Kostas Sarakinos

List of Publications by Year
in descending order

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68 papers	3,131 citations	249298 26 h-index	175968 55 g-index
71 all docs	71 docs citations	71 times ranked	2164 citing authors

#	Article	IF	Citations
1	Manipulation of thin metal film morphology on weakly interacting substrates via selective deployment of alloying species. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	6
2	On the effect of copper as wetting agent during growth of thin silver films on silicon dioxide substrates. Applied Surface Science, 2021, 538, 148056.	3.1	12
3	Exploring the Interface Landscape of Noble Metals on Epitaxial Graphene. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000673.	0.8	9
4	Energetic bombardment and defect generation during magnetron-sputter-deposition of metal layers on graphene. Applied Surface Science, 2021, 566, 150661.	3.1	8
5	Clustering and Morphology Evolution of Gold on Nanostructured Surfaces of Silicon Carbide: Implications for Catalysis and Sensing. ACS Applied Nano Materials, 2021, 4, 1282-1293.	2.4	10
6	Room-temperature diffusion of metal clusters on graphene. Physical Chemistry Chemical Physics, 2021, 23, 13087-13094.	1.3	6
7	Silver nanoparticle array on weakly interacting epitaxial graphene substrate as catalyst for hydrogen evolution reaction under neutral conditions. Applied Physics Letters, 2021, 119, 153902.	1.5	2
8	Manipulation of epitaxial graphene towards novel properties and applications. Materials Today: Proceedings, 2020, 20, 37-45.	0.9	2
9	Synthesis of thin films and coatings by high power impulse magnetron sputtering. , 2020, , 333-374.		6
10	Probing the uniformity of silver-doped epitaxial graphene by micro-Raman mapping. Physica B: Condensed Matter, 2020, 580, 411751.	1.3	10
11	Interplay between thin silver films and epitaxial graphene. Surface and Coatings Technology, 2020, 381, 125200.	2.2	6
12	Anomalous versus Normal Room-Temperature Diffusion of Metal Adatoms on Graphene. Journal of Physical Chemistry Letters, 2020, 11, 8930-8936.	2.1	14
13	In Situ and Real-Time Nanoscale Monitoring of Ultra-Thin Metal Film Growth Using Optical and Electrical Diagnostic Tools. Nanomaterials, 2020, 10, 2225.	1.9	17
14	Manipulation of thin silver film growth on weakly interacting silicon dioxide substrates using oxygen as a surfactant. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	24
15	The effect of kinetics on intrinsic stress generation and evolution in sputter-deposited films at conditions of high atomic mobility. Journal of Applied Physics, 2020, 127, .	1.1	11
16	Coalescence dynamics of 3D islands on weakly-interacting substrates. Scientific Reports, 2020, 10, 2031.	1.6	18
17	3D-to-2D Morphology Manipulation of Sputter-Deposited Nanoscale Silver Films on Weakly Interacting Substrates via Selective Nitrogen Deployment for Multifunctional Metal Contacts. ACS Applied Nano Materials, 2020, 3, 4728-4738.	2.4	38
18	Semi-Empirical Force-Field Model for the Ti1â^'xAlxN (0 â‰ x â‰ 1) System. Materials, 2019, 12, 215.	1.3	22

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19	Dynamics of 3D-island growth on weakly-interacting substrates. Applied Surface Science, 2019, 488, 383-390.	3.1	20
20	A review on morphological evolution of thin metal films on weakly-interacting substrates. Thin Solid Films, 2019, 688, 137312.	0.8	22
21	Atomic-scale diffusion rates during growth of thin metal films on weakly-interacting substrates. Scientific Reports, 2019, 9, 6640.	1.6	35
22	Structure formation in Ag-X (X = Au, Cu) alloys synthesized far-from-equilibrium. Journal of Applied Physics, 2018, 123, .	1.1	7
23	Formation and morphological evolution of self-similar 3D nanostructures on weakly interacting substrates. Physical Review Materials, 2018, 2, .	0.9	28
24	Synthesis of tunable plasmonic metal-ceramic nanocomposite thin films by temporally modulated sputtered fluxes. Journal of Applied Physics, 2017, 121, .	1.1	6
25	Scaling of elongation transition thickness during thin-film growth on weakly interacting substrates. Applied Physics Letters, 2017, 111, .	1.5	13
26	Synthesis of hydrogenated diamondlike carbon thin films using neonâ€“acetylene based high power impulse magnetron sputtering discharges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, 061504.	0.9	18
27	Compressive intrinsic stress originates in the grain boundaries of dense refractory polycrystalline thin films. Journal of Applied Physics, 2016, 119, .	1.1	44
28	Theoretical and experimental study of metastable solid solutions and phase stability within the immiscible Ag-Mo binary system. Journal of Applied Physics, 2016, 119, .	1.1	14
29	A kinetic model for stress generation in thin films grown from energetic vapor fluxes. Journal of Applied Physics, 2016, 119, .	1.1	67
30	Atomic arrangement in immiscible Agâ€“Cu alloys synthesized far-from-equilibrium. Acta Materialia, 2016, 110, 114-121.	3.8	28
31	Resolving the Nanostructure of Self Organized Thin Films using Corrected Scanning Transmission Electron Microscopy. MRS Advances, 2016, 1, 1749-1754.	0.5	0
32	Coalescence-controlled and coalescence-free growth regimes during deposition of pulsed metal vapor fluxes on insulating surfaces. Journal of Applied Physics, 2015, 117, .	1.1	19
33	Double in-plane alignment in biaxially textured thin films. Applied Physics Letters, 2014, 105, .	1.5	2
34	Dynamic competition between island growth and coalescence in metal-on-insulator deposition. Applied Physics Letters, 2014, 105, .	1.5	29
35	Atomistic view on thin film nucleation and growth by using highly ionized and pulsed vapour fluxes. Surface and Coatings Technology, 2014, 257, 326-332.	2.2	16
36	Principles for designing sputtering-based strategies for high-rate synthesis of dense and hard hydrogenated amorphous carbon thin films. Diamond and Related Materials, 2014, 44, 117-122.	1.8	16

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37	Deposition of yttria-stabilized zirconia thin films by high power impulse magnetron sputtering and pulsed magnetron sputtering. Surface and Coatings Technology, 2014, 240, 1-6.	2.2	24
38	Unravelling the physical mechanisms that determine microstructural evolution of ultrathin Volmer-Weber films. Journal of Applied Physics, 2014, 116, .	1.1	34
39	Atom insertion into grain boundaries and stress generation in physically vapor deposited films. Applied Physics Letters, 2013, 103, .	1.5	68
40	Tilt of the columnar microstructure in off-normally deposited thin films using highly ionized vapor fluxes. Journal of Applied Physics, 2013, 113, .	1.1	28
41	Time-domain and energetic bombardment effects on the nucleation and coalescence of thin metal films on amorphous substrates. Journal Physics D: Applied Physics, 2013, 46, 215303.	1.3	19
42	On the high temperature stability of Î³-Al2O3/Ti0.33Al0.67N coated WCâ€“Co cutting inserts. International Journal of Materials Research, 2012, 103, 1509-1516.	0.1	0
43	An introduction to thin film processing using high-power impulse magnetron sputtering. Journal of Materials Research, 2012, 27, 780-792.	1.2	244
44	Growth of Ti-C nanocomposite films by reactive high power impulse magnetron sputtering under industrial conditions. Surface and Coatings Technology, 2012, 206, 2396-2402.	2.2	58
45	Influence of ionization degree on film properties when using high power impulse magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	28
46	A strategy for increased carbon ionization in magnetron sputtering discharges. Diamond and Related Materials, 2012, 23, 1-4.	1.8	97
47	Exploring the potential of high power impulse magnetron sputtering for growth of diamond-like carbon films. Surface and Coatings Technology, 2012, 206, 2706-2710.	2.2	91
48	Hysteresis and process stability in reactive high power impulse magnetron sputtering of metal oxides. Thin Solid Films, 2011, 519, 7779-7784.	0.8	82
49	<i>Ab initio</i> molecular dynamics of Al irradiation-induced processes during Al2O3 growth. Applied Physics Letters, 2011, 98, .	1.5	34
50	Ionized physical vapor deposited Al₂O₃films: Does subplantation favor formation of Î±â€Al₂O₃?. Physica Status Solidi - Rapid Research Letters, 2010, 4, 154-156.	1.2	36
51	High power pulsed magnetron sputtering: A review on scientific and engineering state of the art. Surface and Coatings Technology, 2010, 204, 1661-1684.	2.2	854
52	On the phase formation of sputtered hafnium oxide and oxynitride films. Journal of Applied Physics, 2010, 108, .	1.1	35
53	<i>Ab initio</i>study of effects of substitutional additives on the phase stability of Î³-alumina. Journal of Physics Condensed Matter, 2010, 22, 505502.	0.7	22
54	Low temperature synthesis of Î±-Al₂O₃ films by high-power plasma-assisted chemical vapour deposition. Journal Physics D: Applied Physics, 2010, 43, 325202.	1.3	25

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55	High power pulsed magnetron sputtering: Fundamentals and applications. Journal of Alloys and Compounds, 2009, 483, 530-534.	2.8	111
56	On the phase formation of titanium oxide films grown by reactive high power pulsed magnetron sputtering. Journal Physics D: Applied Physics, 2009, 42, 115204.	1.3	57
57	On the relationship between the peak target current and the morphology of chromium nitride thin films deposited by reactive high power pulsed magnetron sputtering. Journal Physics D: Applied Physics, 2009, 42, 015304.	1.3	117
58	The effect of the microstructure and the surface topography on the electrical properties of thin Ag films deposited by high power pulsed magnetron sputtering. Surface and Coatings Technology, 2008, 202, 2323-2327.	2.2	23
59	Process stabilization and enhancement of deposition rate during reactive high power pulsed magnetron sputtering of zirconium oxide. Surface and Coatings Technology, 2008, 202, 5033-5035.	2.2	73
60	The effect of the backscattered energetic atoms on the stress generation and the surface morphology of reactively sputtered vanadium nitride films. Thin Solid Films, 2008, 516, 4568-4573.	0.8	6
61	A semi-quantitative model for the deposition rate in non-reactive high power pulsed magnetron sputtering. Journal Physics D: Applied Physics, 2008, 41, 215301.	1.3	20
62	Tailoring of structure formation and phase composition in reactively sputtered zirconium oxide films using nitrogen as an additional reactive gas. Journal of Applied Physics, 2008, 103, 083306.	1.1	16
63	The role of backscattered energetic atoms in film growth in reactive magnetron sputtering of chromium nitride. Journal Physics D: Applied Physics, 2007, 40, 778-785.	1.3	19
64	Process characteristics and film properties upon growth of TiOxfilms by high power pulsed magnetron sputtering. Journal Physics D: Applied Physics, 2007, 40, 2108-2114.	1.3	123
65	On the deposition rate in a high power pulsed magnetron sputtering discharge. Applied Physics Letters, 2006, 89, 154104.	1.5	149
66	Investigation of bilayer period and individual layer thickness of CrN/TiN superlattices by ellipsometry and X-ray techniques. Surface and Coatings Technology, 2006, 200, 6176-6180.	2.2	15
67	Structural factors determining the nanomechanical performance of transition metal nitride films. Materials Research Society Symposia Proceedings, 2004, 843, 781.	0.1	1
68	The effect of crystal structure and morphology on the optical properties of chromium nitride thin films. Surface and Coatings Technology, 2004, 180-181, 637-641.	2.2	17