Erik Lewin

List of Publications by Year
in descending order

68 papers	2,467 citations	201575 27 h-index	206029 48 g-index
69 all docs	69 docs citations	69 times ranked	2306 citing authors

#	Article	IF	Citations
1	Deposition and characterization of ternary thin films within the Tiâ€"Alâ€"C system by DC magnetron sputtering. Journal of Crystal Growth, 2006, 291, 290-300.	0.7	212
2	Sputter deposition of transition-metal carbide films â€" A critical review from a chemical perspective. Thin Solid Films, 2013, 536, 1-24.	0.8	209
3	On the origin of a third spectral component of C1s XPS-spectra for nc-TiC/a-C nanocomposite thin films. Surface and Coatings Technology, 2008, 202, 3563-3570.	2.2	160
4	Structural, mechanical and electrical-contact properties of nanocrystalline-NbC/amorphous-C coatings deposited by magnetron sputtering. Surface and Coatings Technology, 2011, 206, 354-359.	2.2	107
5	Uptake of Fluoride from Aqueous Solution on Nano-Sized Hydroxyapatite: Examination of a Fluoridated Surface Layer. Environmental Science & Technology, 2012, 46, 802-809.	4.6	105
6	Nanocomposite nc-TiCâˆ•a-C thin films for electrical contact applications. Journal of Applied Physics, 2006, 100, 054303.	1.1	102
7	Synthesis and characterization of multicomponent (CrNbTaTiW)C films for increased hardness and corrosion resistance. Materials and Design, 2018, 149, 51-62.	3.3	99
8	Design of Nanocomposite Low-Friction Coatings. Advanced Functional Materials, 2007, 17, 1611-1616.	7.8	84
9	Influence of sputter damage on the XPS analysis of metastable nanocomposite coatings. Surface and Coatings Technology, 2009, 204, 455-462.	2.2	84
10	Multi-component and high-entropy nitride coatingsâ€"A promising field in need of a novel approach. Journal of Applied Physics, 2020, 127, .	1.1	77
11	Comparison of Alâ€"Siâ€"N nanocomposite coatings deposited by HIPIMS and DC magnetron sputtering. Surface and Coatings Technology, 2013, 232, 680-689.	2.2	67
12	Electronic structure and chemical bonding of nanocrystalline-TiC/amorphous-C nanocomposites. Physical Review B, 2009, 80, .	1.1	62
13	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
14	Multicomponent Hf-Nb-Ti-V-Zr nitride coatings by reactive magnetron sputter deposition. Surface and Coatings Technology, 2018, 349, 529-539.	2.2	58
15	Design of carbide-based nanocomposite thin films by selective alloying. Surface and Coatings Technology, 2011, 206, 583-590.	2.2	45
16	High-rate deposition of amorphous and nanocomposite Tiâ€"Siâ€"C multifunctional coatings. Surface and Coatings Technology, 2010, 205, 299-305.	2.2	42
17	Multi-component (Al,Cr,Nb,Y,Zr)N thin films by reactive magnetron sputter deposition for increased hardness and corrosion resistance. Thin Solid Films, 2020, 693, 137685.	0.8	41
18	Magnetron sputtering of Zrâ€"Siâ€"C thin films. Thin Solid Films, 2012, 520, 6375-6381.	0.8	37

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19	Microstructure and mechanical, electrical, and electrochemical properties of sputter-deposited multicomponent (TiNbZrTa)Nx coatings. Surface and Coatings Technology, 2020, 389, 125651.	2.2	37
20	Design of the lattice parameter of embedded nanoparticles. Chemical Physics Letters, 2010, 496, 95-99.	1.2	33
21	Synthesis and characterization of MoB2â^'x thin films grown by nonreactive DC magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	32
22	Carbon-containing multi-component thin films. Thin Solid Films, 2019, 688, 137411.	0.8	31
23	Influence of Deposition Temperature on the Phase Evolution of HfNbTiVZr High-Entropy Thin Films. Materials, 2019, 12, 587.	1.3	31
24	Influence of N content on structure and mechanical properties of multi-component Al-Cr-Nb-Y-Zr based thin films by reactive magnetron sputtering. Surface and Coatings Technology, 2020, 389, 125614.	2.2	31
25	Microstructure evolution of Tiâ€"Siâ€"Câ€"Ag nanocomposite coatings deposited by DC magnetron sputtering. Acta Materialia, 2010, 58, 6592-6599.	3.8	30
26	Industrialisation Study of Nanocomposite ncâ€TiC/aâ€C Coatings for Electrical Contact Applications. Plasma Processes and Polymers, 2009, 6, S928.	1.6	28
27	Synthesis, structure and properties of Ni-alloyed TiCx-based thin films. Journal of Materials Chemistry, 2010, 20, 5950.	6.7	27
28	Tuning structure and mechanical properties of Ta-C coatings by N-alloying and vacancy population. Scientific Reports, 2018, 8, 17669.	1.6	27
29	Modified high power impulse magnetron sputtering process for increased deposition rate of titanium. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	26
30	N-TiO2/Cu-TiO2 double-layer films: Impact of stacking order on photocatalytic properties. Journal of Catalysis, 2017, 353, 116-122.	3.1	25
31	Hard and crack resistant carbon supersaturated refractory nanostructured multicomponent coatings. Scientific Reports, 2018, 8, 14508.	1.6	25
32	Spectral artefacts post sputter-etching and how to cope with them â€" A case study of XPS on nitride-based coatings using monoatomic and cluster ion beams. Applied Surface Science, 2018, 442, 487-500.	3.1	24
33	An investigation of c-HiPIMS discharges during titanium deposition. Surface and Coatings Technology, 2014, 258, 631-638.	2.2	21
34	Structure and properties of sputter-deposited Al-Sn-N thin films. Journal of Alloys and Compounds, 2016, 682, 42-51.	2.8	21
35	Structure and properties of Crâ€"C/Ag films deposited by magnetron sputtering. Surface and Coatings Technology, 2015, 281, 184-192.	2.2	20
36	Synthesis and characterisation of Mo-B-C thin films deposited by non-reactive DC magnetron sputtering. Surface and Coatings Technology, 2017, 309, 506-515.	2.2	20

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37	Enhanced photoelectrochemical performance of atomic layer deposited Hf-doped ZnO. Surface and Coatings Technology, 2020, 385, 125352.	2.2	20
38	Thermal conductivity of hard oxynitride coatings. Thin Solid Films, 2013, 549, 232-238.	0.8	19
39	Flow hydrogenation of p-nitrophenol with nano-Ag/Al₂O₃. RSC Advances, 2016, 6, 87564-87568.	1.7	19
40	Temperature-dependent structural and magnetic properties of R2MMnO6 double perovskites (Râ€‰=â€‰Dy, Gd;) Tj ETQq0 0 0 rgBT /	1.1	19
41	Growth and structural properties of Mg:C thin films prepared by magnetron sputtering. Thin Solid Films, 2010, 518, 4225-4230.	0.8	18
42	Carbide and nanocomposite thin films in the Tiâ€"Ptâ€"C system. Thin Solid Films, 2010, 518, 5104-5109.	0.8	18
43	Hard wear-resistant coatings with anisotropic thermal conductivity for high thermal load applications. Journal of Applied Physics, 2014, 116, .	1.1	18
44	Sonogashira coupling reaction over supported gold nanoparticles: Influence of support and catalyst synthesis route. Applied Catalysis A: General, 2015, 503, 69-76.	2.2	18
45	Friction and contact resistance of nanocomposite Tiâ€"Niâ€"C coatings. Wear, 2011, 270, 555-566.	1.5	17
46	Unveiling the role of bisulfide in the photocatalytic splitting of H2S in aqueous solutions. Applied Catalysis B: Environmental, 2020, 270, 118886.	10.8	17
47	Conductive nanocomposite ceramics as tribological and electrical contact materials. EPJ Applied Physics, 2010, 49, 22902.	0.3	15
48	Carbon release by selective alloying of transition metal carbides. Journal of Physics Condensed Matter, 2011, 23, 355401.	0.7	15
49	Nanocomposite Alâ€"Geâ€"N thin films and their mechanical and optical properties. Journal of Materials Chemistry, 2012, 22, 16761.	6.7	15
50	Experimental and theoretical evidence of charge transfer in multi-component alloys â€" how chemical interactions reduce atomic size mismatch. Materials Chemistry Frontiers, 2021, 5, 5746-5759.	3.2	14
51	Influence of carbon on microstructure and mechanical properties of magnetron sputtered TaW coatings. Materials and Design, 2020, 196, 109070.	3.3	11
52	Influence of oxygen content on structure and material properties of reactively sputtered Al-Ge-O-N thin films. Journal of Alloys and Compounds, 2018, 738, 515-527.	2.8	10
53	Influence of the nitrogen content on the corrosion resistances of multicomponent AlCrNbYZrN coatings. Corrosion Science, 2021, 188, 109557.	3.0	9
54	Wear-resistant magnetic thin film material based on aTi1â^'xFexC1â^'ynanocomposite alloy. Physical Review B, 2010, 81, .	1.1	8

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55	Ni and Ti diffusion barrier layers between Tiâ€"Siâ€"C and Tiâ€"Siâ€"Câ€"Ag nanocomposite coatings and Cu-based substrates. Surface and Coatings Technology, 2012, 206, 2558-2565.	2.2	7
56	Effect of <i>in situ</i> electric-field-assisted growth on antiphase boundaries in epitaxial <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Fe</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> thin films on MgO. Physical Review Materials, 2018, 2, .	0.9	6
57	Continuous-Flow Hydrogenation of D-Xylose with Bimetallic Ruthenium Catalysts on Micrometric Alumina. Synthesis and Catalysis Open Access, 2017, 02, .	0.4	5
58	Synthesis and Characterisation of Nanocomposite Mo-Fe-B Thin Films Deposited by Magnetron Sputtering. Materials, 2021, 14, 1739.	1.3	4
59	Magnetron sputtering of carbon supersaturated tungsten films â€" A chemical approach to increase strength. Materials and Design, 2021, 208, 109874.	3.3	4
60	Optical and electrical properties of hard (Hf,Nb,Ti,V,Zr)Nx thin films. Vacuum, 2021, 193, 110517.	1.6	4
61	On the structural and magnetic properties of the double perovskite $$hbox {Nd}_{2}hbox {NiMnO}_{6}$$. Journal of Materials Science: Materials in Electronics, 2019, 30, 16571-16578.	1.1	3
62	Recoverable and Reusable Polymer Microbead-Supported Metal Nanocatalysts for Redox Chemical Transformations. ACS Applied Nano Materials, 2020, 3, 1722-1730.	2.4	3
63	Contact Resistance of Ti-Si-C-Ag and Ti-Si-C-Ag-Pd Nanocomposite Coatings. Journal of Electronic Materials, 2012, 41, 560-567.	1.0	2
64	In Situ Formation of Ge Nanoparticles by Annealing of Al-Ge-N Thin Films Followed by HAXPES and XRD. Inorganic Chemistry, 2019, 58, 11100-11109.	1.9	2
65	Deposition of Ti-Si-C-Ag Nanocomposite Coatings as Electrical Contact Material. , 2010, , .		1
66	Selective photocatalytic oxidation of 3-pyridinemethanol on platinized acid/base modified TiO2. Catalysis Science and Technology, 2021, 11, 4549-4559.	2.1	1
67	Surface analysis of nickel nanomaterials electrodeposited on graphite surface. Micro and Nano Letters, 2019, 14, 1233-1237.	0.6	1
68	Tetragonal distortion in magnetron sputtered bcc-W films with supersaturated carbon. Materials and Design, 2022, 214, 110422.	3.3	1