M Mahdavian

List of Publications by Year
in descending order

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203 papers	12,438 citations	17440 63 h-index	33894 99 g-index
207 all docs	207 docs citations	207 times ranked	6054 citing authors

#	Article	IF	Citations
1	Enhancement of barrier and corrosion protection performance of an epoxy coating through wet transfer of amino functionalized graphene oxide. Corrosion Science, 2016, 103, 283-304.	6.6	647
2	Glycyrrhiza glabra leaves extract as a green corrosion inhibitor for mild steel in 1 M hydrochloric acid solution: Experimental, molecular dynamics, Monte Carlo and quantum mechanics study. Journal of Molecular Liquids, 2018, 255, 185-198.	4.9	346
3	Covalently-grafted graphene oxide nanosheets to improve barrier and corrosion protection properties of polyurethane coatings. Carbon, 2015, 93, 555-573.	10.3	324
4	Enhancement of the corrosion protection performance and cathodic delamination resistance of epoxy coating through treatment of steel substrate by a novel nanometric sol-gel based silane composite film filled with functionalized graphene oxide nanosheets. Corrosion Science, 2016, 109, 182-205.	6.6	305
5	Another approach in analysis of paint coatings with EIS measurement: Phase angle at high frequencies. Corrosion Science, 2006, 48, 4152-4157.	6.6	295
6	Effects of highly crystalline and conductive polyaniline/graphene oxide composites on the corrosion protection performance of a zinc-rich epoxy coating. Chemical Engineering Journal, 2017, 320, 363-375.	12.7	265
7	Development of metal-organic framework (MOF) decorated graphene oxide nanoplatforms for anti-corrosion epoxy coatings. Carbon, 2020, 161, 231-251.	10.3	260
8	Corrosion inhibition performance of 2-mercaptobenzimidazole and 2-mercaptobenzoxazole compounds for protection of mild steel in hydrochloric acid solution. Electrochimica Acta, 2010, 55, 1720-1724.	5.2	239
9	A comparative study on fabrication of a highly effective corrosion protective system based on graphene oxide-polyaniline nanofibers/epoxy composite. Corrosion Science, 2018, 133, 358-373.	6.6	193
10	A comparative study on corrosion inhibitive effect of nitrate and phosphate intercalated Zn-Al-layered double hydroxides (LDHs) nanocontainers incorporated into a hybrid silane layer and their effect on cathodic delamination of epoxy topcoat. Corrosion Science, 2017, 115, 159-174.	6.6	178
11	Persian Liquorice extract as a highly efficient sustainable corrosion inhibitor for mild steel in sodium chloride solution. Journal of Cleaner Production, 2019, 210, 660-672.	9.3	178
12	The application of benzimidazole and zinc cations intercalated sodium montmorillonite as smart ion exchange inhibiting pigments in the epoxy ester coating. Corrosion Science, 2015, 94, 207-217.	6.6	176
13	Self-healing anticorrosive organic coating based on an encapsulated water reactive silyl ester: Synthesis and proof of concept. Progress in Organic Coatings, 2011, 70, 142-149.	3.9	166
14	Electrochemical impedance spectroscopy and electrochemical noise measurements as tools to evaluate corrosion inhibition of azole compounds on stainless steel in acidic media. Corrosion Science, 2013, 75, 269-279.	6.6	159
15	Characterization of covalently-grafted polyisocyanate chains onto graphene oxide for polyurethane composites with improved mechanical properties. Chemical Engineering Journal, 2015, 281, 869-883.	12.7	145
16	A detailed atomic level computational and electrochemical exploration of the Juglans regia green fruit shell extract as a sustainable and highly efficient green corrosion inhibitor for mild steel in 3.5â€¯wt% NaCl solution. Journal of Molecular Liquids, 2019, 284, 682-699.	4.9	138
17	Inhibitor-loaded conducting polymer capsules for active corrosion protection of coating defects. Corrosion Science, 2016, 112, 138-149.	6.6	123
18	The effect of inhibitor structure on the corrosion of AA2024 and AA7075. Corrosion Science, 2011, 53, 2184-2190.	6.6	119

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19	Hybrid silane coating reinforced with silanized graphene oxide nanosheets with improved corrosion protective performance. RSC Advances, 2016, 6, 54102-54112.	3.6	117
20	Synthesis of graphene oxide nanosheets functionalized by green corrosion inhibitive compounds to fabricate a protective system. Corrosion Science, 2017, 127, 240-259.	6.6	116
21	Synthesis of graphene oxide nanosheets decorated by nanoporous zeolite-imidazole (ZIF-67) based metal-organic framework with controlled-release corrosion inhibitor performance: Experimental and detailed DFT-D theoretical explorations. Journal of Hazardous Materials, 2021, 404, 124068.	12.4	114
22	Rational assembly of mussel-inspired polydopamine (PDA)-Zn (II) complex nanospheres on graphene oxide framework tailored for robust self-healing anti-corrosion coatings application. Chemical Engineering Journal, 2020, 391, 123630.	12.7	113
23	Superior corrosion protection and adhesion strength of epoxy coating applied on AZ31 magnesium alloy pre-treated by PEO/Silane with inorganic and organic corrosion inhibitors. Corrosion Science, 2021, 178, 109065.	6.6	110
24	Active corrosion protection of Mg-Al-PO 4 3â˜ LDH nanoparticle in silane primer coated with epoxy on mild steel. Journal of the Taiwan Institute of Chemical Engineers, 2017, 75, 248-262.	5.3	108
25	Electrochemical behaviour of some transition metal acetylacetonate complexes as corrosion inhibitors for mild steel. Corrosion Science, 2009, 51, 409-414.	6.6	103
26	Corrosion inhibition performance of three imidazole derivatives on mild steel in 1M phosphoric acid. Materials Chemistry and Physics, 2010, 124, 1205-1209.	4.0	102
27	Assessment of the smart self-healing corrosion protection properties of a water-base hybrid organo-silane film combined with non-toxic organic/inorganic environmentally friendly corrosion inhibitors on mild steel. Journal of Cleaner Production, 2019, 220, 340-356.	9.3	102
28	Application of nanoporous cobalt-based ZIF-67 metal-organic framework (MOF) for construction of an epoxy-composite coating with superior anti-corrosion properties. Corrosion Science, 2021, 178, 109099.	6.6	98
29	Timeâ€“frequency methods for trend removal in electrochemical noise data. Electrochimica Acta, 2012, 70, 199-209.	5.2	97
30	Fabrication and characterization of graphene-based carbon hollow spheres for encapsulation of organic corrosion inhibitors. Chemical Engineering Journal, 2018, 352, 909-922.	12.7	97
31	Construction of a highly effective self-repair corrosion-resistant epoxy composite through impregnation of 1H-Benzimidazole corrosion inhibitor modified graphene oxide nanosheets (GO-BIM). Corrosion Science, 2018, 145, 119-134.	6.6	95
32	Synthesis of polyaniline-modified graphene oxide for obtaining a high performance epoxy nanocomposite film with excellent UV blocking/anti-oxidant/ anti-corrosion capabilities. Composites Part B: Engineering, 2019, 173, 106804.	12.0	95
33	In-situ synthesis of Zn doped polyaniline on graphene oxide for inhibition of mild steel corrosion in 3.5 wt.% chloride solution. Journal of Industrial and Engineering Chemistry, 2018, 63, 322-339.	5.8	94
34	Evaluation of the corrosion protection performance of mild steel coated with hybrid sol-gel silane coating in 3.5 wt.% NaCl solution. Progress in Organic Coatings, 2018, 123, 190-200.	3.9	94
35	Fabrication of a Highly Tunable Graphene Oxide Composite through Layer-by-Layer Assembly of Highly Crystalline Polyaniline Nanofibers and Green Corrosion Inhibitors: Complementary Experimental and First-Principles Quantum-Mechanics Modeling Approaches. Journal of Physical Chemistry C, 2017, 121, 20433-20450.	3.1	92
36	Investigation on zinc phosphate effectiveness at different pigment volume concentrations via electrochemical impedance spectroscopy. Electrochimica Acta, 2005, 50, 4645-4648.	5.2	91

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37	Synthesis and characterization of a new generation of inhibitive pigment based on zinc acetate/benzotriazole: Solution phase and coating phase studies. Dyes and Pigments, 2015, 122, 331-345.	3.7	90
38	SECM study of defect repair in self-healing polymer coatings on metals. Electrochemistry Communications, 2011, 13, 169-173.	4.7	89
39	Application of layer-by-layer assembled graphene oxide nanosheets/polyaniline/zinc cations for construction of an effective epoxy coating anti-corrosion system. Journal of Alloys and Compounds, 2019, 800, 532-549.	5.5	89
40	Development of an active/barrier bi-functional anti-corrosion system based on the epoxy nanocomposite loaded with highly-coordinated functionalized zirconium-based nanoporous metal-organic framework (Zr-MOF). Chemical Engineering Journal, 2021, 408, 127361.	12.7	89
41	Surface modification of Fe 2 O 3 nanoparticles with 3-aminopropyltrimethoxysilane (APTMS): An attempt to investigate surface treatment on surface chemistry and mechanical properties of polyurethane/Fe 2 O 3 nanocomposites. Applied Surface Science, 2014, 320, 60-72.	6.1	85
42	Corrosion inhibition of mild steel in sodium chloride solution by some zinc complexes. Corrosion Science, 2011, 53, 1194-1200.	6.6	84
43	Effective PEO/Silane pretreatment of epoxy coating applied on AZ31B Mg alloy for corrosion protection. Corrosion Science, 2020, 169, 108608.	6.6	84
44	Corrosion inhibition by lithium zinc phosphate pigment. Corrosion Science, 2013, 77, 222-229.	6.6	81
45	pH responsive Ce(III) loaded polyaniline nanofibers for self-healing corrosion protection of AA2024-T3. Progress in Organic Coatings, 2016, 99, 197-209.	3.9	81
46	Effect of aging time on corrosion inhibition of cationic surfactant on mild steel in sulfamic acid cleaning solution. Corrosion Science, 2013, 70, 46-54.	6.6	80
47	Studying various mixtures of 3-aminopropyltriethoxysilane (APS) and tetraethylorthosilicate (TEOS) silanes on the corrosion resistance of mild steel and adhesion properties of epoxy coating. International Journal of Adhesion and Adhesives, 2015, 63, 166-176.	2.9	77
48	Comparison of the synergistic effects of inhibitor mixtures tailored for enhanced corrosion protection of bare and coated AA2024-T3. Surface and Coatings Technology, 2016, 303, 342-351.	4.8	76
49	On the importance of irreversibility of corrosion inhibitors for active coating protection of AA2024-T3. Corrosion Science, 2018, 140, 272-285.	6.6	75
50	A Novel Approach for the Evaluation of Under Deposit Corrosion in Marine Environments Using Combined Analysis by Electrochemical Impedance Spectroscopy and Electrochemical Noise. Electrochimica Acta, 2016, 217, 226-241.	5.2	74
51	One-pot synthesis and construction of a high performance metal-organic structured nano pigment based on nanoceria decorated cerium (III)-imidazole network (NC/CIN) for effective epoxy composite coating anti-corrosion and thermo-mechanical properties improvement. Chemical Engineering Journal, 2020, 382, 122820.	12.7	74
52	Evaluation of the corrosion protection properties of an epoxy coating containing solâ€“gel surface modified nano-zirconia on mild steel. RSC Advances, 2015, 5, 28769-28777.	3.6	72
53	Corrosion inhibition properties of a green hybrid pigment based on Pr-Urtica Dioica plant extract. Journal of Industrial and Engineering Chemistry, 2018, 66, 116-125.	5.8	72
54	Corrosion of mild steel in hydrochloric acid solution in the presence of two cationic gemini surfactants with and without hydroxyl substituted spacers. Corrosion Science, 2018, 137, 62-75.	6.6	71

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55	Fabrication and Characterization of PO₄^{3â^'}Intercalated Zn-Al- Layered Double Hydroxide Nanocontainer. Journal of the Electrochemical Society, 2016, 163, C495-C505.	2.9	70
56	A study on the corrosion inhibition properties of silane-modified Fe2O3 nanoparticle on mild steel and its effect on the anticorrosion properties of the polyurethane coating. Journal of Coatings Technology Research, 2015, 12, 277-292.	2.5	69
57	Enhanced corrosion protection of mild steel by the synergetic effect of zinc aluminum polyphosphate and 2-mercaptobenzimidazole inhibitors incorporated in epoxy-polyamide coatings. Corrosion Science, 2018, 138, 372-379.	6.6	69
58	Fabrication and characterization of layered double hydroxide/silane nanocomposite coatings for protection of mild steel. Journal of the Taiwan Institute of Chemical Engineers, 2017, 80, 924-934.	5.3	69
59	The influence of nanosilver on thermal and antibacterial properties of a 2K waterborne polyurethane coating. Progress in Organic Coatings, 2012, 75, 344-348.	3.9	68
60	Effect of surface roughness and chemistry on the adhesion and durability of a steel-epoxy adhesive interface. International Journal of Adhesion and Adhesives, 2020, 96, 102450.	2.9	68
61	Mechanistic approach for evaluation of the corrosion inhibition of potassium zinc phosphate pigment on the steel surface: Application of surface analysis and electrochemical techniques. Dyes and Pigments, 2014, 109, 189-199.	3.7	67
62	Green production of bioactive components from herbal origins through one-pot oxidation/polymerization reactions and application as a corrosion inhibitor for mild steel in HCl solution. Journal of the Taiwan Institute of Chemical Engineers, 2019, 105, 134-149.	5.3	67
63	Transient analysis through Hilbert spectra of electrochemical noise signals for the identification of localized corrosion of stainless steel. Electrochimica Acta, 2013, 104, 84-93.	5.2	66
64	A combined mechanical, microscopic and local electrochemical evaluation of self-healing properties of shape-memory polyurethane coatings. Electrochimica Acta, 2011, 56, 9619-9626.	5.2	65
65	A combinatorial matrix of rare earth chloride mixtures as corrosion inhibitors of AA2024-T3: Optimisation using potentiodynamic polarisation and EIS. Electrochimica Acta, 2012, 67, 95-103.	5.2	64
66	Study of the active corrosion protection properties of epoxy ester coating with zeolite nanoparticles doped with organic and inorganic inhibitors. Journal of the Taiwan Institute of Chemical Engineers, 2018, 85, 207-220.	5.3	64
67	Eriobotrya japonica Lindl leaves extract application for effective corrosion mitigation of mild steel in HCl solution: Experimental and computational studies. Construction and Building Materials, 2019, 220, 161-176.	7.2	64
68	Facile size and chemistry-controlled synthesis of mussel-inspired bio-polymers based on Polydopamine Nanospheres: Application as eco-friendly corrosion inhibitors for mild steel against aqueous acidic solution. Journal of Molecular Liquids, 2020, 298, 111974.	4.9	64
69	A Critical Appraisal of the Interpretation of Electrochemical Noise for Corrosion Studies. Corrosion, 2014, 70, 971-987.	1.1	62
70	Electrochemical behavior of organic and inorganic complexes of Zn(II) as corrosion inhibitors for mild steel: Solution phase study. Electrochimica Acta, 2009, 54, 6892-6895.	5.2	61
71	A closer look at constituent induced localised corrosion in Al-Cu-Mg alloys. Corrosion Science, 2016, 113, 160-171.	6.6	61
72	Highly potent radical scavenging-anti-oxidant activity of biologically reduced graphene oxide using Nettle extract as a green bio-genic amines-based reductants source instead of hazardous hydrazine hydrate. Journal of Hazardous Materials, 2019, 371, 609-624.	12.4	60

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73	An investigation on the corrosion behavior of the epoxy coating embedded with mesoporous silica nanocontainer loaded by sulfamethazine inhibitor. Progress in Organic Coatings, 2019, 128, 75-81.	3.9	60
74	A combined redox-competition and negative-feedback SECM study of self-healing anticorrosive coatings. Electrochemistry Communications, 2011, 13, 1094-1097.	4.7	59
75	Magnetron-sputtered copper/diamond-like carbon composite thin films with super anti-corrosion properties. Surface and Coatings Technology, 2018, 333, 148-157.	4.8	59
76	A facile synthesis method of an effective anti-corrosion nanopigment based on zinc polyphosphate through microwaves assisted combustion method; comparing the influence of nanopigment and conventional zinc phosphate on the anti-corrosion properties of an epoxy coating. Journal of Alloys and Compounds, 2018, 762, 730-744.	5.5	57
77	Self-healing epoxy nanocomposite coatings based on dual-encapsulation of nano-carbon hollow spheres with film-forming resin and curing agent. Composites Part B: Engineering, 2019, 175, 107087.	12.0	57
78	Mechanical and Corrosion Protection Properties of a Smart Composite Epoxy Coating with Dual-Encapsulated Epoxy/Polyamine in Carbon Nanospheres. Industrial & Engineering Chemistry Research, 2019, 58, 3033-3046.	3.7	55
79	Evaluation of zinc phosphate and zinc chromate effectiveness via AC and DC methods. Progress in Organic Coatings, 2005, 53, 191-194.	3.9	54
80	A comparative study on the electrochemical behavior of mild steel in sulfamic acid solution in the presence of monomeric and gemini surfactants. Electrochimica Acta, 2011, 58, 488-496.	5.2	54
81	Comparison of a Cationic Gemini Surfactant and the Corresponding Monomeric Surfactant for Corrosion Protection of Mild Steel in Hydrochloric Acid. Journal of Surfactants and Detergents, 2011, 14, 605-613.	2.1	54
82	Influence of HEPES buffer on the local pH and formation of surface layer during in vitro degradation tests of magnesium in DMEM. Progress in Natural Science: Materials International, 2014, 24, 531-538.	4.4	54
83	An advanced approach for fabricating a reduced graphene oxide-AZO dye/polyurethane composite with enhanced ultraviolet (UV) shielding properties: Experimental and first-principles QM modeling. Chemical Engineering Journal, 2017, 321, 159-174.	12.7	53
84	Corrosion Protection of Steel with Zinc Phosphate Conversion Coating and Post-Treatment by Hybrid Organic-Inorganic Sol-Gel Based Silane Film. Journal of the Electrochemical Society, 2017, 164, C224-C230.	2.9	53
85	Influence of surface hydroxyls on the formation of Zr-based conversion coatings on AA6014 aluminum alloy. Surface and Coatings Technology, 2014, 254, 277-283.	4.8	52
86	Sodium zinc phosphate as a corrosion inhibitive pigment. Progress in Organic Coatings, 2014, 77, 1155-1162.	3.9	52
87	Extrusion-based 3D printed biodegradable porous iron. Acta Biomaterialia, 2021, 121, 741-756.	8.3	52
88	Evaluation of the effect of vinyltrimethoxysilane on corrosion resistance and adhesion strength of epoxy coated AA1050. Electrochimica Acta, 2007, 52, 6438-6442.	5.2	51
89	The relationship between spectral and wavelet techniques for noise analysis. Electrochimica Acta, 2016, 202, 277-287.	5.2	50
90	A combined experimental and electronic-structure quantum mechanics approach for studying the kinetics and adsorption characteristics of zinc nitrate hexahydrate corrosion inhibitor on the graphene oxide nanosheets. Applied Surface Science, 2018, 462, 963-979.	6.1	50

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91	An integrated approach in the time, frequency and time-frequency domain for the identification of corrosion using electrochemical noise. Electrochimica Acta, 2016, 222, 627-640.	5.2	49
92	Study of the formation of a protective layer in a defect from lithium-leaching organic coatings. Progress in Organic Coatings, 2016, 99, 80-90.	3.9	49
93	Synthesis and characterization of the fourth generation of zinc phosphate pigment in the presence of benzotriazole. Dyes and Pigments, 2016, 124, 18-26.	3.7	49
94	Zirconium-based conversion film formation on zinc, aluminium and magnesium oxides and their interactions with functionalized molecules. Applied Surface Science, 2017, 423, 817-828.	6.1	48
95	Optimization of potassium zinc phosphate anticorrosion pigment by Taguchi experimental design. Progress in Organic Coatings, 2013, 76, 224-230.	3.9	47
96	Surface modification of Cr2O3 nanoparticles with 3-amino propyl trimethoxy silane (APTMS). Part 1: Studying the mechanical properties of polyurethane/Cr2O3 nanocomposites. Progress in Organic Coatings, 2014, 77, 1663-1673.	3.9	47
97	Corrosion and adhesion study of polyurethane coating on silane pretreated aluminum. Surface and Coatings Technology, 2009, 203, 1677-1681.	4.8	46
98	The effect of interlayer spacing on the inhibitor release capability of layered double hydroxide based nanocontainers. Journal of Cleaner Production, 2020, 251, 119676.	9.3	46
99	Designing a non-hazardous nano-carrier based on graphene oxide@Polyaniline-Praseodymium (III) for fabrication of the Active/Passive anti-corrosion coating. Journal of Hazardous Materials, 2020, 398, 123136.	12.4	46
100	Corrosion behavior of aluminum/silica/polystyrene nanostructured hybrid flakes. Iranian Polymer Journal (English Edition), 2014, 23, 699-706.	2.4	45
101	Effect of inhibition synergism of zinc chloride and 2-mercaptobenzoxzole on protective performance of an ecofriendly silane coating on mild steel. Journal of Industrial and Engineering Chemistry, 2017, 48, 88-98.	5.8	45
102	MIL-88A (Fe) filler with duplicate corrosion inhibitive/barrier effect for epoxy coatings: Electrochemical, molecular simulation, and cathodic delamination studies. Journal of Industrial and Engineering Chemistry, 2021, 97, 200-215.	5.8	45
103	Corrosion Inhibition Performance and Healing Ability of a Hybrid Silane Coating in the Presence of Praseodymium (III) Cations. Journal of the Electrochemical Society, 2018, 165, C777-C786.	2.9	44
104	Screening the anti-corrosion effect of a hybrid pigment based on zinc acetyl acetonate on the corrosion protection performance of an epoxy-ester polymeric coating. Journal of the Taiwan Institute of Chemical Engineers, 2018, 82, 261-272.	5.3	43
105	The influence of a Zr-based conversion treatment on interfacial bonding strength and stability of epoxy coated carbon steel. Progress in Organic Coatings, 2017, 105, 29-36.	3.9	42
106	Epoxy nanocomposite coatings with enhanced dual active/barrier behavior containing graphene-based carbon hollow spheres as corrosion inhibitor nanoreservoirs. Corrosion Science, 2021, 185, 109428.	6.6	41
107	The effect of benzimidazole and zinc acetylacetonate mixture on cathodic disbonding of epoxy coated mild steel. Progress in Organic Coatings, 2009, 66, 137-140.	3.9	40
108	The effect of zinc cation on the anticorrosion behavior of an eco-friendly silane solâ€“gel coating applied on mild steel. Progress in Organic Coatings, 2016, 101, 142-148.	3.9	40

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109	Application of EIS and salt spray tests for investigation of the anticorrosion properties of polyurethane-based nanocomposites containing Cr2O3 nanoparticles modified with 3-amino propyl trimethoxy silane. Progress in Organic Coatings, 2014, 77, 1935-1945.	3.9	39
110	Fabrication of a highly protective silane composite coating with limited water uptake utilizing functionalized carbon nano-tubes. Composites Part B: Engineering, 2019, 175, 107109.	12.0	39
111	Sodium diethyldithiocarbamate as a novel corrosion inhibitor to mitigate corrosion of 2024-T3 aluminum alloy in 3.5Âwt% NaCl solution. Journal of Molecular Liquids, 2020, 307, 112965.	4.9	39
112	The role of micro/nano zeolites doped with zinc cations in the active protection of epoxy ester coating. Applied Surface Science, 2017, 423, 571-583.	6.1	38
113	Urtica dioica extract as a facile green reductant of graphene oxide for UV resistant and corrosion protective polyurethane coating fabrication. Journal of Industrial and Engineering Chemistry, 2019, 78, 125-136.	5.8	38
114	Mercapto functional azole compounds as organic corrosion inhibitors in a polyester-melamine coating. Progress in Organic Coatings, 2010, 68, 259-264.	3.9	37
115	Investigation of corrosion behavior of aluminum flakes coated by polymeric nanolayer: Effect of polymer type. Corrosion Science, 2014, 87, 392-396.	6.6	37
116	The corrosion inhibitive properties of various kinds of potassium zinc phosphate pigments: Solution phase and coating phase studies. Progress in Organic Coatings, 2015, 85, 109-122.	3.9	37
117	Compositional study of a corrosion protective layer formed by leachable lithium salts in a coating defect on AA2024-T3 aluminium alloys. Progress in Organic Coatings, 2018, 119, 65-75.	3.9	37
118	Fabrication of Highly Effective Polyaniline Grafted Carbon Nanotubes To Induce Active Protective Functioning in a Silane Coating. Industrial & Engineering Chemistry Research, 2019, 58, 20309-20322.	3.7	37
119	Graphene oxide nano-sheets loading with praseodymium cations: Adsorption-desorption study, quantum mechanics calculations and dual active-barrier effect for smart coatings fabrication. Journal of Industrial and Engineering Chemistry, 2019, 78, 143-154.	5.8	37
120	The influence of surface modification of lithium zinc phosphate pigment on corrosion inhibition of mild steel and adhesion strength of epoxy coating. Journal of Sol-Gel Science and Technology, 2014, 72, 359-368.	2.4	36
121	An in situ study of zirconium-based conversion treatment on zinc surfaces. Applied Surface Science, 2015, 356, 837-843.	6.1	36
122	The effect of solâ€“gel surface modified silver nanoparticles on the protective properties of the epoxy coating. RSC Advances, 2016, 6, 18996-19006.	3.6	36
123	Versatile protection of exterior coatings by the aid of graphene oxide nano-sheets; comparison with conventional UV absorbers. Progress in Organic Coatings, 2018, 116, 90-101.	3.9	36
124	Study of the impact of sequence of corrosion inhibitor doping in zeolite on the self-healing properties of silane solâ€“gel film. Journal of Industrial and Engineering Chemistry, 2018, 66, 221-230.	5.8	36
125	Electrochemical examining behavior of epoxy coating incorporating zinc-free phosphate-based anticorrosion pigment. Progress in Organic Coatings, 2013, 76, 302-306.	3.9	33
126	High-performance hybrid coatings based on diamond-like carbon and copper for carbon steel protection. Diamond and Related Materials, 2017, 80, 84-92.	3.9	33

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127	Electrochemical Investigations of the Corrosion Protection Properties of an Epoxy-Ester Coating Filled with Cerium Acetyl Acetonate Anticorrosive Pigment. Journal of the Electrochemical Society, 2017, 164, C709-C716.	2.9	33
128	Enhancement of silane coating protective performance by using a polydimethylsiloxane additive. Journal of Industrial and Engineering Chemistry, 2017, 55, 244-252.	5.8	33
129	Synthesis and application of mesoporous carbon nanospheres containing walnut extract for fabrication of active protective epoxy coatings. Progress in Organic Coatings, 2019, 133, 206-219.	3.9	33
130	Development of an ecofriendly silane sol-gel coating with zinc acetylacetonate corrosion inhibitor for active protection of mild steel in sodium chloride solution. Journal of Sol-Gel Science and Technology, 2017, 81, 154-166.	2.4	32
131	Effects of nanoparticulate silver on the corrosion protection performance of polyurethane coatings on mild steel in sodium chloride solution. Progress in Organic Coatings, 2014, 77, 1233-1240.	3.9	30
132	Chemical modification of talc with corrosion inhibitors to enhance the corrosion protective properties of epoxy-ester coating. Progress in Organic Coatings, 2018, 120, 110-122.	3.9	30
133	Hybrid sol-gel coatings applied on anodized AA2024-T3 for active corrosion protection. Surface and Coatings Technology, 2021, 419, 127251.	4.8	30
134	Electrodeposition of mixed chromium metal-carbide-oxide coatings from a trivalent chromium-formate electrolyte without a buffering agent. Electrochimica Acta, 2015, 173, 819-826.	5.2	29
135	Potency of ZnFe2O4 Nanoparticles as Corrosion Inhibitor for Stainless Steel; the Pigment Extract Study. Materials Research, 2017, 20, 1492-1502.	1.3	29
136	The use of odd random phase electrochemical impedance spectroscopy to study lithium-based corrosion inhibition by active protective coatings. Electrochimica Acta, 2018, 278, 363-373.	5.2	29
137	Unique 2-methylimidazole based Inorganic Building Brick nano-particles (NPs) functionalized with 3-aminopropyltriethoxysilane with excellent controlled corrosion inhibitors delivery performance; Experimental coupled with molecular/DFT-D simulations. Journal of the Taiwan Institute of Chemical Engineers, 2020, 117, 209-222.	5.3	27
138	Fabrication of MIL-88A sandwiched in graphene oxide nanocomposites using a green approach to induce active/barrier protective functioning in epoxy coatings. Journal of Cleaner Production, 2021, 321, 128928.	9.3	27
139	Effect of Nanosilica and Boron Carbide on Adhesion Strength of High Temperature Adhesive Based on Phenolic Resin for Graphite Bonding. Industrial & Engineering Chemistry Research, 2014, 53, 11747-11754.	3.7	26
140	Evaluation of cathodic disbondment of epoxy coating containing azole compounds. Journal of Industrial and Engineering Chemistry, 2015, 21, 1167-1173.	5.8	26
141	Steel surface treatment with three different acid solutions and its effect on the protective properties of the subsequent silane coating. Progress in Organic Coatings, 2017, 112, 133-140.	3.9	26
142	The effect of time evolution and timing of the electrochemical data recording of corrosion inhibitor protection of hot-dip galvanized steel. Corrosion Science, 2020, 173, 108780.	6.6	26
143	Synergistic effect of imidazole dicarboxylic acid and Zn2+ simultaneously doped in halloysite nanotubes to improve protection of epoxy ester coating. Progress in Organic Coatings, 2019, 132, 29-40.	3.9	25
144	A novel corrosion inhibitive system comprising Zn-Al LDH and hybrid sol-gel silane nanocomposite coating for AA2024-T3. Journal of Alloys and Compounds, 2022, 909, 164755.	5.5	25

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145	Doping of zinc cations in chemically modified halloysite nanotubes to improve protection function of an epoxy ester coating. Corrosion Science, 2019, 151, 69-80.	6.6	24
146	Zn-Al layered double hydroxide as an inhibitive conversion coating developed on AA2024-T3 by one-step hydrothermal crystallization: Crystal structure evolution and corrosion protection performance. Surface and Coatings Technology, 2021, 409, 126882.	4.8	24
147	In Situ Study of Buried Interfacial Bonding Mechanisms of Carboxylic Polymers on Zn Surfaces. Journal of Physical Chemistry C, 2013, 117, 3374-3382.	3.1	23
148	Fabrication of silane coating with improved protection performance using Mentha longifolia extract. Journal of the Taiwan Institute of Chemical Engineers, 2018, 88, 261-276.	5.3	23
149	Designing a zinc-encapsulated Feldspar as a unique rock-forming tectosilicate nanocontainer in the epoxy coating; improving the robust barrier and self-healing anti-corrosion properties. Construction and Building Materials, 2020, 243, 118215.	7.2	23
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151	Optimization of intrinsic self-healing silicone coatings by benzotriazole loaded mesoporous silica. Surface and Coatings Technology, 2021, 421, 127388.	4.8	22
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