Gwo-Ching Wang

List of Publications by Year
in descending order

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98 papers	3,541 citations	126708 33 h-index	143772 57 g-index
98 all docs	98 docs citations	98 times ranked	4554 citing authors

#	Article	IF	Citations
1	Voltage-Dependent Barrier Height of Electron Transport through Iron Porphyrin Molecular Junctions. Journal of Physical Chemistry C, 2021, 125, 7350-7357.	1.5	1
2	Flexo-photovoltaic effect in MoS2. Nature Nanotechnology, 2021, 16, 894-901.	15.6	107
3	Domain boundaries in incommensurate epitaxial layers on weakly interacting substrates. Journal of Applied Physics, 2021, 130, 065301.	1.1	5
4	Tunable 2D Groupâ€III Metal Alloys. Advanced Materials, 2021, 33, e2104265.	11.1	14
5	Orientation domain dispersions in wafer scale epitaxial monolayer WSe2 on sapphire. Applied Surface Science, 2021, 567, 150798.	3.1	7
6	Monolayer MoS₂ on sapphire: an azimuthal reflection high-energy electron diffraction perspective. 2D Materials, 2021, 8, 025003.	2.0	26
7	Large scale epitaxial graphite grown on twin free nickel(111)/spinel substrate. CrystEngComm, 2020, 22, 119-129.	1.3	7
8	Contact potential induced carrier localization in nanometer-thin Cu/Ru, Cu/Co, and Cu/Mo superlattices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	1
9	High-Crystallinity Epitaxial Sb₂Se₃ Thin Films on Mica for Flexible Near-Infrared Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 35222-35231.	4.0	47
10	Epitaxial CdTe Thin Films on Mica by Vapor Transport Deposition for Flexible Solar Cells. ACS Applied Energy Materials, 2020, 3, 4589-4599.	2.5	24
11	Uniaxial magnetic anisotropy in three-bilayer Co/Cu and Co/Al superlattices. Thin Solid Films, 2019, 681, 32-40.	0.8	5
12	Large Metallic Vanadium Disulfide Ultrathin Flakes for Spintronic Circuits and Quantum Computing Devices. ACS Applied Nano Materials, 2019, 2, 3684-3694.	2.4	14
13	Vanadium disulfide flakes with nanolayered titanium disulfide coating as cathode materials in lithium-ion batteries. Nature Communications, 2019, 10, 1764.	5.8	73
14	Strain measurement of ultrathin epitaxial films using electron diffraction techniques. Journal of Applied Physics, 2019, 125, 082401.	1.1	6
15	Diffusion-Controlled Epitaxy of Large Area Coalesced WSe₂ Monolayers on Sapphire. Nano Letters, 2018, 18, 1049-1056.	4.5	197
16	van der Waals epitaxy of SnS film on single crystal graphene buffer layer on amorphous SiO2/Si. Applied Surface Science, 2018, 435, 759-768.	3.1	10
17	Analyses of orientational superlattice domains in epitaxial ZnTe thin films grown on graphene and mica. Journal of Applied Physics, 2018, 124, .	1.1	8
18	van der Waals Epitaxy of Antimony Islands, Sheets, and Thin Films on Single-Crystalline Graphene. ACS Nano, 2018, 12, 6100-6108.	7.3	38

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19	Nontrivial strength of van der Waals epitaxial interaction in soft perovskites. Physical Review Materials, 2018, 2, .	0.9	40
20	Metalorganic vapor phase epitaxy of large size CdTe grains on mica through chemical and van der Waals interactions. Physical Review Materials, 2018, 2, .	0.9	12
21	Naturally formed ultrathin V2O5 heteroepitaxial layer on VO2/sapphire(001) film. Applied Surface Science, 2017, 419, 365-372.	3.1	14
22	Revealing the Crystalline Integrity of Wafer-Scale Graphene on SiO₂/Si: An Azimuthal RHEED Approach. ACS Applied Materials & Interfaces, 2017, 9, 23081-23091.	4.0	27
23	van der Waals epitaxy of Ge films on mica. Journal of Applied Physics, 2017, 122, 185305.	1.1	20
24	A two-step dry process for Cs₂SnI₆ perovskite thin film. Materials Research Letters, 2017, 5, 540-546.	4.1	40
25	Enhanced van der Waals epitaxy via electron transfer enabled interfacial dative bond formation. Physical Review Materials, 2017, 1, .	0.9	4
26	van der Waals epitaxy of CdTe thin film on graphene. Applied Physics Letters, 2016, 109, .	1.5	24
27	Photon Transport in One-Dimensional Incommensurately Epitaxial CsPbX₃ Arrays. Nano Letters, 2016, 16, 7974-7981.	4.5	124
28	Reflection high-energy electron diffraction measurements of reciprocal space structure of 2D materials. Nanotechnology, 2016, 27, 485703.	1.3	21
29	Orientation epitaxy of Ge1â^'xSnxfilms grown on single crystal CaF2substrates. CrystEngComm, 2016, 18, 2757-2769.	1.3	3
30	Modular Approach for Metalâ€“Semiconductor Heterostructures with Very Large Interface Lattice Misfit: A First-Principles Perspective. Crystal Growth and Design, 2016, 16, 2328-2334.	1.4	7
31	A Method Toward Fabricating Semiconducting 3R-NbS₂ Ultrathin Films. Journal of Physical Chemistry C, 2015, 119, 19763-19771.	1.5	50
32	A simple growth method for Nb₂O₅ films and their optical properties. RSC Advances, 2015, 5, 36129-36139.	1.7	36
33	Single-Crystal CdTe Homojunction Structures for Solar Cell Applications. Journal of Electronic Materials, 2015, 44, 3118-3123.	1.0	12
34	Metal-enhanced Ge1â^'xSnx alloy film growth on glass substrates using a biaxial CaF2 buffer layer. CrystEngComm, 2014, 16, 8794-8804.	1.3	8
35	CdTe/ZnTe/GaAs Heterostructures for Single-Crystal CdTe Solar Cells. Journal of Electronic Materials, 2014, 43, 2895-2900.	1.0	25
36	Instrument response of reflection high energy electron diffraction pole figure. Applied Surface Science, 2014, 288, 458-465.	3.1	13

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37	Evidence of enhanced electron-phonon coupling in ultrathin epitaxial copper films. Applied Physics Letters, 2013, 103, .	1.5	31
38	Incident flux angle induced crystal texture transformation in nanostructured molybdenum films. Journal of Applied Physics, 2012, 112, 024303.	1.1	27
39	Layer-by-layer assembly of Zn(ii) and Ni(ii) 5,10,15,20-tetra(4-ethynylphenyl)porphyrin multilayers on Au using copper catalyzed azide-alkyne cycloaddition. RSC Advances, 2012, 2, 7513.	1.7	18
40	RHEED Pole Figure Measurements of Biaxial Thin Film Growth Front Evolution. Materials Research Society Symposia Proceedings, 2011, 1308, 40201.	0.1	0
41	Mechanical properties of porous methyl silsesquioxane and nanoclustering silica films using atomic force microscope. Journal of Porous Materials, 2010, 17, 11-18.	1.3	8
42	Reflection High-energy Electron Diffraction Study of Nanostructures: From Diffraction Patterns to Surface Pole Figure. Materials Research Society Symposia Proceedings, 2009, 1184, 62.	0.1	1
43	Novel Ultrathin Mg Nanoblades for Hydrogen Storage. Materials Research Society Symposia Proceedings, 2009, 1216, 1.	0.1	0
44	Growth of CdTe Films on Amorphous Substrates Using CaF2 Nanorods as a Buffer Layer. Journal of Electronic Materials, 2009, 38, 1600-1604.	1.0	6
45	Deformation of amorphous silicon nanostructures subjected to monotonic and cyclic loading. Journal of Materials Research, 2008, 23, 328-335.	1.2	13
46	In situ reflection high energy electron diffraction study of dehydrogenation process of Pd coated Mg nanoblades. Journal of Applied Physics, 2008, 104, 033534.	1.1	13
47	In situ reflection high energy electron diffraction surface pole figure study of biaxial texture evolution in anisotropic Mg nanoblades during shadowing growth. Journal of Applied Physics, 2007, 102, 014306.	1.1	34
48	Layer thickness dependence of CPP giant magnetoresistance in individualCoNiâˆ•Cumultilayer nanowires grown by electrodeposition. Physical Review B, 2007, 75, .	1.1	49
49	Power-law scaling during shadowing growth of nanocolumns by oblique angle deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 160-166.	0.9	22
50	Plasmaâ€Enhanced Atomic Layer Deposition of Palladium on a Polymer Substrate. Chemical Vapor Deposition, 2007, 13, 307-311.	1.4	32
51	Low temperature melting of copper nanorod arrays. Journal of Applied Physics, 2006, 99, 064304.	1.1	81
52	Field Angle and Thickness Dependence of Coercivity in Electrodeposited CoNiâ€“Cu Multilayer Nanowires. IEEE Transactions on Magnetics, 2006, 42, 2975-2977.	1.2	16
53	Atomic Layer Deposition of Pd on an Oxidized Metal Substrate. Chemical Vapor Deposition, 2006, 12, 290-294.	1.4	44
54	Texture of Ru columns grown by oblique angle sputter deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 235-245.	0.9	33

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55	Surface pole figures by reflection high-energy electron diffraction. Applied Physics Letters, 2006, 89, 241903.	1.5	24
56	Plasma-Assisted Atomic Layer Deposition of Palladium. Chemical Vapor Deposition, 2005, 11, 60-66.	1.4	63
57	Stress reduction in sputter deposited films using nanostructured compliant layers by high working-gas pressures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 986-990.	0.9	43
58	Enhanced cold field emission from â©100âª oriented Î²â€“W nanoemitters. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1048.	1.6	45
59	Real-time observation of initial stages of copper film growth on silicon oxide using reflection high-energy electron diffraction. Journal of Applied Physics, 2004, 96, 7071-7079.	1.1	30
60	Physical Self-Assembly And Nano-Patterning. Materials Research Society Symposia Proceedings, 2004, 849, 171.	0.1	3
61	â€œEnhanced Layer Coverage of Thin Films by Oblique Angle Depositionâ€• Materials Research Society Symposia Proceedings, 2004, 859, 64.	0.1	0
62	Asymmetry of magneto-optical Kerr effect loops of Co nano-columns grown by oblique incident angle deposition. Journal of Magnetism and Magnetic Materials, 2004, 283, 65-70.	1.0	19
63	Physical self-assembly and the nucleation of three-dimensional nanostructures by oblique angle deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1778-1784.	0.9	112
64	Metal-coated Si springs: Nanoelectromechanical actuators. Applied Physics Letters, 2004, 84, 3657-3659.	1.5	81
65	Stress reduction in tungsten films using nanostructured compliant layers. Journal of Applied Physics, 2004, 96, 5740-5746.	1.1	63
66	Substrate-Independent Palladium Atomic Layer Deposition. Chemical Vapor Deposition, 2003, 9, 258-264.	1.4	65
67	Î²-phase tungsten nanorod formation by oblique-angle sputter deposition. Applied Physics Letters, 2003, 83, 3096-3098.	1.5	116
68	Field-induced cation migration in Cu oxide films by in situ scanning tunneling microscopy. Applied Physics Letters, 2003, 82, 4672-4674.	1.5	13
69	Development of Experimental Techniques for Thermoelectric Properties Characterization of Low-Dimensional Structures. Materials Research Society Symposia Proceedings, 2003, 793, 244.	0.1	3
70	Retardation of oxidation in Co nanocolumns: Scanning tunneling microscopy study. Applied Physics Letters, 2002, 81, 4601-4603.	1.5	6
71	â€œNovel Mechanisms on the Growth Morphology of Filmsâ€œ. Materials Research Society Symposia Proceedings, 2002, 749, 1.	0.1	7
72	Fabrication and Imaging of Protein Crossover Structures. Materials Research Society Symposia Proceedings, 2002, 735, 361.	0.1	0

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73	Ultrafast optical switching properties of single-wall carbon nanotube polymer composites at 1.55 Î¼m. Applied Physics Letters, 2002, 81, 975-977.	1.5	425
74	FABRICATION OF Si NANOCOLUMNS AND Si SQUARE SPIRALS ON SELF-ASSEMBLED MONOLAYER COLLOID SUBSTRATES. International Journal of Nanoscience, 2002, 01, 87-97.	0.4	69
75	Novel Nano-Column and Nano-Flower Arrays by Glancing Angle Deposition. Nano Letters, 2002, 2, 351-354.	4.5	232
76	Frequency-dependent electrical transport in carbon nanotubes. Physical Review B, 2001, 64, .	1.1	34
77	Reflection high-energy electron diffraction from carbon nanotubes. Physical Review B, 2001, 64, .	1.1	21
78	Anisotropic scaling of hard disk surface structures. Journal of Applied Physics, 2000, 88, 3361-3366.	1.1	9
79	Kinetic Roughening in Polymer Film Growth by Vapor Deposition. Physical Review Letters, 2000, 85, 3229-3232.	2.9	84
80	In situmeasurement of thickness dependent electrical resistance of ultrathin Co films on SiO2/Si(111) substrate. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2992-2996.	0.9	14
81	Monte Carlo simulation of submonolayer vapor-deposition polymerization. Physical Review E, 1999, 60, 4310-4318.	0.8	14
82	Magnetization reversal of a thin polycrystalline cobalt film measured by the magneto-optic Kerr effect (MOKE) technique and field-dependent magnetic force microscopy. Journal of Magnetism and Magnetic Materials, 1999, 204, 79-89.	1.0	14
83	Characterization of pitting corrosion in aluminum films by light scattering. Applied Physics Letters, 1998, 73, 2432-2434.	1.5	17
84	Characterization of random rough surfaces by in-plane light scattering. Journal of Applied Physics, 1998, 84, 2571-2582.	1.1	36
85	A setup combining four-point probe and surface magneto-optical Kerr effect for measurements of magnetotransport and magnetic properties of ultrathin films in ultrahigh vacuum. Review of Scientific Instruments, 1998, 69, 1811-1813.	0.6	5
86	Effect of interface roughness on hysteresis loops of ultrathin Co films from 2 to 30 ML on Cu(001) surfaces. Surface Science, 1997, 373, 181-194.	0.8	70
87	In-Situ Characterization of Growth and Intermixing at a Heteroepitaxial Interface: Fe on Au(001). Materials Research Society Symposia Proceedings, 1993, 318, 13.	0.1	0
88	Morphology and Magnetic Phase Transitions of Monolayer-Range Fe Films on Au(001). Materials Research Society Symposia Proceedings, 1991, 231, 311.	0.1	0
89	Highâ€“Resolution Low Energy Electron Diffraction Study of Surface Instabilities and Growth Dynamics. Materials Research Society Symposia Proceedings, 1991, 237, 49.	0.1	0
90	Vacancy-induced disordering in the Pb(100) surface. Physical Review B, 1991, 44, 1306-1310.	1.1	30

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91	Near-surface stoichiometry of high temperature superconducting YBaCuO thin films. Journal of Materials Research, 1990, 5, 1392-1396.	1.2	3
92	High-resolution low-energy electron diffraction study of Pb(110) surface roughening transition. Physical Review Letters, 1989, 63, 1621-1624.	2.9	99
93	Effect of Substrate Misorientation on Heteroepitaxy with Large Lattice Mismatch: Ag/Si(111). Materials Research Society Symposia Proceedings, 1989, 160, 225.	0.1	2
94	Defect Structure Analysis of Thick Epitaxial Films with Very Large Lattice Mismatch: Ag/Si(1l1) and Ag/Si(001).. Materials Research Society Symposia Proceedings, 1988, 138, 545.	0.1	2
95	Epitaxial Growth of Thick Ag/Si(111) Films. Materials Research Society Symposia Proceedings, 1987, 102, 271.	0.1	10
96	Physical realization of two-dimensional Ising critical phenomena: Oxygen chemisorbed on the W(112) surface. Physical Review B, 1985, 31, 5918-5922.	1.1	55
97	Quantitative island size determination in the chemisorbed layer W(110)p(2Ã—1)â€"O. Surface Science, 1981, 107, 494-518.	0.8	26
98	Quantitative island size determination in the chemisorbed layer W(110) p(2 Ã— 1)-O. Surface Science, 1979, 81, 69-89.	0.8	79