Alireza Sabour Rouh Aghdam

List of Publications by Year
in descending order

96 papers	4,190 citations	101535 36 h-index	138468 58 g-index
97 all docs	97 docs citations	97 times ranked	2951 citing authors

#	Article	IF	Citations
1	Electrodeposition of Ni-Fe alloys, composites, and nano coatingsâ€“A review. Journal of Alloys and Compounds, 2017, 691, 841-859.	5.5	262
2	Ni-W electrodeposited coatings: Characterization, properties and applications. Surface and Coatings Technology, 2016, 307, 978-1010.	4.8	189
3	Three-dimensional Ni-Co alloy hierarchical nanostructure as efficient non-noble-metal electrocatalyst for hydrogen evolution reaction. Applied Surface Science, 2019, 465, 846-862.	6.1	143
4	Electrodeposited Ni Co P hierarchical nanostructure as a cost-effective and durable electrocatalyst with superior activity for bifunctional water splitting. Journal of Power Sources, 2019, 429, 156-167.	7.8	120
5	Electrodeposition of Niâ€“Wâ€“Al2O3 nanocomposite coating with functionally graded microstructure. Journal of Alloys and Compounds, 2016, 666, 217-226.	5.5	118
6	Effect of alumina sol addition to micro-arc oxidation electrolyte on the properties of MAO coatings formed on magnesium alloy AZ91D. Journal of Alloys and Compounds, 2010, 496, 548-552.	5.5	116
7	Facile electrodeposition of ternary Ni-Fe-Co alloy nanostructure as a binder free, cost-effective and durable electrocatalyst for high-performance overall water splitting. Journal of Colloid and Interface Science, 2019, 547, 407-420.	9.4	115
8	A comprehensive review on ultrasonic spray pyrolysis technique: Mechanism, main parameters and applications in condensed matter. Journal of Analytical and Applied Pyrolysis, 2019, 141, 104631.	5.5	92
9	Nickel nanocones as efficient and stable catalyst for electrochemical hydrogen evolution reaction. International Journal of Hydrogen Energy, 2017, 42, 14560-14565.	7.1	83
10	Abrasive wear behaviour of Si3N4/TiO2 nanocomposite coatings fabricated by plasma electrolytic oxidation. Surface and Coatings Technology, 2010, 205, S41-S46.	4.8	77
11	Electrodeposition of Niâ€“Fe and Niâ€“Fe-(nano Al 2 O 3) multilayer coatings. Journal of Alloys and Compounds, 2016, 657, 526-536.	5.5	77
12	Nano-Fabrication by Cathodic Plasma Electrolysis. Critical Reviews in Solid State and Materials Sciences, 2011, 36, 174-190.	12.3	71
13	Effect of lanthanum nitrate on the microstructure and electrochemical behavior of PEO coatings on AZ31 Mg alloy. Journal of Alloys and Compounds, 2017, 719, 242-255.	5.5	69
14	Effects of various nitriding parameters on active screen plasma nitriding behavior of a low-alloy steel. Vacuum, 2006, 80, 1032-1037.	3.5	68
15	Microstructural, protective, inhibitory and semiconducting properties of PEO coatings containing CeO2 nanoparticles formed on AZ31 Mg alloy. Surface and Coatings Technology, 2018, 352, 561-580.	4.8	66
16	Improvement of high velocity oxy-fuel spray coatings by thermal post-treatments: A critical review. Thin Solid Films, 2019, 678, 42-52.	1.8	61
17	Microstructural characteristics and oxidation behavior of the modified MCrAlX coatings: A critical review. Vacuum, 2021, 185, 109980.	3.5	60
18	Mechanical behavior of TiN/TiC multilayer coatings fabricated by plasma assisted chemical vapor deposition on AISI H13 hot work tool steel. Surface and Coatings Technology, 2014, 245, 156-166.	4.8	59

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19	Surface modification of 30CrNiMo8 low-alloy steel by active screen setup and conventional plasma nitriding methods. Applied Surface Science, 2007, 254, 1427-1435.	6.1	56
20	Investigation of rare earth sealing of porous micro-arc oxidation coating formed on AZ91D magnesium alloy. Journal of Rare Earths, 2012, 30, 1293-1297.	4.8	56
21	Tribological properties of Ni-Fe-Co multilayer coatings fabricated by pulse electrodeposition. Tribology International, 2017, 106, 34-40.	5.9	54
22	Corrosion and wettability of PEO coatings on magnesium by addition of potassium stearate. Journal of Magnesium and Alloys, 2017, 5, 210-216.	11.9	52
23	Structural characteristics and high-temperature oxidation behavior of HVOF sprayed nano-CeO2 reinforced NiCoCrAlY nanocomposite coatings. Surface and Coatings Technology, 2019, 373, 7-16.	4.8	49
24	Microstructure formation in thermally-sprayed duplex and functionally graded NiCrAlY/Yttria-Stabilized Zirconia coatings. Surface and Coatings Technology, 2007, 201, 6019-6024.	4.8	48
25	Corrosion protection of mild steel by applying TiO2 nanoparticle coating via sol-gel method. Protection of Metals and Physical Chemistry of Surfaces, 2009, 45, 305-311.	1.1	48
26	The influence of active screen plasma nitriding parameters on corrosion behavior of a low-alloy steel. Journal of Alloys and Compounds, 2009, 484, 222-229.	5.5	48
27	Evaluation of alumina nanoparticles concentration and stirring rate on wear and corrosion behavior of nanocomposite PEO coating on AZ31 magnesium alloy. Surface and Coatings Technology, 2017, 309, 124-135.	4.8	48
28	Wear and coating removal mechanism of alumina/titania nanocomposite layer fabricated by plasma electrolysis. Surface and Coatings Technology, 2011, 205, S57-S62.	4.8	47
29	Corrosion and cathodic disbondment resistance of epoxy coating on zinc phosphate conversion coating containing Ni 2+ and Co 2+. Journal of Industrial and Engineering Chemistry, 2017, 47, 154-168.	5.8	47
30	Electrochemical tailoring of ternary Ni-W-Co(Al2O3) nanocomposite using pulse reverse technique. Journal of Alloys and Compounds, 2017, 705, 788-800.	5.5	46
31	Electrodeposition mechanism and corrosion behavior of multilayer nanocrystalline nickel-tungsten alloy. Electrochimica Acta, 2017, 258, 883-899.	5.2	46
32	Synergistic effect of CeO2 and Al2O3 nanoparticle dispersion on the oxidation behavior of MCrAlY coatings deposited by HVOF. Ceramics International, 2020, 46, 4556-4567.	4.8	46
33	Nanocrystalline Structure Produced by Complex Surface Treatments: Plasma Electrolytic Nitrocarburizing, Boronitriding, Borocarburizing, and Borocarbonitriding. Plasma Processes and Polymers, 2007, 4, S721-S727.	3.0	45
34	Facile fabrication of uniform hierarchical structured (UHS) nanocomposite surface with high water repellency and self-cleaning properties. Applied Surface Science, 2018, 436, 1134-1146.	6.1	42
35	Growth kinetics and morphology of plasma electrolytic oxidation coating on aluminum. Materials Chemistry and Physics, 2017, 185, 162-175.	4.0	41
36	Role of lanthanum nitrate in protective performance of PEO/epoxy double layer on AZ31 Mg alloy: Electrochemical and thermodynamic investigations. Journal of Industrial and Engineering Chemistry, 2017, 53, 213-227.	5.8	40

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37	Evaluation of La containing PEO pretreatment on protective performance of epoxy coating on magnesium. Progress in Organic Coatings, 2017, 105, 258-266.	3.9	39
38	A novel combined method for fabrication of stable corrosion resistance superhydrophobic surface on Al alloy. Corrosion Science, 2019, 159, 108144.	6.6	39
39	Tribological properties of PEO nanocomposite coatings on titanium formed in electrolyte containing ketoconazole. Tribology International, 2016, 102, 463-471.	5.9	37
40	Electrodeposition of multilayer Niâ€“W and Niâ€“Wâ€“alumina nanocomposite coatings. Surface Engineering, 2017, 33, 327-336.	2.2	37
41	Growth kinetics and morphology of microarc oxidation coating on titanium. Surface and Coatings Technology, 2017, 315, 567-576.	4.8	37
42	Improvement in corrosion resistance of micro arc oxidation coating formed on AZ91D magnesium alloy via applying a nano-crystalline solâ€“gel layer. Journal of Sol-Gel Science and Technology, 2011, 59, 297-303.	2.4	36
43	Effects of duty cycle on microstructure and corrosion behavior of TiC coatings prepared by DC pulsed plasma CVD. Applied Surface Science, 2012, 258, 3051-3057.	6.1	36
44	Optimization of mechanical properties for pulsed anodizing of aluminum. Surface and Coatings Technology, 2017, 310, 17-24.	4.8	36
45	Mechanical properties of multilayer Ni-Fe and Ni-Fe-Al2O3 nanocomposite coating. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 448-456.	5.6	36
46	A novel method for preparing aluminum diffusion coating by nanocrystalline plasma electrolysis. Electrochemistry Communications, 2007, 9, 2686-2691.	4.7	32
47	Nanostructural and electrochemical characteristics of cerium oxide thin films deposited on AA5083-H321 aluminum alloy substrates by dip immersion and solâ€“gel methods. Thin Solid Films, 2009, 517, 4792-4799.	1.8	32
48	Si3N4/Ni nanocomposite formed by electroplating: Effect of average size of nanoparticulates. Transactions of Nonferrous Metals Society of China, 2010, 20, 1017-1023.	4.2	32
49	EIS study of nano crystalline Ni-cerium oxide coating electrodeposition mechanism. Journal of Alloys and Compounds, 2011, 509, 1924-1930.	5.5	32
50	N-doped ZnO-CuO nanocomposite prepared by one-step ultrasonic spray pyrolysis and its photocatalytic activity. Chemical Physics Letters, 2018, 705, 19-22.	2.6	32
51	Structure and corrosion resistance of Ti/TiC coatings fabricated by plasma immersion ion implantation and deposition on nickelâ€“titanium. Surface and Coatings Technology, 2013, 229, 151-155.	4.8	31
52	Electrical characteristics and discharge properties of hybrid plasma electrolytic oxidation on titanium. Journal of Alloys and Compounds, 2017, 728, 464-475.	5.5	31
53	Preparation and characterization of Niâ€“P/nanodiamond coatings: Effects of surfactants. Diamond and Related Materials, 2013, 31, 30-37.	3.9	30
54	Evaluation of Nanocrystalline Microstructure, Abrasion, and Corrosion Properties of Carbon Steel Treated by Plasma Electrolytic Boriding. Plasma Processes and Polymers, 2007, 4, S711-S716.	3.0	29

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55	Characterization of PEO nanocomposite coatings on titanium formed in electrolyte containing atenolol. Surface and Coatings Technology, 2016, 304, 438-449.	4.8	29
56	Preparation, characterization and oxidation behavior of CeO2-gradient NiCrAlY coatings applied by HVOF thermal spraying process. Ceramics International, 2020, 46, 20500-20509.	4.8	29
57	Structure and wettability of pulsed electrodeposited Ni-W-Cu-(Î±-alumina) nanocomposite. Surface and Coatings Technology, 2016, 307, 525-533.	4.8	28
58	Electrodeposition of Niâ€“Mo and Niâ€“Mo-(nano Al₂O₃) multilayer coatings. Surface Engineering, 2018, 34, 423-432.	2.2	28
59	Pulsed nanocrystalline plasma electrolytic carburising for corrosion protection of a Î³-TiAl alloy. Journal of Alloys and Compounds, 2008, 460, 614-618.	5.5	27
60	Wettability and corrosion of alumina embedded nanocomposite MAO coating on nanocrystalline AZ31B magnesium alloy. Journal of Alloys and Compounds, 2015, 649, 666-673.	5.5	27
61	Functionally Graded Coating of Ni-Fe Fabricated by Pulse Electrodeposition. Journal of Materials Engineering and Performance, 2016, 25, 5494-5501.	2.5	27
62	Neural networks prediction of different frequencies effects on corrosion resistance obtained from pulsed nanocrystalline plasma electrolytic carburizing. Materials Letters, 2008, 62, 2192-2195.	2.6	26
63	Fabrication of TiC/WC ultra hard nanocomposite layers by plasma electrolysis and study of its characteristics. Surface and Coatings Technology, 2010, 205, S51-S56.	4.8	26
64	A study on nanostructured in-situ oxide dispersed NiAl coating and its high temperature oxidation behavior. Surface and Coatings Technology, 2015, 276, 704-713.	4.8	26
65	Niâ€“Feâ€“Al2O3 electrodeposited nanocomposite coating with functionally graded microstructure. Bulletin of Materials Science, 2016, 39, 857-864.	1.7	26
66	A comprehensive study on the microstructure evolution and oxidation resistance of conventional and nanocrystalline MCrAlY coatings. Scientific Reports, 2021, 11, 875.	3.3	26
67	Characterization of the microstructure and texture of functionally graded nickel-Al2O3 nano composite coating produced by pulse deposition. Surface and Coatings Technology, 2013, 232, 851-859.	4.8	25
68	Effect of surface nanostructuring of aluminum alloy on post plasma electrolytic oxidation. Applied Surface Science, 2014, 317, 962-969.	6.1	25
69	Functionally graded nickelâ€“tungsten coating: electrodeposition, corrosion and wear behaviour. Canadian Metallurgical Quarterly, 2016, 55, 303-311.	1.2	25
70	Morphology and corrosion resistance of hybrid plasma electrolytic oxidation on CP-Ti. Surface and Coatings Technology, 2017, 322, 59-69.	4.8	25
71	Effect of the duty cycle of pulsed current on nanocomposite layers formed by pulsed electrodeposition. Rare Metals, 2010, 29, 209-213.	7.1	24
72	Fabrication of functionally gradient nanocomposite coatings by plasma electrolytic oxidation based on variable duty cycle. Applied Surface Science, 2012, 258, 2093-2097.	6.1	24

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73	Carburizing of low-melting-point metals by pulsed nanocrystalline plasma electrolytic carburizing. Surface and Coatings Technology, 2008, 202, 5493-5496.	4.8	22
74	SUPERHYDROPHOBIC COPPER SURFACES BY SHOT PEENING AND CHEMICAL TREATMENT. Surface Review and Letters, 2017, 24, 1750093.	1.1	22
75	Abrasive wear behavior of nano-ceria modified NiCoCrAlY coatings deposited by the high-velocity oxy-fuel process. Materials Research Express, 2019, 6, 1250d6.	1.6	22
76	The hot corrosion behaviour of HVOF sprayed MCrAlX coatings under Na2SO4 (+NaCl) salt films. Materials and Corrosion - Werkstoffe Und Korrosion, 2003, 54, 687-693.	1.5	21
77	Nanostructured layer formed on CP-Ti by plasma electrolysis (effect of voltage and duty cycle of) Tj ETQq1 1 0.784314 rgBT /Overlock	4.0	21
78	Effect of plasma CVD operating temperature on nanomechanical properties of TiC nanostructured coating investigated by atomic force microscopy. Materials Research Bulletin, 2012, 47, 2200-2205.	5.2	21
79	Electrodeposition of Niâ€“Feâ€“Mn/Al₂O₃ functionally graded nanocomposite coatings. Surface Engineering, 2017, 33, 122-130.	2.2	21
80	Impact of MCrAlY feedstock powder modification by high-energy ball milling on the microstructure and high-temperature oxidation performance of HVOF-sprayed coatings. Surface and Coatings Technology, 2020, 395, 125935.	4.8	21
81	Effect of SMAT preprocessing on MAO fabricated nanocomposite coating. Surface Engineering, 2014, 30, 244-255.	2.2	19
82	Preparation of NiCrAlY/nano-CeO2 powder with the core-shell structure using high-velocity oxy-fuel spraying process. Materials Chemistry and Physics, 2020, 243, 122551.	4.0	19
83	Effect of vacuum heat treatment on the oxidation kinetics of freestanding nanostructured NiCoCrAlY coatings deposited by high-velocity oxy-fuel spraying. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	18
84	Conductive microbial cellulose as a novel biocathode for Cr (VI) bioreduction. Carbohydrate Polymers, 2017, 162, 56-61.	10.2	17
85	Correlation between the duty cycle and the surface characteristics for the nanostructured titanium aluminum nitride coating deposited by pulsed-DC PACVD technique. Journal of Alloys and Compounds, 2017, 711, 530-540.	5.5	16
86	A study on the effect of nano-CeO2 dispersion on the characteristics of thermally-grown oxide (TGO) formed on NiCoCrAlY powders and coatings during isothermal oxidation. Journal of Alloys and Compounds, 2020, 835, 155319.	5.5	16
87	Effect of heat treatment on corrosion properties of mixed sol gel silicaâ€“titania (7â€“3) coating. Journal of Non-Crystalline Solids, 2011, 357, 1141-1146.	3.1	14
88	Isothermal and Cyclic Oxidation Behavior of HVOF-Sprayed NiCoCrAlY Coatings: Comparative Investigations on the Conventional and Nanostructured Coatings. Journal of Thermal Spray Technology, 2020, 29, 1926-1942.	3.1	13
89	Mechanism of the oxide scale formation in thermally-sprayed NiCoCrAlY coatings modified by CeO2 nanoparticles. Materials Today Communications, 2020, 24, 101357.	1.9	13
90	Synthesis and characterization of photocatalytically active crumpled-shape nanocomposites of nitrogen and sulfur co-doped ZnOâ€“CeO2. Solar Energy Materials and Solar Cells, 2019, 203, 110195.	6.2	12

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91	The formation, microstructure and hot corrosion behaviour of slurry aluminide coating modified by Ni/Ni-Co electrodeposited layer on Ni-base superalloy. Surface and Coatings Technology, 2020, 402, 126283.	4.8	12
92	A comparative study on the microstructure evolution of conventional and nanostructured MCrAlY powders at high-temperature. Surface and Coatings Technology, 2020, 389, 125629.	4.8	12
93	Characterization of MCrAlY/nano-Al2O3 nanocomposite powder produced by high-energy mechanical milling as feedstock for high-velocity oxygen fuel spraying deposition. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 1534-1543.	4.9	10
94	Microstructural analysis and surface studies on Ag-Ge alloy coatings prepared by electrodeposition technique. Journal of Materials Science, 2021, 56, 6427-6447.	3.7	7
95	Improved tribological properties of TiC with porous nanostructured TiO2 intermediate layer. Materials Chemistry and Physics, 2011, 131, 420-424.	4.0	4
96	Oxidation Behavior of Nanostructured Ni-5Al Coating. A case Study on Monophase Coatings. Protection of Metals and Physical Chemistry of Surfaces, 2018, 54, 1066-1075.	1.1	1