Xiaolu Pang

List of Publications by Year
in descending order

123	3,993	94433	144013
papers	citations	37 h-index	57 g-index

125	125	125	3458
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Formation of high-density stacking faults in ceramic films induced by Ti transition layer. Scripta Materialia, 2022, 211, 114496.	5.2	11
2	High stress corrosion cracking resistance of in-situ nanoparticle strengthened steel. Corrosion Communications, 2022, 5, 14-24.	6.0	6
3	Review of metal carbide nanoprecipitate effects on hydrogen embrittlement of high strength martensitic steel. Anti-Corrosion Methods and Materials, 2022, 69, 409-416.	1.5	7
4	Hydrogen trapping and hydrogen embrittlement in 15-5PH stainless steel. Corrosion Science, 2022, 205, 110416.	6.6	7
5	High-throughput technique for stress corrosion cracking susceptibility measurements based on film-induced stress. Vacuum, 2022, 203, 111275.	3.5	2
6	Atomic-scale insights on hydrogen trapping and exclusion at incoherent interfaces of nanoprecipitates in martensitic steels. Nature Communications, 2022, 13, .	12.8	27
7	Selection of interfacial metals for Si3N4 ceramics by the density functional theory. Chemical Physics Letters, 2021, 763, 138189.	2.6	2
8	Synergistic effect of Cu and Cr on pitting behavior induced by MnS inclusions in low alloy steels. Journal of Alloys and Compounds, 2021, 864, 158133.	5.5	10
9	Deformation Mechanisms of NiP/Ni Composite Coatings on Ductile Substrates. Coatings, 2021, 11, 834.	2.6	0
10	Effects of orientation on microstructure and mechanical properties of TiN/AlN superlattice films. Scripta Materialia, 2021, 201, 113951.	5.2	17
11	Stress-sensitive fatigue crack initiation mechanisms of coated titanium alloy. Acta Materialia, 2021, 217, 117179.	7.9	24
12	Nitrogen effects on structure, mechanical and thermal fracture properties of CrN films. Ceramics International, 2021, 47, 30729-30740.	4.8	9
13	Study of the stability of Î±-Fe/MnS interfaces from first principles and experiment. Applied Surface Science, 2020, 501, 144017.	6.1	26
14	Atomic-scale investigation of deep hydrogen trapping in NbC/Î±-Fe semi-coherent interfaces. Acta Materialia, 2020, 200, 686-698.	7.9	125
15	Mechanical properties and phases evolution in T91 steel during long-term high-temperature exposure. Engineering Failure Analysis, 2020, 111, 104451.	4.0	21
16	Thermodynamics Analysis of Multiple Microelementsâ€™ Coupling Behavior in High Fatigue Resistance 50CrVA Spring Steel with Nanoparticles. Materials, 2019, 12, 2952.	2.9	5
17	Discontinuous cracking of TiN films on a steel substrate induced by an adhesive interlayer. Philosophical Magazine Letters, 2019, 99, 199-207.	1.2	4
18	Microstructure evolution of in-situ nanoparticles and its comprehensive effect on high strength steel. Journal of Materials Science and Technology, 2019, 35, 1940-1950.	10.7	40

#	Article	IF	Citations
19	Effect of surface roughness on the performance of thioureido imidozaline inhibitor in CO2-saturated brine. Corrosion Science, 2019, 157, 189-204.	6.6	22
20	One-Step in Situ Synthesis of Reduced Graphene Oxide/Znâ€“Al Layered Double Hydroxide Film for Enhanced Corrosion Protection of Magnesium Alloys. Langmuir, 2019, 35, 6312-6320.	3.5	63
21	Brittle coating effects on fatigue cracks behavior in Ti alloys. International Journal of Fatigue, 2019, 125, 432-439.	5.7	40
22	Tribo-corrosion and Albumin Attachment of Nitrogen Ion-Implanted CoCrMo Alloy During Friction Onset. Journal of Materials Engineering and Performance, 2019, 28, 363-371.	2.5	5
23	Interaction between Cu and Cr coadsorption on MnS inclusions in low alloy steels. Applied Surface Science, 2019, 471, 425-434.	6.1	15
24	Substrate slip steps promote cracking and buckling of thin brittle film. Scripta Materialia, 2019, 163, 82-85.	5.2	8
25	Localized CO2 corrosion of carbon steel with different microstructures in brine solutions with an imidazoline-based inhibitor. Applied Surface Science, 2018, 442, 446-460.	6.1	55
26	First principles calculations study of crystallographic orientation effects on SiC/Ti and SiC/Cr interfaces. Microelectronics Reliability, 2018, 83, 119-126.	1.7	10
27	Cleavage cracking of ductile-metal substrates induced by brittle coating fracture. Acta Materialia, 2018, 152, 77-85.	7.9	73
28	In-situ stress gradient evolution and texture-dependent fracture of brittle ceramic thin films under external load. Ceramics International, 2018, 44, 8176-8183.	4.8	11
29	Thermal-induced blister cracking behavior of annealed sandwich-structured TiN/CrAlN films. Ceramics International, 2018, 44, 5874-5879.	4.8	4
30	Residual stress control in CrAlN coatings deposited on Ti alloys. Ceramics International, 2018, 44, 4653-4659.	4.8	18
31	Thermodynamic energy variation diagram to speculate preferred growth orientation of magnetron sputtered PbSe thin films on monocrystalline silicon substrates. Applied Surface Science, 2018, 452, 1-10.	6.1	14
32	Corrosion of low alloy steel containing 0.5% chromium in supercritical CO2-saturated brine and water-saturated supercritical CO2 environments. Applied Surface Science, 2018, 440, 524-534.	6.1	40
33	Effect of flow rate on localized corrosion of X70 steel in supercritical CO2 environments. Corrosion Science, 2018, 136, 339-351.	6.6	55
34	First principles calculations of interfacial properties and electronic structure of the AlN(0â€¯0â€¯0â€¯1)/Ti(0â€¯0â€¯0â€¯1) interface. Chemical Physics Letters, 2018, 713, 153-159.	2.6	15
35	Thermodynamic Analysis of Ti3O5Nanoparticles Formed in Melt and Their Effects on Ferritic Steel Microstructure. Materials, 2018, 11, 1343.	2.9	4
36	Comparative study of Ti and Cr adhesion to the AlN ceramic: Experiments and calculations. Applied Surface Science, 2018, 457, 856-862.	6.1	19

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37	Residual stress and microstructure effects on mechanical, tribological and electrical properties of TiN coatings on 304 stainless steel. Ceramics International, 2018, 44, 15851-15858.	4.8	45
38	Design and fabrication of enhanced corrosion resistance Zn-Al layered double hydroxides films based anion-exchange mechanism on magnesium alloys. Applied Surface Science, 2017, 404, 246-253.	6.1	95
39	Inhibition of the corrosion of X70 and Q235 steel in CO 2 -saturated brine by imidazoline-based inhibitor. Journal of Electroanalytical Chemistry, 2017, 791, 83-94.	3.8	53
40	Film thickness effect on texture and residual stress sign transition in sputtered TiN thin films. Ceramics International, 2017, 43, 11992-11997.	4.8	69
41	Effect of exposure angle on the corrosion behavior of X70 steel under supercritical CO 2 and gaseous CO 2 environments. Corrosion Science, 2017, 121, 57-71.	6.6	28
42	Failure analysis of high nickel alloy steel seal ring used in turbomachinery. Engineering Failure Analysis, 2017, 80, 49-56.	4.0	7
43	High temperature brittle film adhesion measured from annealing-induced circular blisters. Acta Materialia, 2017, 138, 1-9.	7.9	29
44	Effects of anions on corrosion behaviour of carbon steel in simulated groundwater in China. Corrosion Engineering Science and Technology, 2017, 52, 84-89.	1.4	3
45	Improved thermoelectric performance of BiCuSeO by Ag substitution at Cu site. Journal of Alloys and Compounds, 2017, 691, 572-577.	5.5	38
46	Applications and Thermodynamic Analysis of Equilibrium Solution for Secondary Phases in Tiâ€“Nâ€“C Gear Steel System with Nano-Particles. Metals, 2017, 7, 110.	2.3	5
47	Pronounced effect of ZnTe nanoinclusions on thermoelectric properties of Cu2â^'x Se chalcogenides. Science China Materials, 2016, 59, 135-143.	6.3	17
48	Crevice corrosion of copper for radioactive waste packaging material in simulated groundwater. Corrosion Engineering Science and Technology, 2016, 51, 11-17.	1.4	12
49	Annealing temperature effects on optical and photoelectric properties of sputtered indium-doped PbSe thin films. Journal of Materials Science: Materials in Electronics, 2016, 27, 1670-1678.	2.2	6
50	Corrosion of low alloy steel and stainless steel in supercritical CO 2 /H 2 O/H 2 S systems. Corrosion Science, 2016, 111, 637-648.	6.6	78
51	Interface and Strain Energy Revolution Texture Map To Predict Structure and Optical Properties of Sputtered PbSe Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 625-633.	8.0	29
52	Effect of small amount of H 2 S on the corrosion behavior of carbon steel in the dynamic supercritical CO 2 environments. Corrosion Science, 2016, 103, 132-144.	6.6	108
53	Effects of substrate bias voltage on mechanical properties and tribological behaviors of RF sputtered multilayer TiN/CrAlN films. Journal of Alloys and Compounds, 2016, 665, 210-217.	5.5	30
54	Effects of alloyed Cr and Cu on the corrosion behavior of low-alloy steel in a simulated groundwater solution. Corrosion Science, 2016, 102, 114-124.	6.6	54

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55	Cd-doping a facile approach for better thermoelectric transport properties of BiCuSeO oxyselenides. RSC Advances, 2016, 6, 33789-33797.	3.6	48
56	Enhanced thermoelectric efficiency of Cu2â˜Seâ€“Cu2S composite by incorporating Cu2S nanoparticles. Ceramics International, 2016, 42, 8395-8401.	4.8	30
57	Externally applied stress sign and film elastic properties effects on brittle film fracture. Philosophical Magazine, 2016, 96, 447-458.	1.6	6
58	Fabrication of a Superhydrophobic Film with Self-Cleaning Property on Magnesium Alloy and its Corrosion Resistance Properties. , 2016, , 279-283.		0
59	Development and application of metalÂmaterials in terms of vascular stents. Bio-Medical Materials and Engineering, 2015, 25, 435-441.	0.6	5
60	Brittle film-induced cracking of ductile substrates. Acta Materialia, 2015, 99, 273-280.	7.9	81
61	Electrochemical Oxidation of Methanol on Pt-SnO_x/C Catalysts Characterized by Electrochemistry Methods. Journal of the Electrochemical Society, 2015, 162, F1540-F1548.	2.9	17
62	Residual Stress and Surface Energy of Sputtered TiN Films. Journal of Materials Engineering and Performance, 2015, 24, 1185-1191.	2.5	39
63	Insitu grown superhydrophobic Znâ€“Al layered double hydroxides films on magnesium alloy to improve corrosion properties. Applied Surface Science, 2015, 337, 172-177.	6.1	125
64	Surface carbon chemical states of ion implanted AISI 440C martensitic stainless steel. Journal of Iron and Steel Research International, 2015, 22, 513-518.	2.8	3
65	Corrosion behaviors of steels under supercritical CO2 conditions. Corrosion Reviews, 2015, 33, 151-174.	2.0	24
66	Electrical conductivity and wear behavior of bi-continuous Cr3C2â€“Cu composites. Ceramics International, 2015, 41, 11075-11079.	4.8	11
67	Characterization of corrosion products formed on different surfaces of steel exposed to simulated groundwater solution. Applied Surface Science, 2015, 345, 10-17.	6.1	24
68	CoCrMo alloy for orthopedic implant application enhanced corrosion and tribocorrosion properties by nitrogen ion implantation. Applied Surface Science, 2015, 347, 23-34.	6.1	44
69	The behavior of pre-corrosion effect on the performance of imidazoline-based inhibitor in 3 wt.% NaCl solution saturated with CO 2. Applied Surface Science, 2015, 356, 63-72.	6.1	64
70	Structure and composition effects on electrical and optical properties of sputtered PbSe thin films. Thin Solid Films, 2015, 592, 59-68.	1.8	36
71	The Effect of Exposure Angle on the Corrosion Behavior of Low-Carbon Microalloyed Steel Under CO2Conditions. Corrosion, 2015, 71, 343-351.	1.1	3
72	Thickness effects on optical and photoelectric properties of PbSeTeO quaternary thin films prepared by magnetron sputtering. Journal of Materials Science: Materials in Electronics, 2015, 26, 7873-7881.	2.2	8

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73	Formation mechanism and protective property of corrosion product scale on X70 steel under supercritical CO 2 environment. Corrosion Science, 2015, 100, 404-420.	6.6	101
74	Study on the growth mechanism and optical properties of sputtered lead selenide thin films. Applied Surface Science, 2015, 356, 978-985.	6.1	30
75	Thickness effect on the band gap of magnetron sputtered Pb45Se45O10 thin films on Si. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 67, 152-158.	2.7	11
76	Mechanical properties of a bi-continuous Cuâ€“Cr3C2 composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 623, 4-9.	5.6	12
77	Failure Analysis of Differential Pressure Transmitter Impulse Pipe in High Sulfur Purification Device. Applied Mechanics and Materials, 2014, 668-669, 102-106.	0.2	0
78	Investigation of corrosion behaviours of high level waste container materials in simulated groundwater in China. Corrosion Engineering Science and Technology, 2014, 49, 480-484.	1.4	5
79	Porosity dependence of elastic modulus of porous Cr3C2 ceramics. Ceramics International, 2014, 40, 191-198.	4.8	35
80	Temperature, moisture and mode-mixity effects on copper leadframe/EMC interfacial fracture toughness. International Journal of Fracture, 2014, 185, 115-127.	2.2	41
81	Adhesion of Sputtered Nickel Films on Polycarbonate Substrates. Journal of Materials Engineering and Performance, 2014, 23, 786-790.	2.5	10
82	TiN-Coating Effects on Stainless Steel Tribological Behavior Under Dry and Lubricated Conditions. Journal of Materials Engineering and Performance, 2014, 23, 1263-1269.	2.5	13
83	Corrosion resistance and friction of sintered NdFeB coated with Ti/TiN multilayers. Thin Solid Films, 2014, 550, 428-434.	1.8	24
84	Si photoanode protected by a metal modified ITO layer with ultrathin NiOx for solar water oxidation. Physical Chemistry Chemical Physics, 2014, 16, 4612-4625.	2.8	55
85	Water molecules effect on pure Ti passive film structure in methanol solution. Applied Surface Science, 2014, 303, 282-289.	6.1	19
86	The effect of ion implantation on tribology and hot rolling contact fatigue of Cr4Mo4Ni4V bearing steel. Applied Surface Science, 2014, 305, 93-100.	6.1	31
87	Passive film-induced stress and mechanical properties of Î±-Ti in methanol solution. Corrosion Science, 2014, 78, 287-292.	6.6	27
88	Corrosion behavior of steel with different microstructures under various elastic loading conditions. Corrosion Science, 2013, 75, 293-299.	6.6	35
89	Fracture Toughness and Adhesion of Transparent Al:ZnO Films Deposited on Glass Substrates. Journal of Materials Engineering and Performance, 2013, 22, 3161-3167.	2.5	7
90	Corrosion behavior of each phase in low carbon microalloyed ferriteâ€“bainite dual-phase steel: Experiments and modeling. Corrosion Science, 2013, 75, 67-77.	6.6	44

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91	Microstructure, residual stress, and fracture of sputtered TiN films. Surface and Coatings Technology, 2013, 224, 120-125.	4.8	100
92	Fast deposition of diamond-like carbon films by radio frequency hollow cathode method. Thin Solid Films, 2013, 534, 226-230.	1.8	16
93	Metal Oxide Composite Enabled Nanotextured Si Photoanode for Efficient Solar Driven Water Oxidation. Nano Letters, 2013, 13, 2064-2072.	9.1	92
94	Discussion of the CO2 corrosion mechanism between low partial pressure and supercritical condition. Corrosion Science, 2012, 59, 186-197.	6.6	160
95	A novel observation of the interaction between the macroelastic stress and electrochemical corrosion of low carbon steel in 3.5wt% NaCl solution. Electrochimica Acta, 2012, 85, 283-294.	5.2	44
96	Failure analysis of the oil transport spiral welded pipe. Engineering Failure Analysis, 2012, 25, 169-174.	4.0	15
97	Nickel oxide functionalized silicon for efficient photo-oxidation of water. Energy and Environmental Science, 2012, 5, 7872.	30.8	167
98	Influence of temperature field on the microstructure of low carbon microalloyed ferriteâ€“bainite dual-phase steel during heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 536, 136-142.	5.6	19
99	The relationship between fracture toughness of CO2 corrosion scale and corrosion rate of X65 pipeline steel under supercritical CO2 condition. International Journal of Greenhouse Gas Control, 2011, 5, 1643-1650.	4.6	41
100	The growth mechanism of CO2 corrosion product films. Corrosion Science, 2011, 53, 557-568.	6.6	164
101	Discontinuous surface cracks during stress corrosion cracking of stainless steel single crystal. Corrosion Science, 2011, 53, 3509-3514.	6.6	35
102	Surface Potential Distribution in an Indentationâ€•Preâ€Cracked <scp>BaTiO₃</scp> Single Crystal. Journal of the American Ceramic Society, 2011, 94, 4299-4304.	3.8	5
103	Room temperature ferromagnetism in sputtered Zn1â^'xCrxO thin films. Materials Letters, 2011, 65, 2728-2730.	2.6	9
104	Investigation on hydrogen induced cracking behaviors of Ni-base alloy. International Journal of Hydrogen Energy, 2011, 36, 5729-5738.	7.1	23
105	AlTiN layer effect on mechanical properties of Ti-doped diamond-like carbon composite coatings. Thin Solid Films, 2011, 519, 5353-5357.	1.8	14
106	Annealing effects on microstructure and mechanical properties of sputtered multilayer Cr(1â^'x)AlxN films. Thin Solid Films, 2011, 519, 5831-5837.	1.8	14
107	Annealing Temperature Effect on the Microstructure and Adhesion of SiC Films Produced by MF Magnetron Sputtering. Advanced Materials Research, 2011, 287-290, 2423-2428.	0.3	0
108	Characterization of microstructure evolution after severe plastic deformation of pure copper with continuous columnar crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4750-4757.	5.6	32

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109	Substrate Roughness Effects on Chromium Oxide Coating Adhesion and Wear Resistance. Advanced Materials Research, 2010, 97-101, 1261-1264.	0.3	0
110	Microstructure and mechanical properties of Ti/AlTiN/Ti-diamondlike carbon composite coatings on steel. Journal of Materials Research, 2010, 25, 2159-2165.	2.6	3
111	Corrosion behaviour of low-carbon bainitic steel under a constant elastic load. Corrosion Science, 2010, 52, 3428-3434.	6.6	45
112	Investigation of microstructure and mechanical properties of multi-layer Cr/Cr2O3 coatings. Thin Solid Films, 2009, 517, 1922-1927.	1.8	44
113	Characterization of the mechanical properties and failure modes of hard coatings deposited by RF magnetron sputtering. Surface and Coatings Technology, 2008, 202, 3354-3359.	4.8	22
114	Annealing effects on microstructure and mechanical properties of chromium oxide coatings. Thin Solid Films, 2008, 516, 4685-4689.	1.8	72
115	Mechanical properties of CO2 corrosion product scales and their relationship to corrosion rates. Corrosion Science, 2008, 50, 2796-2803.	6.6	115
116	Mechanical Properties of Evaporated Gold Films. Hard Substrate Effect Correction. Materials Research Society Symposia Proceedings, 2008, 1086, 1.	0.1	1
117	Moisture Effects on Gold Nanowear. Materials Research Society Symposia Proceedings, 2008, 1085, 51001.	0.1	3
118	Microstructure and mechanical properties of chromium oxide coatings. Journal of Materials Research, 2007, 22, 3531-3537.	2.6	54
119	Analysis and Measurement of Forces in an Electrowetting-Driven Oscillator. Materials Research Society Symposia Proceedings, 2007, 1052, 1.	0.1	1
120	Pattern Formation During Nanowear of Gold Films. Materials Research Society Symposia Proceedings, 2007, 1059, 1.	0.1	0
121	Interfacial Microstructure of Chromium Oxide Coatings. Advanced Engineering Materials, 2007, 9, 594-599.	3.5	56
122	Role of deposition parameters on microstructure and mechanical properties of chromium oxide coatings. Surface and Coatings Technology, 2007, 202, 58-62.	4.8	37
123	Achieving Low Yield Ratio in Highâ€Strength Steel by Tuning Multiple Microstructures. Steel Research International, 0, , 2100415.	1.8	1