

Alfred G Ludwig

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284
papers

6,713
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35
h-index

69
g-index

289
ext. papers

7,884
ext. citations

5.4
avg, IF

6.17
L-index

#	Paper	IF	Citations
284	Oxygen and hydrogen evolution reactions on Ru, RuO ₂ , Ir, and IrO ₂ thin film electrodes in acidic and alkaline electrolytes: A comparative study on activity and stability. <i>Catalysis Today</i> , 2016 , 262, 170-180	5.3	693
283	Combinatorial search of thermoelastic shape-memory alloys with extremely small hysteresis width. <i>Nature Materials</i> , 2006 , 5, 286-90	27	471
282	The stability number as a metric for electrocatalyst stability benchmarking. <i>Nature Catalysis</i> , 2018 , 1, 508-515	36.5	281
281	Identification of Quaternary Shape Memory Alloys with Near-Zero Thermal Hysteresis and Unprecedented Functional Stability. <i>Advanced Functional Materials</i> , 2010 , 20, 1917-1923	15.6	245
280	Predicting synthesizability. <i>Journal Physics D: Applied Physics</i> , 2019 , 52,	3	161
279	Discovery of a Multinary Noble Metal-Free Oxygen Reduction Catalyst. <i>Advanced Energy Materials</i> , 2018 , 8, 1802269	21.8	131
278	Self-Directed Localization of ZIF-8 Thin Film Formation by Conversion of ZnO Nanolayers. <i>Advanced Functional Materials</i> , 2014 , 24, 4804-4811	15.6	108
277	Development of multifunctional thin films using high-throughput experimentation methods. <i>International Journal of Materials Research</i> , 2008 , 99, 1144-1149	0.5	103
276	Discovery of new materials using combinatorial synthesis and high-throughput characterization of thin-film materials libraries combined with computational methods. <i>Npj Computational Materials</i> , 2019 , 5,	10.9	90
275	Structure-related antibacterial activity of a titanium nanostructured surface fabricated by glancing angle sputter deposition. <i>Nanotechnology</i> , 2014 , 25, 195101	3.4	90
274	Toward a Paradigm Shift in Electrocatalysis Using Complex Solid Solution Nanoparticles. <i>ACS Energy Letters</i> , 2019 , 4, 1206-1214	20.1	81
273	Giant magnetostrictive thin films for applications in microelectromechanical systems (invited). <i>Journal of Applied Physics</i> , 2000 , 87, 4691-4695	2.5	77
272	Enhanced photoelectrochemical properties of WO ₃ thin films fabricated by reactive magnetron sputtering. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4724-4731	6.7	74
271	Giant magnetostrictive multilayers (invited). <i>Journal of Applied Physics</i> , 1999 , 85, 6232-6237	2.5	73
270	Magnetostrictive actuation in microsystems. <i>Sensors and Actuators A: Physical</i> , 2000 , 81, 275-280	3.9	69
269	Giant magnetostrictive spring magnet type multilayers. <i>Journal of Applied Physics</i> , 1997 , 81, 5420-5422	2.5	67
268	High-Throughput Fabrication of AuCu Nanoparticle Libraries by Combinatorial Sputtering in Ionic Liquids. <i>Advanced Functional Materials</i> , 2014 , 24, 2049-2056	15.6	61

267	Optimization of the ΔE effect in thin films and multilayers by magnetic field annealing. <i>IEEE Transactions on Magnetics</i> , 2002 , 38, 2829-2831	2	61
266	Accelerated atomic-scale exploration of phase evolution in compositionally complex materials. <i>Materials Horizons</i> , 2018 , 5, 86-92	14.4	55
265	Combinatorial fabrication and high-throughput characterization of a TiNiCu shape memory thin film composition spread. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 481-482, 151-155	5.3	55
264	On the Origin of the Improved Ruthenium Stability in RuO ₂ -O ₂ Mixed Oxides. <i>Journal of the Electrochemical Society</i> , 2016 , 163, F3099-F3104	3.9	53
263	Combinatorial metallurgical synthesis and processing of high-entropy alloys. <i>Journal of Materials Research</i> , 2018 , 33, 3156-3169	2.5	51
262	MEMS tools for combinatorial materials processing and high-throughput characterization. <i>Measurement Science and Technology</i> , 2005 , 16, 111-118	2	51
261	Rapid and Surfactant-Free Synthesis of Bimetallic PtCu Nanoparticles Simply via Ultrasound-Assisted Redox Replacement. <i>ACS Catalysis</i> , 2012 , 2, 1647-1653	13.1	50
260	High-throughput screening of thin-film semiconductor material libraries I: system development and case study for Ti-W-O. <i>ChemSusChem</i> , 2015 , 8, 1270-8	8.3	47
259	Phase transformation, structural and functional fatigue properties of TiNiBi shape memory thin films. <i>Acta Materialia</i> , 2011 , 59, 3267-3275	8.4	47
258	A combinatorial passivation study of TaTi alloys. <i>Corrosion Science</i> , 2009 , 51, 1519-1527	6.8	44
257	Design of Complex Solid-Solution Electrocatalysts by Correlating Configuration, Adsorption Energy Distribution Patterns, and Activity Curves. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 5844-5850	16.4	44
256	Unraveling compositional effects on the light-induced oxygen evolution in Bi(VMo _x)O ₄ material libraries. <i>Energy and Environmental Science</i> , 2017 , 10, 1213-1221	35.4	43
255	Combinatorial study of phase transformation characteristics of a TiNiPd shape memory thin film composition spread in view of microactuator applications. <i>Applied Surface Science</i> , 2007 , 254, 743-748	6.7	41
254	Layered WO ₃ /TiO ₂ nanostructures with enhanced photocurrent densities. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 15954-15964	6.7	40
253	R-phase formation in Ti ₃₉ Ni ₄₅ Cu ₁₆ shape memory thin films and bulk alloys discovered by combinatorial methods. <i>Acta Materialia</i> , 2009 , 57, 4169-4177	8.4	40
252	High-throughput characterization of hydrogen storage materials using thin films on micromachined Si substrates. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 516-521	5.7	40
251	The ferromagnetic shape memory system FePdCu. <i>Acta Materialia</i> , 2010 , 58, 5949-5961	8.4	38
250	Integration of two degree-of-freedom magnetostrictive actuation and piezoresistive detection: application to a two-dimensional optical scanner. <i>Journal of Microelectromechanical Systems</i> , 2002 , 11, 355-361	2.5	37

249	CrN/AlN nanolaminate coatings deposited via high power pulsed and middle frequency pulsed magnetron sputtering. <i>Thin Solid Films</i> , 2014 , 572, 153-160	2.2	35
248	Screening of material libraries for electrochemical CO ₂ reduction catalysts [Improving selectivity of Cu by mixing with Co. <i>Journal of Catalysis</i> , 2016 , 343, 248-256	7.3	35
247	Rapid identification of areas of interest in thin film materials libraries by combining electrical, optical, X-ray diffraction, and mechanical high-throughput measurements: a case study for the system Ni-Al. <i>ACS Combinatorial Science</i> , 2014 , 16, 686-94	3.9	34
246	Combinatorial development of nanoporous WO ₃ thin film photoelectrodes for solar water splitting by dealloying of binary alloys. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11618-11624	6.7	34
245	Ag-stabilized few-layer graphene dispersions in low boiling point solvents for versatile nonlinear optical applications. <i>Carbon</i> , 2013 , 62, 182-192	10.4	34
244	Thermally Oxidized MnO ₂ Thin Films as Protective Coatings for SOFC Interconnects. <i>Journal of the Electrochemical Society</i> , 2009 , 156, B1431	3.9	34
243	Combinatorial investigation of HfO ₂ thin films and their anodic oxides. <i>Electrochimica Acta</i> , 2010 , 55, 7884-7891	6.7	33
242	High-Density Droplet Microarray of Individually Addressable Electrochemical Cells. <i>Analytical Chemistry</i> , 2017 , 89, 5832-5839	7.8	32
241	Potential-resolved dissolution of Pt-Cu: A thin-film material library study. <i>Electrochimica Acta</i> , 2014 , 144, 332-340	6.7	32
240	Fe-Cr-Al containing oxide semiconductors as potential solar water-splitting materials. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 4883-9	9.5	32
239	The effect of cast microstructure and crystallography on rafting, dislocation plasticity and creep anisotropy of single crystal Ni-base superalloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 626, 305-312	5.3	32
238	High-throughput study of martensitic transformations in the complete TiNiCu system. <i>Intermetallics</i> , 2012 , 26, 98-109	3.5	32
237	Modular high-throughput test stand for versatile screening of thin-film materials libraries. <i>Science and Technology of Advanced Materials</i> , 2011 , 12, 054206	7.1	32
236	Magnetic properties and microstructure of giant magnetostrictive TbFe/FeCo multilayers. <i>Journal of Applied Physics</i> , 1998 , 83, 7267-7269	2.5	32
235	Wet Nanoindentation of the Solid Electrolyte Interphase on Thin Film Si Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 23554-63	9.5	31
234	Atomic-scale investigation of fast oxidation kinetics of nanocrystalline CrMnFeCoNi thin films. <i>Journal of Alloys and Compounds</i> , 2018 , 766, 1080-1085	5.7	31
233	High-frequency magnetoelastic materials for remote-interrogated stress sensors. <i>Journal of Magnetism and Magnetic Materials</i> , 2002 , 242-245, 1126-1131	2.8	31
232	High-throughput synthesis and characterization of anodic oxides on NbTi alloys. <i>Electrochimica Acta</i> , 2009 , 54, 5973-5980	6.7	30

231	First-principles calculations of the elastic constants of FePt alloys. <i>Intermetallics</i> , 2008 , 16, 113-118	3.5	30
230	Opto-mechanical characterization of hydrogen storage properties of MgNi thin film composition spreads. <i>Applied Surface Science</i> , 2007 , 254, 682-686	6.7	30
229	Functional and structural fatigue of titanium tantalum high temperature shape memory alloys (HT SMAs). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 620, 359-366	5.3	29
228	. <i>Journal of Microelectromechanical Systems</i> , 2009 , 18, 186-194	2.5	29
227	High-throughput screening of thin-film semiconductor material libraries II: characterization of Fe-W-O libraries. <i>ChemSusChem</i> , 2015 , 8, 1279-85	8.3	28
226	A novel high-throughput fatigue testing method for metallic thin films. <i>Science and Technology of Advanced Materials</i> , 2011 , 12, 054202	7.1	28
225	Investigation of thermally oxidised MnO thin films for application in SOFC metallic interconnects. <i>Applied Surface Science</i> , 2008 , 255, 1850-1859	6.7	28
224	Magnetoelastic and magnetostatic interactions in exchange-spring multilayers. <i>Physical Review B</i> , 2005 , 72,	3.3	28
223	Complex-Solid-Solution Electrocatalyst Discovery by Computational Prediction and High-Throughput Experimentation*. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 6932-6937	16.4	28
222	A New Prototype Two-Phase (TiNi)Fe SMA System with Tailorable Thermal Hysteresis. <i>Advanced Functional Materials</i> , 2011 , 21, 113-118	15.6	27
221	Micro-hotplates for high-throughput thin film processing and in situ phase transformation characterization. <i>Sensors and Actuators A: Physical</i> , 2008 , 147, 576-582	3.9	27
220	Micro-sensor coupling magnetostriction and magnetoresistive phenomena. <i>Journal of Magnetism and Magnetic Materials</i> , 2002 , 242-245, 1132-1135	2.8	27
219	Understanding surface reactivity of Si electrodes in Li-ion batteries by in operando scanning electrochemical microscopy. <i>Chemical Communications</i> , 2016 , 52, 6825-8	5.8	27
218	Adherence of human mesenchymal stem cells on Ti and TiO ₂ nano-columnar surfaces fabricated by glancing angle sputter deposition. <i>Applied Surface Science</i> , 2014 , 292, 626-631	6.7	26
217	Thickness-dependence of the B2B19 martensitic transformation in nanoscale shape memory alloy thin films: Zero-hysteresis in 75 nm thick Ti ₅₁ Ni ₃₈ Cu ₁₁ thin films. <i>Acta Materialia</i> , 2012 , 60, 306-313	8.4	26
216	Nanostructured Few-Layer Graphene with Superior Optical Limiting Properties Fabricated by a Catalytic Steam Etching Process. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 11811-11817	3.8	26
215	High-throughput characterization of Pt supported on thin film oxide material libraries applied in the oxygen reduction reaction. <i>Analytical Chemistry</i> , 2011 , 83, 1916-23	7.8	26
214	Combinatorial screening of Pd-based quaternary electrocatalysts for oxygen reduction reaction in alkaline media. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 67-72	13	25

213	Dynamics of Photogenerated Holes in TiO ₂ -Polyheptazine Hybrid Photoanodes for Visible Light-Driven Water Splitting. <i>Journal of the Electrochemical Society</i> , 2012 , 159, H616-H622	3.9	25
212	Investigation of hard magnetic properties in the FePt system by combinatorial deposition of thin film multilayer libraries. <i>Applied Surface Science</i> , 2006 , 252, 2518-2523	6.7	25
211	Strain sensors based on magnetostrictive GMR/TMR structures. <i>IEEE Transactions on Magnetics</i> , 2002 , 38, 2826-2828	2	24
210	Correlating Oxygen Evolution Catalysts Activity and Electronic Structure by a High-Throughput Investigation of NiFeCrO. <i>Scientific Reports</i> , 2017 , 7, 44192	4.9	23
209	Bimetallic silver-platinum nanoparticles with combined osteo-promotive and antimicrobial activity. <i>Nanotechnology</i> , 2019 , 30, 305101	3.4	23
208	Unraveling Self-Doping Effects in Thermoelectric TiNiSn Half-Heusler Compounds by Combined Theory and High-Throughput Experiments. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500208	6.4	23
207	A structure zone diagram obtained by simultaneous deposition on a novel step heater: A case study for Cu ₂ O thin films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015 , 212, 2798-2804	1.6	23
206	Development and characterization of Fe ₇₀ Pd ₃₀ ferromagnetic shape memory splats. <i>Intermetallics</i> , 2010 , 18, 877-882	3.5	23
205	Controlling the Amorphous and Crystalline State of Multinary Alloy Nanoparticles in An Ionic Liquid. <i>Nanomaterials</i> , 2018 , 8,	5.4	23
204	Rapid Assessment of Sputtered Nanoparticle Ionic Liquid Combinations. <i>ACS Combinatorial Science</i> , 2018 , 20, 243-250	3.9	22
203	PEALD of SiO and AlO Thin Films on Polypropylene: Investigations of the Film Growth at the Interface, Stress, and Gas Barrier Properties of Dyads. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 7422-7434	9.5	22
202	The effects of grain size on the phase transformation properties of annealed (Ti/Ni/W) shape memory alloy multilayers. <i>Scripta Materialia</i> , 2011 , 64, 1047-1050	5.6	22
201	Identification of optimized TiNiCu shape memory alloy compositions for high-frequency thin film microactuator applications. <i>Smart Materials and Structures</i> , 2010 , 19, 065032	3.4	22
200	Giant magnetostrictive TbFe/Fe multilayers. <i>Journal of Alloys and Compounds</i> , 1997 , 258, 133-137	5.7	22
199	Interdiffusion in FePt multilayers. <i>Journal of Applied Physics</i> , 2006 , 100, 073517	2.5	22
198	Correlative plasma-surface model for metastable Cr-Al-N: Frenkel pair formation and influence of the stress state on the elastic properties. <i>Journal of Applied Physics</i> , 2017 , 121, 215108	2.5	21
197	Scanning droplet cell microscopy on a wide range hafniumBismuth thin film combinatorial library. <i>Electrochimica Acta</i> , 2013 , 110, 539-549	6.7	21
196	Reversible fcc<-bcc transformation in freestanding epitaxially grown FePd ferromagnetic shape memory films. <i>Scripta Materialia</i> , 2011 , 64, 89-92	5.6	21

195	Magnetically tunable SAW-resonator		21
194	Properties of anodic oxides grown on a hafnium-tantalum-titanium thin film library. <i>Science and Technology of Advanced Materials</i> , 2014 , 15, 015006	7.1	20
193	Composition-Dependent Oxygen Reduction Activity and Stability of PtCu Thin Films. <i>ChemElectroChem</i> , 2014 , 1, 358-361	4.3	20
192	Influence of precipitates on the thermal hysteresis of TiNiPd shape memory thin films. <i>Scripta Materialia</i> , 2009 , 60, 352-355	5.6	20
191	Shape memory effect and magnetostriction of sputtered NiMnGa thin films 2003 ,		20
190	Comparing the Activity of Complex Solid Solution Electrocatalysts Using Inflection Points of Voltammetric Activity Curves as Activity Descriptors. <i>ACS Catalysis</i> , 2021 , 11, 1014-1023	13.1	20
189	Combinatorial study of Fe-Co-V hard magnetic thin films. <i>Science and Technology of Advanced Materials</i> , 2017 , 18, 231-238	7.1	19
188	Synthesis of nanostructured LiMnO thin films by glancing angle deposition for Li-ion battery applications. <i>Nanotechnology</i> , 2016 , 27, 455402	3.4	19
187	New AuCuAl thin film shape memory alloys with tunable functional properties and high thermal stability. <i>Acta Materialia</i> , 2015 , 85, 378-386	8.4	19
186	High-throughput study of the anodic oxidation of HfTi thin films. <i>Electrochimica Acta</i> , 2009 , 54, 5171-5178	7.7	19
185	What Makes High-Entropy Alloys Exceptional Electrocatalysts?. <i>Angewandte Chemie - International Edition</i> , 2021 ,	16.4	19
184	Antibacterial Efficacy of Sacrificial Anode Thin Films Combining Silver with Platinum Group Elements within a Bacteria-Containing Human Plasma Clot. <i>Advanced Engineering Materials</i> , 2018 , 20, 1700493	3.5	18
183	Combinatorial Synthesis and High-Throughput Characterization of Fe-V-O Thin-Film Materials Libraries for Solar Water Splitting. <i>ACS Combinatorial Science</i> , 2018 , 20, 544-553	3.9	18
182	High-Temperature Shape Memory Effect in Ti-Ta Thin Films Sputter Deposited at Room Temperature. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1400019	4.6	18
181	High-throughput characterization of mechanical properties of TiNiCu shape memory thin films at elevated temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 6552-6557	5.3	17
180	Correlation of phase transformations and magnetic properties in annealed epitaxial FePd magnetic shape memory alloy films. <i>Journal of Applied Physics</i> , 2010 , 107, 113919	2.5	17
179	Application of a multilayered magnetostrictive film to a micromachined 2-D optical scanner. <i>Journal of Microelectromechanical Systems</i> , 2004 , 13, 264-271	2.5	17
178	Laser micromachining for applications in thin film technology. <i>Applied Surface Science</i> , 2000 , 154-155, 633-639	6.7	17

177	Expediting Combinatorial Data Set Analysis by Combining Human and Algorithmic Analysis. <i>ACS Combinatorial Science</i> , 2017 , 19, 1-8	3.9	16
176	Antibacterial activity of microstructured sacrificial anode thin films by combination of silver with platinum group elements (platinum, palladium, iridium). <i>Materials Science and Engineering C</i> , 2017 , 74, 536-541	8.3	16
175	Bacterial cell division is involved in the damage of gram-negative bacteria on a nano-pillar titanium surface. <i>Biomedical Physics and Engineering Express</i> , 2018 , 4, 055002	1.5	16
174	Artificial single variant martensite in freestanding Fe(70)Pd(30) films obtained by coherent epitaxial growth. <i>Advanced Materials</i> , 2010 , 22, 2668-71	24	16
173	Combinatorial fabrication of magnetic multilayer films. <i>Applied Surface Science</i> , 2004 , 223, 78-83	6.7	16
172	Magnetoelastic thin films for high-frequency applications. <i>IEEE Transactions on Magnetics</i> , 2001 , 37, 2690-2692	16	16
171	Bayesian Optimization of High-Entropy Alloy Compositions for Electrocatalytic Oxygen Reduction*. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 24144-24152	16.4	16
170	Time- and space-resolved high-throughput characterization of stresses during sputtering and thermal processing of AlCrN thin films. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 084011	3	15
169	Microstructure, Shape Memory Effect and Functional Stability of Ti67Ta33 Thin Films. <i>Advanced Engineering Materials</i> , 2015 , 17, 1425-1433	3.5	15
168	Dependence of grain sizes and microstrains on annealing temperature in Fe/Pt multilayers and L10 FePt thin films. <i>Thin Solid Films</i> , 2008 , 517, 531-537	2.2	15
167	Glancing-Angle Deposition of Nanostructures on an Implant Material Surface. <i>Nanomaterials</i> , 2019 , 9,	5.4	14
166	Using Instability of a Non-stoichiometric Mixed Oxide Oxygen Evolution Catalyst As a Tool to Improve Its Electrocatalytic Performance. <i>Electrocatalysis</i> , 2018 , 9, 139-145	2.7	14
165	Understanding the Magnetic Shape Memory System FePd by Thin Film Experiments and First Principle Calculations. <i>Advanced Engineering Materials</i> , 2012 , 14, 724-749	3.5	14
164	High-throughput compositional and structural evaluation of a Li(a)(Ni(x)Mn(y)Co(z))O(r) thin film battery materials library. <i>ACS Combinatorial Science</i> , 2013 , 15, 401-9	3.9	14
163	High-throughput characterization of stresses in thin film materials libraries using Si cantilever array wafers and digital holographic microscopy. <i>Review of Scientific Instruments</i> , 2011 , 82, 063903	1.7	14
162	Antibacterial activity of microstructured Ag/Au sacrificial anode thin films. <i>Materials Science and Engineering C</i> , 2015 , 46, 276-80	8.3	13
161	Ion energy control via the electrical asymmetry effect to tune coating properties in reactive radio frequency sputtering. <i>Plasma Sources Science and Technology</i> , 2019 , 28, 114001	3.5	13
160	High-Throughput Structural and Functional Characterization of the Thin Film Materials System Ni-Co-Al. <i>ACS Combinatorial Science</i> , 2017 , 19, 618-624	3.9	13

159	Fundamental study of an industrial reactive HPPMS (Cr,Al)N process. <i>Journal of Applied Physics</i> , 2017 , 122, 015302	2.5	13
158	Temperature dependent low-field measurements of the magnetocaloric Ni_2MnGa with sub-mK resolution in small volume and thin film samples. <i>Applied Physics Letters</i> , 2015 , 106, 032408	3.4	13
157	Investigation of the Thin-Film Phase Diagram of the Cr-Ni-Re System by High-Throughput Experimentation. <i>Advanced Engineering Materials</i> , 2014 , 16, 588-593	3.5	13
156	Mechanical properties of SiLi _x thin films at different stages of electrochemical Li insertion. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014 , 211, 2650-2656	1.6	13
155	Enhancing magnetocrystalline anisotropy of the Fe ₇₀ Pd ₃₀ magnetic shape memory alloy by adding Cu. <i>Acta Materialia</i> , 2012 , 60, 6920-6930	8.4	13
154	Multifunctional FeCo/TiN Multilayer Thin Films with Combined Magnetic and Protective Properties. <i>Advanced Engineering Materials</i> , 2009 , 11, 969-975	3.5	13
153	Effects of annealing time on the structural and magnetic properties of L10 FePt thin films. <i>Thin Solid Films</i> , 2010 , 518, 4977-4985	2.2	13
152	Nanostructured Ti-Ta thin films synthesized by combinatorial glancing angle sputter deposition. <i>Nanotechnology</i> , 2016 , 27, 495604	3.4	13
151	Combinatorial synthesis and high-throughput characterization of structural and photoelectrochemical properties of Fe:WO ₃ nanostructured libraries. <i>Nanotechnology</i> , 2017 , 28, 185604	3.4	12
150	Combinatorial Synthesis and High-Throughput Characterization of Microstructure and Phase Transformation in Ni _{1-x} Co _x Quaternary Thin-Film Library. <i>Engineering</i> , 2020 , 6, 637-643	9.7	12
149	Predicting structure zone diagrams for thin film synthesis by generative machine learning. <i>Communications Materials</i> , 2020 , 1,	6	12
148	Effect of Pt and Au current collector in LiMnO ₂ thin film for micro-batteries. <i>Nanotechnology</i> , 2018 , 29, 035404	3.4	12
147	New materials for the light-induced hydrogen evolution reaction from the Cu ₂ Si ₂ Te ₂ system. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3148-3152	13	12
146	Development of Single-Crystal Ni-Base Superalloys Based on Multi-criteria Numerical Optimization and Efficient Use of Refractory Elements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 4134-4145	2.3	12
145	High-Throughput Investigation of the Oxidation and Phase Constitution of Thin-Film Ni _{1-x} Al _x Cr Materials Libraries. <i>Advanced Engineering Materials</i> , 2015 , 17, 1365-1373	3.5	12
144	Integrity of Micro-Hotplates During High-Temperature Operation Monitored by Digital Holographic Microscopy. <i>Journal of Microelectromechanical Systems</i> , 2010 , 19, 1175-1179	2.5	12
143	Subtoxic cell responses to silica particles with different size and shape. <i>Scientific Reports</i> , 2020 , 10, 21594	4.9	11
142	On the Effects of Diluted and Mixed Ionic Liquids as Liquid Substrates for the Sputter Synthesis of Nanoparticles. <i>Nanomaterials</i> , 2020 , 10,	5.4	11

141	Combinatorial Synthesis of Binary Nanoparticles in Ionic Liquids by Cosputtering and Mixing of Elemental Nanoparticles. <i>ACS Combinatorial Science</i> , 2019 , 21, 743-752	3.9	11
140	Influence of process parameters on the crystallinity, morphology and composition of tungsten oxide-based thin films grown by metalorganic chemical vapor deposition. <i>Thin Solid Films</i> , 2012 , 522, 11-16	2.2	11
139	Applications of an energy-dispersive pnCCD for X-ray reflectivity: Investigation of interdiffusion in Fe/Bt multilayers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 2601-2607	1.6	11
138	High-frequency magnetoelastic multilayer thin films and applications. <i>IEEE Transactions on Magnetics</i> , 2003 , 39, 3062-3067	2	11
137	Berührungslose Magnetoelastische Sensoren (Remotely Interrogated Magnetoelastic Sensors). <i>TM Technisches Messen</i> , 2001 , 68,	0.7	11
136	Crystallography companion agent for high-throughput materials discovery. <i>Nature Computational Science</i> , 2021 , 1, 290-297		11
135	A Unified Interdisciplinary Approach to Design Antibacterial Coatings for Fast Silver Release. <i>ChemElectroChem</i> , 2017 , 4, 1975-1983	4.3	10
134	Combinatorial Development of Fe-Co-Nb Thin Film Magnetic Nanocomposites. <i>ACS Combinatorial Science</i> , 2015 , 17, 698-703	3.9	10
133	Influence of residual stress on the adhesion and surface morphology of PECVD-coated polypropylene. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 445301	3	10
132	Recent Developments in High-Temperature Shape Memory Thin Films. <i>Shape Memory and Superelasticity</i> , 2015 , 1, 450-459	2.8	10
131	The Bain library: A Cu-Au buffer template for a continuous variation of lattice parameters in epitaxial films. <i>APL Materials</i> , 2014 , 2, 046107	5.7	10
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