Alfred G Ludwig

List of Publications by Year in Descending Order

284 papers	6,713 citations	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	Nanoscale copper and silver thin film systems display differences in antiviral and antibacterial properties.. *Scientific Reports*, **2022**, 12, 7193	4.9	2
283	Atomic scale understanding of phase stability and decomposition of a nanocrystalline CrMnFeCoNi Cantor alloy. *Applied Physics Letters*, **2021**, 119, 201910	3.4	2
282	Microstructure and residual stress evolution in nanocrystalline Cu-Zr thin films. *Journal of Alloys and Compounds*, **2021**, 896, 162799	5.7	0
281	Nanocrystalline equiatomic CoCrFeNi alloy thin films: Are they single phase fcc?. *Surface and Coatings Technology*, **2021**, 410, 126945	4.4	4
280	Stabilization of an iridium oxygen evolution catalyst by titanium oxides. *JPhys Energy*, **2021**, 3, 034006	4.9	7
279	Crystallography companion agent for high-throughput materials discovery. *Nature Computational Science*, **2021**, 1, 290-297		11
278	Electrocatalytic oxidation of 2-propanol on PtxIr100-x bifunctional electrocatalysts □A thin-film materials library study. *Journal of Catalysis*, **2021**, 396, 387-394	7.3	3
277	Investigation of an atomic-layer-deposited Al2O3 diffusion barrier between Pt and Si for the use in atomic scale atom probe tomography studies on a combinatorial processing platform. *Surface and Interface Analysis*, **2021**, 53, 727-733	1.5	
276	Combining Switchable Phase-Change Materials and Phase-Transition Materials for Thermally Regulated Smart Mid-Infrared Modulators. *Advanced Optical Materials*, **2021**, 9, 2100417	8.1	6
275	Upscaling nanoparticle synthesis by sputter deposition in ionic liquids. *Journal of Nanoparticle Research*, **2021**, 23, 1	2.3	3
274	Link between Structural and Optical Properties of CoxFe3□O4 Nanoparticles and Thin Films with Different Co/Fe Ratios. *Journal of Physical Chemistry C*, **2021**, 125, 14356-14365	3.8	3
273	Maximize mixing in highly polyelemental solid solution alloy nanoparticles. *Matter*, **2021**, 4, 2100-2101	12.7	3
272	Influence of low Bi contents on phase transformation properties of VO studied in a VO:Bi thin film library.. *RSC Advances*, **2021**, 11, 7231-7237	3.7	2
271	Comparing the Activity of Complex Solid Solution Electrocatalysts Using Inflection Points of Voltammetric Activity Curves as Activity Descriptors. *ACS Catalysis*, **2021**, 11, 1014-1023	13.1	20
270	Complex-Solid-Solution Electrocatalyst Discovery by Computational Prediction and High-Throughput Experimentation*. *Angewandte Chemie - International Edition*, **2021**, 60, 6932-6937	16.4	28
269	Complex-Solid-Solution Electrocatalyst Discovery by Computational Prediction and High-Throughput Experimentation**. *Angewandte Chemie*, **2021**, 133, 7008-7013	3.6	4
268	Deep learning for visualization and novelty detection in large X-ray diffraction datasets. *Npj Computational Materials*, **2021**, 7,	10.9	6

267	What Makes High-Entropy Alloys Exceptional Electrocatalysts?. *Angewandte Chemie - International Edition*, **2021**,	16.4	19
266	Chemical Vapor Deposition of Cobalt and Nickel Ferrite Thin Films: Investigation of Structure and Pseudocapacitive Properties. *Advanced Materials Interfaces*, **2021**, 8, 2100949	4.6	0
265	Bayesian Optimization of High-Entropy Alloy Compositions for Electrocatalytic Oxygen Reduction*. *Angewandte Chemie - International Edition*, **2021**, 60, 24144-24152	16.4	16
264	Subtoxic cell responses to silica particles with different size and shape. *Scientific Reports*, **2020**, 10, 21591	4.9	11
263	Combinatorial Synthesis and High-Throughput Characterization of Microstructure and Phase Transformation in Ni□Ti□Cu□ Quaternary Thin-Film Library. *Engineering*, **2020**, 6, 637-643	9.7	12
262	Structure Zone Investigation of Multiple Principle Element Alloy Thin Films as Optimization for Nanoindentation Measurements. *Materials*, **2020**, 13,	3.5	3
261	Fast-Track to Research Data Management in Experimental Material Science-Setting the Ground for Research Group Level Materials Digitalization. *ACS Combinatorial Science*, **2020**, 22, 401-409	3.9	5
260	Comparative study of the residual stress development in HMDSN-based organosilicon and silicon oxide coatings. *Journal Physics D: Applied Physics*, **2020**, 53, 345203	3	0
259	On the Effects of Diluted and Mixed Ionic Liquids as Liquid Substrates for the Sputter Synthesis of Nanoparticles. *Nanomaterials*, **2020**, 10,	5.4	11
258	High-throughput characterization of Ag□V□O□ nanostructured thin-film materials libraries for photoelectrochemical solar water splitting. *International Journal of Hydrogen Energy*, **2020**, 45, 12037-12047	6.7	6
257	Synthesis of plasmonic Fe/Al nanoparticles in ionic liquids.. *RSC Advances*, **2020**, 10, 12891-12899	3.7	9
256	Structural and photoelectrochemical properties in the thin film system Cu-Fe-V-O and its ternary subsystems Fe-V-O and Cu-V-O. *Journal of Chemical Physics*, **2020**, 153, 014707	3.9	2
255	Thin-Film Microtensile-Test Structures for High-Throughput Characterization of Mechanical Properties. *ACS Combinatorial Science*, **2020**, 22, 142-149	3.9	5
254	Photocurrent Recombination Through Surface Segregation in Al□Cr□Fe□O□ Photocathodes. *Zeitschrift Fur Physikalische Chemie*, **2020**, 234, 605-614	3.1	3
253	Correlative chemical and structural investigations of accelerated phase evolution in a nanocrystalline high entropy alloy. *Scripta Materialia*, **2020**, 183, 122-126	5.6	7
252	Predicting structure zone diagrams for thin film synthesis by generative machine learning. *Communications Materials*, **2020**, 1,	6	12
251	Experimental and Theoretical Investigation on Phase Formation and Mechanical Properties in Cr-Co-Ni Alloys Processed Using a Novel Thin-Film Quenching Technique. *ACS Combinatorial Science* , **2020**, 22, 232-247	3.9	1
250	High-Throughput Characterization of (FeCo)O Thin-Film Composition Spreads. *ACS Combinatorial Science*, **2020**, 22, 804-812	3.9	5

249	Enhanced antibacterial performance of ultrathin silver/platinum nanopatches by a sacrificial anode mechanism. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2020**, 24, 102126	6	8
248	Design von komplexen Mischkristall-Elektrokatalysatoren auf Basis der Korrelation von Konfiguration, Verteilungsmustern der Adsorptionsenergie und Aktivitätskurven. *Angewandte Chemie*, **2020**, 132, 5893-5900	3.6	10
247	Design of Complex Solid-Solution Electrocatalysts by Correlating Configuration, Adsorption Energy Distribution Patterns, and Activity Curves. *Angewandte Chemie - International Edition*, **2020**, 59, 5844-5850	16.4	44
246	Combinatorial synthesis of NiMnGa-(Fe,Co,Cu) high temperature ferromagnetic shape memory alloys thin films. *Scripta Materialia*, **2020**, 178, 104-107	5.6	5
245	Microstructure evolution and thermal stability of equiatomic CoCrFeNi films on (0001) Al2O3. *Acta Materialia*, **2020**, 200, 908-921	8.4	6
244	Sputter deposition of highly active complex solid solution electrocatalysts into an ionic liquid library: effect of structure and composition on oxygen reduction activity. *Nanoscale*, **2020**, 12, 23570-23577	7.7	9
243	Phase decomposition in a nanocrystalline CrCoNi alloy. *Scripta Materialia*, **2020**, 188, 259-263	5.6	6
242	Combinatorial Exploration and Mapping of Phase Transformation in a Ni-Ti-Co Thin Film Library. *ACS Combinatorial Science*, **2020**, 22, 641-648	3.9	6
241	High-Throughput Exploration of Metal Vanadate Thin-Film Systems (M-V-O, M = Cu, Ag, W, Cr, Co, Fe) for Solar Water Splitting: Composition, Structure, Stability, and Photoelectrochemical Properties. *ACS Combinatorial Science*, **2020**, 22, 844-857	3.9	5
240	Recent Developments in Small-Scale Shape Memory Oxides. *Shape Memory and Superelasticity*, **2020**, 6, 287-300	2.8	2
239	High-Throughput Characterization of Structural and Photoelectrochemical Properties of a BiMoWO Thin-Film Materials Library. *Zeitschrift Fur Physikalische Chemie*, **2020**, 234, 835-845	3.1	2
238	Combinatorial Search for New Solar Water Splitting Photoanode Materials in the Thin-Film System FeTiWO. *Zeitschrift Fur Physikalische Chemie*, **2020**, 234, 867-885	3.1	9
237	Influences of Cr Content on the Phase Transformation Properties and Stress Change in VCrO Thin-Film Libraries. *ACS Applied Electronic Materials*, **2020**, 2, 1176-1183	4	3
236	Influences of Si Substitution on Existence, Structural and Magnetic Properties of the CoMnGe Phase Investigated in a Co-Mn-Ge-Si Thin-Film Materials Library. *ACS Combinatorial Science*, **2019**, 21, 675-684	3.9	1
235	Glancing-Angle Deposition of Nanostructures on an Implant Material Surface. *Nanomaterials*, **2019**, 9,	5.4	14
234	Toward a Paradigm Shift in Electrocatalysis Using Complex Solid Solution Nanoparticles. *ACS Energy Letters*, **2019**, 4, 1206-1214	20.1	81
233	Structural and Functional Properties of the Thin Film System Ti-Ni-Si. *ACS Combinatorial Science*, **2019**, 21, 362-369	3.9	1
232	Bimetallic silver-platinum nanoparticles with combined osteo-promotive and antimicrobial activity. *Nanotechnology*, **2019**, 30, 305101	3.4	23

231	Influence of Cr Alloying (1.5 to 5 at.%) on Martensitic Phase Transformation Temperatures in Co-Ni-Ga-Cr Thin Films. *Shape Memory and Superelasticity*, **2019**, 5, 106-112	2.8	1
230	Electrical and Structural Properties of the Partial Ternary Thin-Film System Ni-Si-B. *ACS Combinatorial Science*, **2019**, 21, 310-315	3.9	2
229	Predicting synthesizability. *Journal Physics D: Applied Physics*, **2019**, 52,	3	161
228	Top-down fabrication and transformation properties of vanadium dioxide nanostructures. *Journal of Applied Physics*, **2019**, 125, 225104	2.5	1
227	Discovery of new materials using combinatorial synthesis and high-throughput characterization of thin-film materials libraries combined with computational methods. *Npj Computational Materials*, **2019**, 5,	10.9	90
226	Development of a high-temperature micromechanics stage with a novel temperature measurement approach. *Review of Scientific Instruments*, **2019**, 90, 073904	1.7	0
225	Ion energy control via the electrical asymmetry effect to tune coating properties in reactive radio frequency sputtering. *Plasma Sources Science and Technology*, **2019**, 28, 114001	3.5	13
224	Combinatorial Synthesis of Binary Nanoparticles in Ionic Liquids by Cosputtering and Mixing of Elemental Nanoparticles. *ACS Combinatorial Science*, **2019**, 21, 743-752	3.9	11
223	Atomic-scale characterisation of catalyst nanoparticles in ionic liquids by atom probe tomography. *Microscopy and Microanalysis*, **2019**, 25, 2530-2531	0.5	
222	Effects of the Ion to Growth Flux Ratio on the Constitution and Mechanical Properties of Cr-Al-N Thin Films. *ACS Combinatorial Science*, **2019**, 21, 782-793	3.9	5
221	Reconciling Experimental and Theoretical Data in the Structural Analysis of Ti□a Shape-Memory Alloys. *Shape Memory and Superelasticity*, **2019**, 5, 6-15	2.8	3
220	Improved homogeneity of plasma and coating properties using a lance matrix gas distribution in MW-PECVD **2019**, 16, 573-583		2
219	Rapid Assessment of Sputtered Nanoparticle Ionic Liquid Combinations. *ACS Combinatorial Science*, **2018**, 20, 243-250	3.9	22
218	Influences of W Content on the Phase Transformation Properties and the Associated Stress Change in Thin Film Substrate Combinations Studied by Fabrication and Characterization of Thin Film VW O Materials Libraries. *ACS Combinatorial Science*, **2018**, 20, 229-236	3.9	8
217	Crystallographic Structure Analysis of a Ti-Ta Thin Film Materials Library Fabricated by Combinatorial Magnetron Sputtering. *ACS Combinatorial Science*, **2018**, 20, 137-150	3.9	9
216	Effect of Pt and Au current collector in LiMnO thin film for micro-batteries. *Nanotechnology*, **2018**, 29, 035404	3.4	12
215	PEALD of SiO and AlO Thin Films on Polypropylene: Investigations of the Film Growth at the Interface, Stress, and Gas Barrier Properties of Dyads. *ACS Applied Materials & Interfaces*, **2018**, 10, 7422-7434	9.5	22
214	Si micro-cantilever sensor chips for space-resolved stress measurements in physical and plasma-enhanced chemical vapour deposition. *Sensors and Actuators A: Physical*, **2018**, 270, 271-277	3.9	8

213	Accelerated atomic-scale exploration of phase evolution in compositionally complex materials. *Materials Horizons*, **2018**, 5, 86-92	14.4	55
212	Application of High-Throughput Seebeck Microprobe Measurements on Thermoelectric Half-Heusler Thin Film Combinatorial Material Libraries. *ACS Combinatorial Science*, **2018**, 20, 1-18	3.9	3
211	Using Instability of a Non-stoichiometric Mixed Oxide Oxygen Evolution Catalyst As a Tool to Improve Its Electrocatalytic Performance. *Electrocatalysis*, **2018**, 9, 139-145	2.7	14
210	Microstructure and mechanical properties in the thin film system Cu-Zr. *Thin Solid Films*, **2018**, 645, 193-202	2.2	7
209	Antibacterial Efficacy of Sacrifical Anode Thin Films Combining Silver with Platinum Group Elements within a Bacteria-Containing Human Plasma Clot. *Advanced Engineering Materials*, **2018**, 20, 1700493	3.5	18
208	Development of Single-Crystal Ni-Base Superalloys Based on Multi-criteria Numerical Optimization and Efficient Use of Refractory Elements. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 4134-4145	2.3	12
207	Martensitic transformation hysteresis in Ni(Co)-Mn-Sn/MgO metamagnetic shape memory thin films. *Scripta Materialia*, **2018**, 156, 101-104	5.6	4
206	Atomic-scale investigation of fast oxidation kinetics of nanocrystalline CrMnFeCoNi thin films. *Journal of Alloys and Compounds*, **2018**, 766, 1080-1085	5.7	31
205	Bacterial cell division is involved in the damage of gram-negative bacteria on a nano-pillar titanium surface. *Biomedical Physics and Engineering Express*, **2018**, 4, 055002	1.5	16
204	Combinatorial metallurgical synthesis and processing of high-entropy alloys. *Journal of Materials Research*, **2018**, 33, 3156-3169	2.5	51
203	Combinatorial Synthesis and High-Throughput Characterization of Fe-V-O Thin-Film Materials Libraries for Solar Water Splitting. *ACS Combinatorial Science*, **2018**, 20, 544-553	3.9	18
202	The stability number as a metric for electrocatalyst stability benchmarking. *Nature Catalysis*, **2018**, 1, 508-515	36.5	281
201	Controlling the Amorphous and Crystalline State of Multinary Alloy Nanoparticles in An Ionic Liquid. *Nanomaterials*, **2018**, 8,	5.4	23
200	Combinatorial Study on Phase Formation and Oxidation in the Thin Film Superalloy Subsystems Co-Al-Cr and Co-Al-Cr-W. *ACS Combinatorial Science*, **2018**, 20, 611-620	3.9	5
199	Charge Carrier Lifetimes in Cr-Fe-Al-O Thin Films. *ACS Applied Materials & Interfaces*, **2018**, 10, 35869-35875	9.5	3
198	Discovery of a Multinary Noble Metal-Free Oxygen Reduction Catalyst. *Advanced Energy Materials*, **2018**, 8, 1802269	21.8	131
197	Influence of Substrate Temperature and Film Thickness on Thermal, Electrical, and Structural Properties of HPPMS and DC Magnetron Sputtered Ge Thin Films . *Advanced Engineering Materials*, **2017**, 19, 1600854	3.5	2
196	A Unified Interdisciplinary Approach to Design Antibacterial Coatings for Fast Silver Release. *ChemElectroChem*, **2017**, 4, 1975-1983	4.3	10

195	Combinatorial synthesis and high-throughput characterization of structural and photoelectrochemical properties of Fe:WO nanostructured libraries. *Nanotechnology*, **2017**, 28, 185604	3.4	12
194	High-Density Droplet Microarray of Individually Addressable Electrochemical Cells. *Analytical Chemistry*, **2017**, 89, 5832-5839	7.8	32
193	Combinatorial study of Fe-Co-V hard magnetic thin films. *Science and Technology of Advanced Materials*, **2017**, 18, 231-238	7.1	19
192	Correlative plasma-surface model for metastable Cr-Al-N: Frenkel pair formation and influence of the stress state on the elastic properties. *Journal of Applied Physics*, **2017**, 121, 215108	2.5	21
191	Composition, Constitution and Phase Transformation Behavior in Thin-Film and Bulk TiNiV. *Shape Memory and Superelasticity*, **2017**, 3, 49-56	2.8	3
190	Unraveling compositional effects on the light-induced oxygen evolution in Bi(V,Mo)O4 material libraries. *Energy and Environmental Science*, **2017**, 10, 1213-1221	35.4	43
189	Correlating Oxygen Evolution Catalysts Activity and Electronic Structure by a High-Throughput Investigation of NiFeCrO. *Scientific Reports*, **2017**, 7, 44192	4.9	23
188	Expediting Combinatorial Data Set Analysis by Combining Human and Algorithmic Analysis. *ACS Combinatorial Science*, **2017**, 19, 1-8	3.9	16
187	Antibacterial activity of microstructured sacrificial anode thin films by combination of silver with platinum group elements (platinum, palladium, iridium). *Materials Science and Engineering C*, **2017**, 74, 536-541	8.3	16
186	Influence of residual stress on the adhesion and surface morphology of PECVD-coated polypropylene. *Journal Physics D: Applied Physics*, **2017**, 50, 445301	3	10
185	Identification of a ternary phase in the Co-Ti-W system An advanced correlative thin-film and bulk combinatorial materials investigation. *Acta Materialia*, **2017**, 138, 100-110	8.4	9
184	High-Throughput Structural and Functional Characterization of the Thin Film Materials System Ni-Co-Al. *ACS Combinatorial Science*, **2017**, 19, 618-624	3.9	13
183	High-throughput study of binary thin film tungsten alloys. *International Journal of Refractory Metals and Hard Materials*, **2017**, 69, 40-48	4.1	3
182	High-throughput heterodyne thermoreflectance: Application to thermal conductivity measurements of a Fe-Si-Ge thin film alloy library. *Review of Scientific Instruments*, **2017**, 88, 074902	1.7	5
181	Microstructural evolution and functional fatigue of a Ti-25Ta high-temperature shape memory alloy. *Journal of Materials Research*, **2017**, 32, 4287-4295	2.5	8
180	Shape Memory Micro- and Nanowire Libraries for the High-Throughput Investigation of Scaling Effects. *ACS Combinatorial Science*, **2017**, 19, 574-584	3.9	
179	Fundamental study of an industrial reactive HPPMS (Cr,Al)N process. *Journal of Applied Physics*, **2017**, 122, 015302	2.5	13
178	Combinatorial screening of Pd-based quaternary electrocatalysts for oxygen reduction reaction in alkaline media. *Journal of Materials Chemistry A*, **2017**, 5, 67-72	13	25

177	Phase Formation and Oxidation Behavior at 500 °C in a Ni-Co-Al Thin-Film Materials Library. *ACS Combinatorial Science*, **2016**, 18, 575-82	3.9	8
176	On the Origin of the Improved Ruthenium Stability in RuO2–IrO2Mixed Oxides. *Journal of the Electrochemical Society*, **2016**, 163, F3099-F3104	3.9	53
175	Synthesis of nanostructured LiMnO thin films by glancing angle deposition for Li-ion battery applications. *Nanotechnology*, **2016**, 27, 455402	3.4	19
174	Composition–Structure–Property Relations in Au35.88Cu49.15Al16.17 Shape Memory Thin Films. *Shape Memory and Superelasticity*, **2016**, 2, 80-85	2.8	1
173	Unraveling Self-Doping Effects in Thermoelectric TiNiSn Half-Heusler Compounds by Combined Theory and High-Throughput Experiments. *Advanced Electronic Materials*, **2016**, 2, 1500208	6.4	23
172	New materials for the light-induced hydrogen evolution reaction from the Cu–Si–Ti–O system. *Journal of Materials Chemistry A*, **2016**, 4, 3148-3152	13	12
171	Structural and multifunctional properties of magnetron-sputtered Fe–(Mn) thin films. *Thin Solid Films*, **2016**, 603, 262-267	2.2	4
170	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. *Catalysis Today*, **2016**, 262, 170-180	5.3	693
169	Combining Sensor and Protective Functionalities in Ferromagnetic Nanocomposite Thin Films for Applications in Harsh Environments . *Advanced Engineering Materials*, **2016**, 18, 739-745	3.5	4
168	Nanostructured Ti-Ta thin films synthesized by combinatorial glancing angle sputter deposition. *Nanotechnology*, **2016**, 27, 495604	3.4	13
167	Screening of material libraries for electrochemical CO2 reduction catalysts – Improving selectivity of Cu by mixing with Co. *Journal of Catalysis*, **2016**, 343, 248-256	7.3	35
166	Understanding surface reactivity of Si electrodes in Li-ion batteries by in operando scanning electrochemical microscopy. *Chemical Communications*, **2016**, 52, 6825-8	5.8	27
165	Exploration of Ternary Subsystems of Superalloys by High-Throughput Thin Film Experimentation: Optical and Electrical Data of the Co-Al-W System. *Materials Research Society Symposia Proceedings*, **2015**, 1760, 145		
164	High-throughput screening of thin-film semiconductor material libraries I: system development and case study for Ti-W-O. *ChemSusChem*, **2015**, 8, 1270-8	8.3	47
163	Combinatorial Development of Fe-Co-Nb Thin Film Magnetic Nanocomposites. *ACS Combinatorial Science*, **2015**, 17, 698-703	3.9	10
162	Wet Nanoindentation of the Solid Electrolyte Interphase on Thin Film Si Electrodes. *ACS Applied Materials & Interfaces*, **2015**, 7, 23554-63	9.5	31
161	X-Ray Photoelectron Spectroscopy Investigations of the Surface Reaction Layer and its Effects on the Transformation Properties of Nanoscale Ti51Ni38Cu11 Shape Memory Thin Films. *Advanced Engineering Materials*, **2015**, 17, 669-673	3.5	5
160	Functional and structural fatigue of titanium tantalum high temperature shape memory alloys (HT SMAs). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 620, 359-366	5.3	29

159	Antibacterial activity of microstructured Ag/Au sacrificial anode thin films. *Materials Science and Engineering C*, **2015**, 46, 276-80	8.3	13
158	Recent Developments in High-Temperature Shape Memory Thin Films. *Shape Memory and Superelasticity*, **2015**, 1, 450-459	2.8	10
157	Film Stress of Amorphous Hydrogenated Carbon on Biaxially Oriented Polyethylene Terephthalate. *Plasma Processes and Polymers*, **2015**, 12, 896-904	3.4	6
156	A structure zone diagram obtained by simultaneous deposition on a novel step heater: A case study for Cu2O thin films. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 2798-2804	1.6	23
155	High-Throughput Investigation of the Oxidation and Phase Constitution of Thin-Film NiAlCr Materials Libraries. *Advanced Engineering Materials*, **2015**, 17, 1365-1373	3.5	12
154	High-throughput screening of thin-film semiconductor material libraries II: characterization of Fe-W-O libraries. *ChemSusChem*, **2015**, 8, 1279-85	8.3	28
153	Combinatorial synthesis and high-throughput characterization of the thin film materials system CoMnGe: Composition, structure, and magnetic properties. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 1969-1974	1.6	8
152	Microstructure, Shape Memory Effect and Functional Stability of Ti67Ta33 Thin Films. *Advanced Engineering Materials*, **2015**, 17, 1425-1433	3.5	15
151	A Combinatorial Study of Photoelectrochemical Properties of Fe-W-O Thin Films. *ChemPlusChem*, **2015**, 80, 136-140	2.8	9
150	Fe-Cr-Al containing oxide semiconductors as potential solar water-splitting materials. *ACS Applied Materials & Interfaces*, **2015**, 7, 4883-9	9.5	32
149	New AuCuAl thin film shape memory alloys with tunable functional properties and high thermal stability. *Acta Materialia*, **2015**, 85, 378-386	8.4	19
148	Temperature dependent low-field measurements of the magnetocaloric effect with sub-mK resolution in small volume and thin film samples. *Applied Physics Letters*, **2015**, 106, 032408	3.4	13
147	The effect of cast microstructure and crystallography on rafting, dislocation plasticity and creep anisotropy of single crystal Ni-base superalloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 626, 305-312	5.3	32
146	Characterization of TaTi Thin Films by using a Scanning Droplet Cell in Combination with AC Linear Sweep Voltammetry. *ChemElectroChem*, **2014**, 1, 903-908	4.3	7
145	High-Temperature Shape Memory Effect in Ti-Ta Thin Films Sputter Deposited at Room Temperature. *Advanced Materials Interfaces*, **2014**, 1, 1400019	4.6	18
144	Self-Directed Localization of ZIF-8 Thin Film Formation by Conversion of ZnO Nanolayers. *Advanced Functional Materials*, **2014**, 24, 4804-4811	15.6	108
143	Potential-resolved dissolution of Pt-Cu: A thin-film material library study. *Electrochimica Acta*, **2014**, 144, 332-340	6.7	32
142	Fabrication of a Ni-Cu Thin Film Material Library Using Pulsed Electrodeposition. *Journal of the Electrochemical Society*, **2014**, 161, D504-D509	3.9	9

141	High-Throughput Fabrication of AuCu Nanoparticle Libraries by Combinatorial Sputtering in Ionic Liquids. *Advanced Functional Materials*, **2014**, 24, 2049-2056	15.6	61
140	Adherence of human mesenchymal stem cells on Ti and TiO2 nano-columnar surfaces fabricated by glancing angle sputter deposition. *Applied Surface Science*, **2014**, 292, 626-631	6.7	26
139	Electrochemistry on binary valve metal combinatorial libraries: niobium-tantalum thin films. *Electrochimica Acta*, **2014**, 140, 366-375	6.7	9
138	Structure-related antibacterial activity of a titanium nanostructured surface fabricated by glancing angle sputter deposition. *Nanotechnology*, **2014**, 25, 195101	3.4	90
137	On the mechanism that leads to vanishing thermal hysteresis of the B2-R phase transformation in multilayered (TiNi)/(W) shape memory alloy thin films. *Thin Solid Films*, **2014**, 564, 79-85	2.2	7
136	Investigation of ternary subsystems of superalloys by thin-film combinatorial synthesis and high-throughput analysis. *MATEC Web of Conferences*, **2014**, 14, 18002	0.3	2
135	Sensorwerkstoffe. *VDI-Buch*, **2014**, 105-142	0.1	
134	Investigation of the Thin-Film Phase Diagram of the CrNiRe System by High-Throughput Experimentation. *Advanced Engineering Materials*, **2014**, 16, 588-593	3.5	13
133	Properties of anodic oxides grown on a hafnium-tantalum-titanium thin film library. *Science and Technology of Advanced Materials*, **2014**, 15, 015006	7.1	20
132	The Bain library: A Cu-Au buffer template for a continuous variation of lattice parameters in epitaxial films. *APL Materials*, **2014**, 2, 046107	5.7	10
131	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. *ACS Combinatorial Science*, **2014**, 16, 686-94	3.9	34
130	CrN/AlN nanolaminate coatings deposited via high power pulsed and middle frequency pulsed magnetron sputtering. *Thin Solid Films*, **2014**, 572, 153-160	2.2	35
129	Mechanical properties of SiLix thin films at different stages of electrochemical Li insertion. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2650-2656	1.6	13
128	Composition-structure-function diagrams of Ti-Ni-Au thin film shape memory alloys. *ACS Combinatorial Science*, **2014**, 16, 678-85	3.9	10
127	Synthesis of WO3 nanoblades by the dealloying of glancing angle deposited W-Fe nanocolumnar thin films. *Nanotechnology*, **2014**, 25, 205606	3.4	6
126	Composition-Dependent Oxygen Reduction Activity and Stability of PtCu Thin Films. *ChemElectroChem*, **2014**, 1, 358-361	4.3	20
125	Development of NiCu Materials Library by Using Combinatorial Pulsed Electrodeposition. *Transactions of the Indian Institute of Metals*, **2013**, 66, 429-432	1.2	6
124	Time- and space-resolved high-throughput characterization of stresses during sputtering and thermal processing of AlCrN thin films. *Journal Physics D: Applied Physics*, **2013**, 46, 084011	3	15

123	Synthesis of Au microwires by selective oxidation of Au-W thin-film composition spreads. *Science and Technology of Advanced Materials*, **2013**, 14, 015003	7.1	2
122	Scanning droplet cell microscopy on a wide range hafnium–niobium thin film combinatorial library. *Electrochimica Acta*, **2013**, 110, 539-549	6.7	21
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