Assocâ€Profâ€Dr Andrei Ionut Mardare

List of Publications by Year
in descending order

88 papers	1,073 citations	471509 17 h-index	501196 28 g-index
90 all docs	90 docs citations	90 times ranked	1007 citing authors

#	Article	IF	Citations
1	Mixed anodic oxides for forming-free memristors revealed by combinatorial screening of hafnium-tantalum system. Applied Materials Today, 2022, 26, 101270.	4.3	9
2	Comparative Behavior of Viscose-Based Supercapacitor Electrodes Activated by KOH, H2O, and CO2. Nanomaterials, 2022, 12, 677.	4.1	5
3	Impact of Electrolyte Incorporation in Anodized Niobium on Its Resistive Switching. Nanomaterials, 2022, 12, 813.	4.1	8
4	Growth of mixed anodic films on combinatorial Al-Gd alloys and their superimposed potential-pH diagrams. Journal of Electroanalytical Chemistry, 2022, 911, 116227.	3.8	1
5	Memristive Characteristics of Composite Hafnium/Tantalum Anodic Oxides. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	2
6	A theoretical and experimental framework for the formation of mixed anodic films on combinatorial aluminium-cerium alloys. Electrochimica Acta, 2021, 367, 137173.	5.2	2
7	Combinatorial Passivation Study in the Aluminium-Samarium System for Basic Property Mapping and Identification of Secondary Phase Influence. Journal of the Electrochemical Society, 2021, 168, 011503.	2.9	1
8	Electrolyte-Dependent Modification of Resistive Switching in Anodic Hafnia. Nanomaterials, 2021, 11, 666.	4.1	13
9	Phosphate incorporation in anodic hafnium oxide memristors. Applied Surface Science, 2021, 548, 149093.	6.1	13
10	Passivity of Holmium Studied Theoretically by Potential-pH Diagrams for Selection of Electrolytes and Experimental Proof of the Formation of Ultra-Thin Anodic Films. Journal of the Electrochemical Society, 2021, 168, 081509.	2.9	0
11	Composite Memristors by Nanoscale Modification of Hf/Ta Anodic Oxides. Journal of Physical Chemistry Letters, 2021, 12, 8917-8923.	4.6	7
12	Influence of electrolyte selection on performance of tantalum anodic oxide memristors. Applied Surface Science, 2021, 565, 150608.	6.1	14
13	Gallium-Enhanced Aluminum and Copper Electromigration Performance for Flexible Electronics. ACS Applied Materials & Interfaces, 2021, 13, 6960-6974.	8.0	8
14	Electrochemical Screening of Tungsten Trioxideâ€"Nickel Oxide Thin Film Combinatorial Library at Low Nickel Concentrations. ACS Combinatorial Science, 2020, 22, 61-69.	3.8	2
15	Combinatorial surface nanostructuring in aluminium-niobium system. Applied Surface Science, 2020, 499, 143943.	6.1	3
16	A Thermodynamic Approach for Selection of Anodizing Electrolytes in Aluminiumâ€Holmium System. ChemElectroChem, 2020, 7, 1342-1357.	3.4	1
17	Combinatorial screening of dysprosium-magnesium-zinc alloys for bioresorptive implants. Electrochimica Acta, 2020, 363, 137106.	5.2	3
18	A Thermodynamic Approach for Selection of Anodizing Electrolytes in Aluminiumâ€"Holmium System. ChemElectroChem, 2020, 7, 1290-1290.	3.4	0

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19	Samarium influence on current induced atomic displacement in Aluminium and Copper combinatorial thin film alloys. Thin Solid Films, 2020, 702, 137949.	1.8	4
20	Corrosion and Structural Properties of Erbiumâ€“Zinc Thin Films at Lowâ€toâ€Medium Erbium Concentrations. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900841.	1.8	0
21	Electrocatalytic glucose oxidation on a combinatorially electrodeposited cobalt-copper-nickel thin film material library. Electrochimica Acta, 2020, 341, 135744.	5.2	4
22	Customized 2D Structures for High Throughput Electromigration Measurements. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800869.	1.8	2
23	Strong Volta potential change in doped zinc oxide as a photoresponse to UV irradiation. RSC Advances, 2019, 9, 35579-35587.	3.6	5
24	Formation of nano-scale composite anodic films on aluminium-holmium alloys. Electrochimica Acta, 2019, 297, 888-904.	5.2	8
25	Localized-Plasmon Voltammetry to Detect pH Dependent Gold Oxidation. Journal of Physical Chemistry C, 2018, 122, 4565-4571.	3.1	12
26	Downstream analytics quantification of ion release during high-voltage anodisation of niobium. Journal of Solid State Electrochemistry, 2018, 22, 2457-2464.	2.5	4
27	Anodization behaviour and basic property mapping in the aluminium-erbium system. Journal of Solid State Electrochemistry, 2018, 22, 869-876.	2.5	5
28	Direct writing of anodic oxides for plastic electronics. Npj Flexible Electronics, 2018, 2, .	10.7	16
29	Basic properties mapping of anodic oxides in the hafniumâ€“niobiumâ€“tantalum ternary system. Science and Technology of Advanced Materials, 2018, 19, 554-568.	6.1	4
30	Electrocatalysis on copperâ€“palladium alloys for amperometric formaldehyde sensing. RSC Advances, 2017, 7, 6031-6039.	3.6	10
31	Manganese / zinc ratio influence on the thermal oxide nanostructure in the Mn-Zn-O system. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600809.	1.8	2
32	Non-enzymatic glucose sensing on copper-nickel thin film alloy. Applied Surface Science, 2017, 417, 48-53.	6.1	22
33	Compositionally Dependent Nonlinear Optical Bandgap Behavior of Mixed Anodic Oxides in Niobiumâ€“Titanium System. ACS Combinatorial Science, 2017, 19, 121-129.	3.8	9
34	Copper-nickel combinatorial library screening for electrocatalytic formaldehyde oxidation. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600552.	1.8	4
35	Optimized Design Principles for Siliconâ€Coated Nanostructured Electrode Materials and their Application in Highâ€Capacity Lithiumâ€Ion Batteries. Energy Technology, 2017, 5, 2253-2264.	3.8	8
36	In-Situ Monitoring of Metal Dissolution during Anodization of Tantalum. Journal of the Electrochemical Society, 2017, 164, C598-C601.	2.9	7

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37	Direct observation of metal dissolution during anodization of niobium. Electrochemistry Communications, 2017, 74, 5-8.	4.7	15
38	Anodic oxide formation on aluminium-terbium alloys. Journal of Solid State Electrochemistry, 2016, 20, 1673-1681.	2.5	14
39	Spectroscopic ellipsometry for compositionally induced bandgap tuning of combinatorial niobiumâ€“tantalum anodic oxides. RSC Advances, 2016, 6, 79934-79942.	3.6	5
40	Electrocatalytic oxidation of glucose by screening combinatorial copperâ€“nickel alloys. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1434-1440.	1.8	9
41	Compositional dependent high temperature crystalline phase formation on manganeseâ€“silicon thin film combinatorial libraries in controlled oxidizing atmospheres. Journal of Alloys and Compounds, 2016, 664, 351-362.	5.5	4
42	In situ quantification of electrochemical dissolution of hafnium-tantalum alloys in acidic media. Electrochemistry Communications, 2015, 59, 5-8.	4.7	7
43	Screening of catalytic effects on copperâ€“zinc thin film combinatorial libraries for formaldehyde oxidation. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1184-1190.	1.8	10
44	Palladium thin films for hydrogen sensing in aqueous electrolytes. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1273-1280.	1.8	6
45	Highly customisable scanning droplet cell microscopes using 3D-printing. Journal of Electroanalytical Chemistry, 2015, 740, 53-60.	3.8	57
46	Effect of Different Cobalt Concentrations on Tungsten Trioxide Photoelectrodes for Use in Solar Water Oxidation. Journal of the Electrochemical Society, 2015, 162, H187-H193.	2.9	9
47	Interfacial Oxide Formation during Anodization of Hafnium/Aluminium Superimposed Layers. Electrochimica Acta, 2015, 178, 344-352.	5.2	6
48	Aluminiumâ€“copperâ€“nickel thin film compositional spread: Nickel influence on fundamental alloy properties and chemical stability of copper. Thin Solid Films, 2015, 580, 36-44.	1.8	13
49	Water content and high temperature influence on the oxidation behavior of manganese and silicon thin films on iron matrix. Surface and Coatings Technology, 2015, 265, 145-153.	4.8	3
50	Anodization Behavior of Glassy Metallic Hafnium Thin Films. Journal of the Electrochemical Society, 2015, 162, E30-E36.	2.9	11
51	Localised electrochemical impedance spectroscopy using a scanning droplet cell microscope. Journal of Electroanalytical Chemistry, 2015, 737, 93-99.	3.8	9
52	Multi-Scanning Droplet Cell Microscopy (multi-SDCM) for truly parallel high throughput electrochemical experimentation. Electrochimica Acta, 2015, 179, 32-37.	5.2	25
53	Properties of anodic oxides grown on a hafniumâ€“tantalumâ€“titanium thin film library. Science and Technology of Advanced Materials, 2014, 15, 015006.	6.1	21
54	Copperâ€“nickel oxide thin film library reactively co-sputtered from a metallic sectioned cathode. Journal of Materials Research, 2014, 29, 148-157.	2.6	12

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55	Localized photovoltaic investigations on organic semiconductors and bulk heterojunction solar cells. Science and Technology of Advanced Materials, 2014, 15, 054201.	6.1	1
56	Photoelectrochemical scanning droplet cell microscopy for localized photovoltaic investigations on organic semiconductors. Physical Chemistry Chemical Physics, 2014, 16, 3739.	2.8	11
57	Photoelectrochemical water splitting in a tungsten oxide - nickel oxide thin film material library. Electrochimica Acta, 2014, 140, 275-281.	5.2	17
58	Electrochemistry on binary valve metal combinatorial libraries: niobium-tantalum thin films. Electrochimica Acta, 2014, 140, 366-375.	5.2	12
59	Vapour phase coâ€deposition of Alâ€"Cu thin film alloys. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1006-1012.	1.8	18
60	Surface patterned dielectrics by direct writing of anodic oxides using scanning droplet cell microscopy. Electrochimica Acta, 2013, 113, 755-761.	5.2	12
61	Scanning droplet cell microscopy on a wide range hafniumâ€"niobium thin film combinatorial library. Electrochimica Acta, 2013, 110, 539-549.	5.2	25
62	Characterization of local electrochemical doping of high performance conjugated polymer for photovoltaics using scanning droplet cell microscopy. Electrochimica Acta, 2013, 113, 834-839.	5.2	13
63	Copperâ€"zinc thin films reactively coâ€sputtered from a twoâ€component sectioned cathode. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 994-999.	1.8	4
64	Photoelectrochemical Scanning Droplet Cell Microscopy (PEâ€SDCM). ChemPhysChem, 2013, 14, 560-567.	2.1	27
65	Localized Photoelectrochemistry on a Tungsten Oxideâ€"Iron Oxide Thin Film Material Library. ACS Combinatorial Science, 2013, 15, 601-608.	3.8	26
66	Ultraâ€thin anodic alumina capacitor films for plastic electronics. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 813-818.	1.8	59
67	Back Cover: Ultraâ€thin anodic alumina capacitor films for plastic electronics (Phys. Status Solidi A) Tj ETQq1 1 0.784314 rgBT /Overl	1.8	0
68	Anodic repassivation of low energy Auâ€implanted ultraâ€thin anodic Al₂O₃. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1270-1274.	1.8	2
69	Combinatorial investigation of Hfâ€"Ta thin films and their anodic oxides. Electrochimica Acta, 2010, 55, 7884-7891.	5.2	37
70	Quantitative optical recognition of highly reproducible ultrathin oxide films in microelectrochemical anodization. Review of Scientific Instruments, 2009, 80, 046106.	1.3	38
71	High-throughput study of the anodic oxidation of Hfâ€"Ti thin films. Electrochimica Acta, 2009, 54, 5171-5178.	5.2	20
72	High-throughput synthesis and characterization of anodic oxides on Nbâ€"Ti alloys. Electrochimica Acta, 2009, 54, 5973-5980.	5.2	39

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73	Gold Nanoparticles Partially Embedded in Ultrathin Anodic Alumina Films. Journal of Physical Chemistry C, 2009, 113, 3105-3109.	3.1	5
74	A combinatorial passivation study of Taâ€“Ti alloys. Corrosion Science, 2009, 51, 1519-1527.	6.6	50
75	Combinatorial electrochemistry on Alâ€“Fe alloys. Science and Technology of Advanced Materials, 2008, 9, 035009.	6.1	39
76	Microelectrochemical lithography: A method for direct writing of surface oxides. Electrochimica Acta, 2007, 52, 7865-7869.	5.2	45
77	Effects of adhesion layer (Ti or Zr) and Pt deposition temperature on the properties of PZT thin films deposited by RF magnetron sputtering. Applied Surface Science, 2005, 243, 113-124.	6.1	23
78	The performance of Zr as barrier layer for Pt bottom electrodes in Pb(Zr,Ti)O3 thin film capacitors. Thin Solid Films, 2005, 483, 21-26.	1.8	5
79	Bottom electrode crystallization of PZT thin films for ferroelectric capacitors. Journal of the European Ceramic Society, 2005, 25, 735-741.	5.7	7
80	Bottom electrode crystallization of Pb(Zr,Ti)O3 thin films made by RF magnetron sputtering. Journal of Physics Condensed Matter, 2005, 17, 7263-7273.	1.8	1
81	Bottom Electrode Crystallization of PZT Thin Films Deposited by Laser Ablation. Japanese Journal of Applied Physics, 2004, 43, 1527-1531.	1.5	6
82	Bottom electrode crystallization method for heat treatments on thin films. Review of Scientific Instruments, 2004, 75, 2950-2954.	1.3	2
83	Effect of the deposition conditions of platinum electrodes on their performance as resistive heating elements. Materials Research, 2004, 7, 427-430.	1.3	3
84	Pulsed laser deposition of SiO2 - P2O5 - CaO - MgO glass coatings on titanium substrates. Materials Research, 2004, 7, 431-436.	1.3	10
85	Deposition of bioactive glass-ceramic thin-films by RF magnetron sputtering. Journal of the European Ceramic Society, 2003, 23, 1027-1030.	5.7	53
86	Barium Metaplumbate Thin Film Electrodes for Ferroelectric Devices. Ferroelectrics, 2003, 293, 177-188.	0.6	2
87	Simple Method for Crystallizing Ceramic Thin Films Using Platinum Bottom Electrodes as Resistive Heating Elements. Japanese Journal of Applied Physics, 2003, 42, L863-L865.	1.5	7
88	Mixed oxide growth on combinatorial aluminiumâ€“gadolinium alloys â€" a thermodynamic and first-principles approach. Journal of Solid State Electrochemistry, 0, , 1.	2.5	0