional Materials, 2008, 18, 1080-1088.	7.8	92
34	A Birefringent and Transparent Electrical Conductor. Advanced Functional Materials, 2008, 18, 2147-2153.	7.8	38
35	Multi-component nanostructure design by atomic shadowing. Thin Solid Films, 2008, 517, 1214-1218.	0.8	38
36	Development of two-level porosity during glancing angle deposition. Journal of Applied Physics, 2008, 103, .	1.1	44
37	Microstructures, surface areas, and oxygen absorption of Ti and Tiâ€"Zrâ€"V films grown using glancing-angle sputtering. Journal of Materials Research, 2008, 23, 579-587.	1.2	7

#	Article	IF	Citations
38	Ta nanotubes grown by glancing angle deposition. Journal of Vacuum Science & Technology B, 2008, 26, 678-681.	1.3	18
39	Oblique Angle Deposition of Columnar Niobium Films for Capacitor Application. Materials Transactions, 2008, 49, 1320-1326.	0.4	9
40	Sputter-Deposited Pt PEM Fuel Cell Electrodes: Particles vs Layers. Journal of the Electrochemical Society, 2009, 156, B614.	1.3	53
41	The morphology of organic nanocolumn arrays: Amorphous versus crystalline solids. Journal of Materials Research, 2009, 24, 1492-1497.	1.2	6
42	Needle-like LiFePO4 thin films prepared by an off-axis pulsed laser deposition technique. Thin Solid Films, 2009, 517, 2618-2622.	0.8	29
43	Formation of porous niobium films by oblique angle deposition: Influence of substrate morphology. Thin Solid Films, 2009, 517, 6711-6716.	0.8	11
44	Improved electrical properties of silicon-incorporated anodic niobium oxide formed on porous Nbâ€"Si substrate. Applied Surface Science, 2009, 255, 8383-8389.	3.1	9
45	The Effect of the Incident Collision Energy on the Porosity of Vapor-Deposited Amorphous Solid Water Films. Journal of Physical Chemistry B, 2009, 113, 4000-4007.	1.2	27
46	Patterned Silver Nanorod Array Substrates for Surface-Enhanced Raman Scattering. Applied Spectroscopy, 2009, 63, 1101-1106.	1.2	15
47	Morphology control of tungsten nanorods grown by glancing angle RF magnetron sputtering under variable argon pressure and flow rate. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4430-4437.	0.9	21
48	Nanorod PEM Fuel Cell Cathodes with Controlled Porosity. Journal of the Electrochemical Society, 2010, 157, B437.	1.3	20
49	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
50	Pore Formation by In Situ Etching of Nanorod PEM Fuel Cell Electrodes. Journal of the Electrochemical Society, 2010, 157, B113.	1.3	13
51	Controlled morphology of aluminum alloy nanopillar films: from nanohorns to nanoplates. Nanotechnology, 2010, 21, 395302.	1.3	6
52	Thermal Stability of Silver Nanorod Arrays. Chemistry of Materials, 2010, 22, 2184-2189.	3.2	21
53	Glancing Angle Deposition. , 2010, , 621-678.		63
54	Dielectric properties of anodic films on sputter-deposited Tiâ€"Si porous columnar films. Applied Surface Science, 2011, 257, 8295-8300.	3.1	7
55	Superhydrophobic hierarchical surfaces fabricated by anodizing of oblique angle deposited Alâ€"Nb alloy columnar films. Applied Surface Science, 2011, 257, 8282-8288.	3.1	19

#	Article	IF	Citations
56	Oblique-angle sputtered AlN nanocolumnar layer as a buffer layer in GaN-based LED. Journal of Luminescence, 2011, 131, 1234-1238.	1.5	9
57	Influence of substrate rotation speed on the nanostructure of sculptured Cu thin films. Vacuum, 2011, 85, 776-781.	1.6	18
58	Overcoming cap layer cracking for glancing-angle deposited films. Thin Solid Films, 2011, 519, 1923-1929.	0.8	8
59	Fractal characteristics and microstructure evolution of magnetron sputtering Cu thin films. Chinese Journal of Mechanical Engineering (English Edition), 2013, 26, 137-143.	1.9	2
62	The characteristic length study of Si spirals during growth. Computational Materials Science, 2014, 90, 148-152.	1.4	2
63	Electrical characterization of Ag:TiN thin films produced by glancing angle deposition. Materials Letters, 2014, 115, 136-139.	1.3	23
64	Dehydration, dehydrogenation, and condensation of alcohols on supported oxide catalysts based on cyclic (WO₃)₃ and (MoO₃)₃ clusters. Chemical Society Reviews, 2014, 43, 7664-7680.	18.7	99
65	Three-Dimensional Titanium Dioxide Nanomaterials. Chemical Reviews, 2014, 114, 9487-9558.	23.0	349
66	Study of the electrical behavior of nanostructured Tiâ€“Ag thin films, prepared by Glancing Angle Deposition. Materials Letters, 2015, 157, 188-192.	1.3	13
67	Effect of incident deposition angle on optical properties and surface roughness of TiO₂ thin films. Proceedings of SPIE, 2016, , .	0.8	1
68	Electrochemical characterization of nanostructured Ag:TiN thin films produced by glancing angle deposition on polyurethane substrates for bio-electrode applications. Journal of Electroanalytical Chemistry, 2016, 768, 110-120.	1.9	12
69	Influence of the sputtering pressure on the morphological features and electrical resistivity anisotropy of nanostructured titanium films. Applied Surface Science, 2017, 420, 681-690.	3.1	25
70	An outlook on tunable superhydrophobic nanostructural surfaces and their possible impact on ice mitigation. Progress in Organic Coatings, 2017, 112, 304-318.	1.9	34
71	Au-Encapsulated Fe Nanorods in Oxide Matrix with Tunable Magneto-Optic Coupling Properties. ACS Applied Materials & Interfaces, 2020, 12, 51827-51836.	4.0	16
72	Improving the Room-Temperature Ferromagnetism in ZnO and Low-Doped ZnO:Ag Films Using GLAD Sputtering. Materials, 2021, 14, 5337.	1.3	1
73	Nanoindentation of Microsprings and Microcantilevers. , 2002, , 35-42.		0
74	Sculptured Thin Films. , 2006, , 357-381.		1
75	Formation of Porous Aluminum Films with Isolated Columnar Structure Using Physical Vapor Deposition for Medium-Voltage and High-voltage Capacitors. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2009, 60, 166-169.	0.1	1

#	Article	IF	Citations
76	PVD techniques proffering avenues for fabrication of porous tungsten oxide (WO3) thin films: A review. Materials Science in Semiconductor Processing, 2022, 143, 106534.	1.9	31
77	Fabrication of zigzag and square spiral Cu nanostructures: Influence of substrate rotation on the structural, optical and electrical properties. Journal of Alloys and Compounds, 2022, 922, 166211.	2.8	0
78	Flexible multifunctional hard coatings based on chromium oxynitride for pressure-sensing applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 063101.	0.9	1