

# Yu Yan

## List of Publications by Year in descending order

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123  
papers

3,403  
citations

126907

33  
h-index

168389

53  
g-index

125  
all docs

125  
docs citations

125  
times ranked

4290  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of a two-step annealing process on deformation-induced transformation mechanisms in cold-rolled medium manganese steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 831, 142244.	5.6	12
2	Annealing treatment induced $\hat{\mu}$ martensite formation and evolution in TWIP steel. <i>Materials Letters</i> , 2022, 308, 131110.	2.6	2
3	Preparation, mechanical properties, fatigue and tribological behavior of double crosslinked high strength hydrogel. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 126, 105009.	3.1	11
4	Crevice corrosion behaviors of CoCrMo alloy and stainless steel 316L artificial joint materials in physiological saline. <i>Corrosion Science</i> , 2022, 197, 110075.	6.6	14
5	Repassivation and dry sliding wear behavior of equiatomic medium entropy TiZr (Hf, Ta, Nb) alloys. <i>Materials Letters</i> , 2022, 312, 131643.	2.6	6
6	Role of gradient nano-structured surface in collapsed pitting corrosion on AISI 316L stainless steel during tribocorrosion. <i>Corrosion Science</i> , 2022, 197, 110043.	6.6	16
7	Corrosion and tribocorrosion behavior of equiatomic refractory medium entropy TiZr(Hf, Ta, Nb) alloys in chloride solutions. <i>Corrosion Science</i> , 2022, 199, 110166.	6.6	37
8	Effect of Cationic/Anionic Diffusion Dominated Passive Film Growth on Tribocorrosion. <i>Metals</i> , 2022, 12, 798.	2.3	1
9	Effect of Grain Orientation on Hydrogen Embrittlement Behavior of Interstitial-Free Steel. <i>Metals</i> , 2022, 12, 981.	2.3	2
10	Effect of surface oxidation on wear and tribocorrosion behavior of forged and selective laser melting-based TC4 alloys. <i>Tribology International</i> , 2022, 174, 107780.	5.9	9
11	Insight into the corrosion behaviour and degradation mechanism of pure zinc in simulated body fluid. <i>Corrosion Science</i> , 2021, 178, 109071.	6.6	52
12	A first-principles and machine learning combined method to investigate the interfacial friction between corrugated graphene. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2021, 29, 035011.	2.0	2
13	Regulating solute partitioning utilized to decorate grain boundary for improving corrosion resistance in a model Al-Cu-Mg alloy. <i>Corrosion Science</i> , 2021, 181, 109219.	6.6	20
14	Early electrochemical characteristics and corrosion behaviors of pure zinc in simulated body fluid. <i>Journal of Electroanalytical Chemistry</i> , 2021, 886, 115145.	3.8	13
15	Effect of Alloying Elements on the Stacking Fault Energy and Ductility in Mg <sub>2</sub> Si Intermetallic Compounds. <i>ACS Omega</i> , 2021, 6, 20254-20263.	3.5	1
16	Tribocorrosion investigation of 316L stainless steel: the synergistic effect between chloride ion and sulfate ion. <i>Materials Research Express</i> , 2021, 8, 086501.	1.6	15
17	Influence of micro-nano surface texture on the hydrophobicity and corrosion resistance of a Ti <sub>6</sub> Al <sub>4</sub> V alloy surface. <i>Anti-Corrosion Methods and Materials</i> , 2021, 68, 373-379.	1.5	6
18	Suppression mechanism of initial pitting corrosion of pure Zn by Li alloying. <i>Corrosion Science</i> , 2021, 189, 109564.	6.6	16

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19	Giant tunneling magnetoresistance induced by bias voltage in spin-filter van der Waals magnetic tunnel junctions with an interlayer antiferromagnetic semiconductor barrier. <i>Physical Review B</i> , 2021, 104, .	3.2	3
20	Ferromagnetic barrier induced large enhancement of tunneling magnetoresistance in van der Waals perpendicular magnetic tunnel junctions. <i>Nanoscale</i> , 2021, 13, 19993-20001.	5.6	5
21	In vitro degradation behavior of novel Zn <sup>2+</sup> /Cu <sup>2+</sup> /Li alloys: Roles of alloy composition and rolling processing. <i>Materials and Design</i> , 2021, 212, 110288.	7.0	18
22	Microstructure, wear resistance, and corrosion performance of Ti35Zr28Nb alloy fabricated by powder metallurgy for orthopedic applications. <i>Journal of Materials Science and Technology</i> , 2020, 41, 191-198.	10.7	51
23	Interface-induced perpendicular magnetic anisotropy in Co <sub>2</sub> /FeAl/NiFe <sub>2</sub> O <sub>4</sub> superlattice: first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 716-723.	2.8	13
24	Variability of sea ice area in the Bohai Sea from 1958 to 2015. <i>Science of the Total Environment</i> , 2020, 709, 136164.	8.0	18
25	The effect of hydrogen concentration on the fracture surface of medium Mn steels. <i>Engineering Failure Analysis</i> , 2020, 108, 104263.	4.0	7
26	Four distinct resistive states in van der Waals full magnetic 1T-VSe <sub>2</sub> /CrI <sub>3</sub> /1T-VSe <sub>2</sub> tunnel junction. <i>Applied Surface Science</i> , 2020, 505, 144648.	6.1	23
27	Effect of hot/warm rolling on the microstructures and mechanical properties of medium-Mn steels. <i>Materials Characterization</i> , 2020, 170, 110682.	4.4	17
28	Ultrahigh tunneling magnetoresistance in van der Waals and lateral magnetic tunnel junctions formed by intrinsic ferromagnets Li <sub>0.5</sub> CrI <sub>3</sub> and CrI <sub>3</sub> . <i>Applied Physics Letters</i> , 2020, 117, 022412.	3.3	17
29	Enhanced magnetic anisotropy and Curie temperature of the NiI <sub>2</sub> monolayer by applying strain: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 26917-26922.	2.8	21
30	Hydrostatic pressure effect on double layer capacity of iron. <i>Journal of Electroanalytical Chemistry</i> , 2020, 871, 114306.	3.8	10
31	A first-principles study on the hydrogen trap characteristics of coherent nano-precipitates in $\delta$ -Fe. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27941-27949.	7.1	39
32	Lifecycle of cobalt-based alloy for artificial joints: From bulk material to nanoparticles and ions due to bio-tribocorrosion. <i>Journal of Materials Science and Technology</i> , 2020, 46, 98-106.	10.7	15
33	Improvement of valley splitting and valley injection efficiency for graphene/ferromagnet heterostructure*. <i>Chinese Physics B</i> , 2020, 29, 077304.	1.4	4
34	Electrically Tunable Wafer-Sized Three-Dimensional Topological Insulator Thin Films Grown by Magnetron Sputtering*. <i>Chinese Physics Letters</i> , 2020, 37, 057301.	3.3	9
35	Effect of deformed subsurface on the corrosion resistance of biomedical CoCrMo alloy in simulated physiological solution. <i>Journal of Materials Science</i> , 2020, 55, 13351-13362.	3.7	5
36	Effect of Relative Humidity on Mechanical Degradation of Medium Mn Steels. <i>Materials</i> , 2020, 13, 1304.	2.9	1

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37	Prediction of Novel 2D Intrinsic Ferromagnetic Materials with High Curie Temperature and Large Perpendicular Magnetic Anisotropy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 7956-7964.	3.1	42
38	Interlayer coupling in intrinsically magnetic bilayer ScO <sub>2</sub> and NbN <sub>2</sub> . <i>Applied Physics Letters</i> , 2020, 116, .	3.3	2
39	Effect of surface energy on protein adsorption behaviours of treated CoCrMo alloy surfaces. <i>Applied Surface Science</i> , 2020, 520, 146354.	6.1	15
40	Effects of substrate and tip characteristics on the surface friction of fluorinated graphene. <i>RSC Advances</i> , 2020, 10, 10888-10896.	3.6	2
41	Role of subgrain stripe on the exfoliation corrosion of Al-4.6Mg-3.1Zn (wt.%) alloy. <i>Corrosion Science</i> , 2020, 169, 108622.	6.6	7
42	Effect of heat treatment on the microstructures and hardness of selective laser melted Rene88DT superalloy. <i>International Journal of Computational Materials Science and Surface Engineering</i> , 2020, 9, 304.	0.2	0
43	Electron Correlations Engineer Catalytic Activity of Pyrochlore Iridates for Acidic Water Oxidation. <i>Advanced Materials</i> , 2019, 31, e1805104.	21.0	63
44	In <sup>+</sup> ...Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15228-15234.	13.8	27
45	In <sup>+</sup> ...Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. <i>Angewandte Chemie</i> , 2019, 131, 15372-15378.	2.0	5
46	Novel porous Ti <sub>35</sub> Zr <sub>28</sub> Nb scaffolds fabricated by powder metallurgy with excellent osteointegration ability for bone-tissue engineering applications. <i>Materials Science and Engineering C</i> , 2019, 105, 110015.	7.3	44
47	Strain-tunable electric structure and magnetic anisotropy in monolayer CrSi. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 20892-20900.	2.8	25
48	Stabilizing the Fermi Level of Cr-Doped Magnetic Topological Insulators by Al Passivation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 3823-3828.	3.1	4
49	Atomic modeling for the initial stage of chromium passivation. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2019, 26, 732-739.	4.9	8
50	Strain controlling transport properties of heterostructure composed of monolayer CrI <sub>3</sub> . <i>Applied Physics Letters</i> , 2019, 114, .	3.3	31
51	Strain-induced N <sup>+</sup> N bonding and magnetic changes in monolayer intrinsic ferromagnetic TmN <sub>2</sub> (Tm <sup>+</sup> =Tc and Nb). <i>Journal of Physics Condensed Matter</i> , 2019, 31, 335801.	1.8	6
52	Monitoring the Characteristics of the Bohai Sea Ice Using High-Resolution Geostationary Ocean Color Imager (GOCI) Data. <i>Sustainability</i> , 2019, 11, 777.	3.2	22
53	Preservation of the frictional properties of h-BN under chemical modification in the presence of a commensurate Ni(1 <sup>+</sup> 1 <sup>+</sup> ) substrate. <i>Computational Materials Science</i> , 2019, 165, 82-87.	3.0	2
54	The in situ observation of modelled sea ice drift characteristics in the Bohai Sea. <i>Acta Oceanologica Sinica</i> , 2019, 38, 17-25.	1.0	10

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55	Topological node line semimetal state in two-dimensional tetragonal allotrope of Ge and Sn. <i>New Journal of Physics</i> , 2019, 21, 033005.	2.9	35
56	Oxygen Evolution Reaction: Electron Correlations Engineer Catalytic Activity of Pyrochlore Iridates for Acidic Water Oxidation ( <i>Adv. Mater.</i> 6/2019). <i>Advanced Materials</i> , 2019, 31, 1970042.	21.0	72
57	Frontispiz: Inâ€¦Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. <i>Angewandte Chemie</i> , 2019, 131, .	2.0	0
58	Frontispiece: Inâ€¦Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. <i>Angewandte Chemie - International Edition</i> , 2019, 58, .	13.8	0
59	The Influence of Microstructure on the Mechanical Properties and Fracture Behavior of Medium Mn Steels at Different Strain Rates. <i>Materials</i> , 2019, 12, 4228.	2.9	7
60	Effects of stirring action during friction on electrode processes of AISI 304 stainless steel in sulphuric acid. <i>Electrochimica Acta</i> , 2019, 298, 756-769.	5.2	7
61	A Double-Nanophase Intragranular-Oxide-Strengthened Iron Alloy with High Strength and Remarkable Ductility. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 1103-1108.	2.2	3
62	Initial formation of corrosion products on pure zinc in saline solution. <i>Bioactive Materials</i> , 2019, 4, 87-96.	15.6	98
63	Nonmetallic Atoms Induced Magnetic Anisotropy in Monolayer Chromium Trihalides. <i>Journal of Physical Chemistry C</i> , 2019, 123, 691-697.	3.1	33
64	Enhance the fluorination activity of graphene via the interfacial interaction from Ni(1â€¦1) substrate. <i>Computational Materials Science</i> , 2018, 147, 28-33.	3.0	7
65	Origin of the moirÃ© superlattice scale lateral force modulation of graphene on a transition metal substrate. <i>Nanoscale</i> , 2018, 10, 10576-10583.	5.6	14
66	Tune the chemical activity of graphene via the transition metal substrate. <i>RSC Advances</i> , 2018, 8, 11807-11812.	3.6	4
67	Large magnetic anisotropy and its strain modulation in two-dimensional intrinsic ferromagnetic monolayer RuO <sub>2</sub> and OsO <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 28162-28168.	2.8	26
68	A Lasagna-Inspired Nanoscale ZnO Anode Design for High-Energy Rechargeable Aqueous Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 6345-6351.	5.1	46
69	Sealing ZnO nanorods for deeply rechargeable high-energy aqueous battery anodes. <i>Nano Energy</i> , 2018, 53, 666-674.	16.0	112
70	Initial formation of corrosion products on pure zinc in simulated body fluid. <i>Journal of Materials Science and Technology</i> , 2018, 34, 2271-2282.	10.7	79
71	Electrical and structural engineering of cobalt selenide nanosheets by Mn modulation for efficient oxygen evolution. <i>Applied Catalysis B: Environmental</i> , 2018, 236, 569-575.	20.2	122
72	Graphene layer effect on protecting the refined surface of transition metal substrate Re(Oâ€¦Oâ€¦1): A first-principles study. <i>Applied Surface Science</i> , 2018, 462, 502-507.	6.1	1

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73	Release of metal ions from nano CoCrMo wear debris generated from tribo-corrosion processes in artificial hip implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 68, 124-133.	3.1	36
74	The role of hard phase carbides in tribocorrosion processes for a Co-based biomedical alloy. <i>Tribology International</i> , 2017, 113, 370-376.	5.9	15
75	Protein adsorption on implant metals with various deformed surfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 156, 62-70.	5.0	38
76	Hygroscopic behavior of water-soluble matter in marine aerosols over the East China Sea. <i>Science of the Total Environment</i> , 2017, 578, 307-316.	8.0	14
77	Engineering the Electrical Conductivity of Lamellar Silver-Doped Cobalt(II) Selenide Nanobelts for Enhanced Oxygen Evolution. <i>Angewandte Chemie</i> , 2017, 129, 334-338.	2.0	38
78	Engineering the Electrical Conductivity of Lamellar Silver-Doped Cobalt(II) Selenide Nanobelts for Enhanced Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 328-332.	13.8	172
79	Effect of electrochemical corrosion on the subsurface microstructure evolution of a CoCrMo alloy in albumin containing environment. <i>Applied Surface Science</i> , 2017, 406, 319-329.	6.1	22
80	Adsorption of bovine serum albumin and nanocrystallines on biomedical alloys. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2017, 6, 12-19.	0.9	0
81	Gold atom-decorated CoSe <sub>2</sub> nanobelts with engineered active sites for enhanced oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20202-20207.	10.3	57
82	Influence of continental organic aerosols to the marine atmosphere over the East China Sea: Insights from lipids, PAHs and phthalates. <i>Science of the Total Environment</i> , 2017, 607-608, 339-350.	8.0	59
83	Large magnetic anisotropy and strain induced enhancement of magnetic anisotropy in monolayer TaTe <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24341-24347.	2.8	48
84	Multidecadal anomalies of Bohai Sea ice cover and potential climate driving factors during 1988-2015. <i>Environmental Research Letters</i> , 2017, 12, 094014.	5.2	14
85	Characteristics of the sea ice reflectance spectrum polluted by oil spills based on field experiments in the Bohai Sea. <i>Acta Oceanologica Sinica</i> , 2017, 36, 73-79.	1.0	7
86	Study of the tribocorrosion behaviors of albumin on a cobalt-based alloy using scanning Kelvin probe force microscopy and atomic force microscopy. <i>Electrochemistry Communications</i> , 2016, 64, 61-64.	4.7	18
87	Effect of tribology processes on adsorption of albumin. <i>Surface Topography: Metrology and Properties</i> , 2016, 4, 014007.	1.6	3
88	Effect of proteins on the surface microstructure evolution of a CoCrMo alloy in bio-tribocorrosion processes. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 145, 176-184.	5.0	34
89	Study of wear-corrosion resistance of Co-based biomaterial. <i>Emerging Materials Research</i> , 2016, 5, 194-200.	0.7	4
90	Layer thickness and sequence effects on resonant magnetoelectric coupling in Ni/Pb(Zr,Ti)O <sub>3</sub> cylindrical composites. <i>Materials Letters</i> , 2016, 185, 13-16.	2.6	9

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91	Albumin adsorption on CoCrMo alloy surfaces. Scientific Reports, 2016, 5, 18403.	3.3	36
92	Eigenstress model for electrochemistry of solid surfaces. Scientific Reports, 2016, 6, 26897.	3.3	16
93	Effect of povidone-iodine deposition on tribocorrosion and antibacterial properties of titanium alloy. Applied Surface Science, 2016, 363, 432-438.	6.1	10
94	Development of a quantitative method for the characterization of hole quality during laser trepan drilling of high-temperature alloy. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	7
95	Switchable valley injection into graphene. Physical Review B, 2015, 92, .	3.2	5
96	Tribocorrosion Behavior of Nanocrystalline Metals &mdash; a Review. Materials Transactions, 2015, 56, 1759-1763.	1.2	16
97	Hydrogen-induced cracking mechanism of precipitation strengthened austenitic stainless steel weldment. International Journal of Hydrogen Energy, 2015, 40, 2404-2414.	7.1	23
98	An investigation on the hole quality during picosecond laser helical drilling of stainless steel 304. Applied Physics A: Materials Science and Processing, 2015, 119, 745-752.	2.3	33
99	The mechanism of precipitation strengthening in Fe-Ni austenitic alloy electron beam weldment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 630, 85-89.	5.6	13
100	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
101	Stress corrosion cracking at low loads: Surface slip and crystallographic analysis. Corrosion Science, 2015, 100, 619-626.	6.6	22
102	Equivalent energy-level structures in stacked metamaterials. Journal of Materials Chemistry C, 2015, 3, 11827-11832.	5.5	6
103	The Antibacterial Efficacy and Biocompatibility of PVP-Iodine Coated Ti-6AL-4V from a Clinical View. Journal of Biomaterials and Tissue Engineering, 2015, 5, 120-127.	0.1	0
104	Bone tissue engineering by using a combination of polymer/Bioglass composites with human adipose-derived stem cells. Cell and Tissue Research, 2014, 356, 97-107.	2.9	46
105	Stress corrosion cracking under low stress: Continuous or discontinuous cracks?. Corrosion Science, 2014, 80, 350-358.	6.6	23
106	A Comparison in laser precision drilling of stainless steel 304 with nanosecond and picosecond laser pulses. Chinese Journal of Mechanical Engineering (English Edition), 2014, 27, 972-977.	3.7	16
107	Hydrogen-induced cracking and service safety evaluation for precipitation strengthened austenitic stainless steel as hydrogen storage tank. International Journal of Hydrogen Energy, 2014, 39, 17921-17928.	7.1	15
108	Passive film-induced stress and mechanical properties of Ti in methanol solution. Corrosion Science, 2014, 78, 287-292.	6.6	27

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109	Cadmium adsorption on plant- and manure-derived biochar and biochar-amended sandy soils: Impact of bulk and surface properties. <i>Chemosphere</i> , 2014, 111, 320-326.	8.2	137
110	An investigation on the biotribocorrosion behaviour of CoCrMo alloy grafted with polyelectrolyte brush. <i>Bio-Medical Materials and Engineering</i> , 2014, 24, 2151-2159.	0.6	8
111	Properties of the plant- and manure-derived biochars and their sorption of dibutyl phthalate and phenanthrene. <i>Scientific Reports</i> , 2014, 4, 5295.	3.3	73
112	Real-time corrosion measurements to assess biotribocorrosion mechanisms with a hip simulator. <i>Tribology International</i> , 2013, 63, 115-122.	5.9	17
113	Microstructure effect on hydrogen-induced cracking in TM210 maraging steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 586, 142-148.	5.6	52
114	Hydrogen embrittlement assessment of ultra-high strength steel 30CrMnSiNi2. <i>Corrosion Science</i> , 2013, 77, 273-280.	6.6	66
115	Investigation of hydrogen evolution and enrichment by scanning Kelvin probe force microscopy. <i>Electrochemistry Communications</i> , 2013, 35, 100-103.	4.7	45
116	(iv) Tribofilm on hip implants. <i>Orthopaedics and Trauma</i> , 2013, 27, 93-100.	0.4	5
117	Stainless steel pitting and early-stage stress corrosion cracking under ultra-low elastic load. <i>Corrosion Science</i> , 2013, 77, 360-368.	6.6	62
118	Biotribocorrosion: Some electrochemical observations from an instrumented hip joint simulator. <i>Tribology International</i> , 2013, 59, 332-338.	5.9	27
119	In-situ electrochemical study of interaction of tribology and corrosion in artificial hip prosthesis simulators. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 18, 191-199.	3.1	37
120	Experimental Research on Erosion and Corrosion of WC-Base Matrix Materials for Drill Bits under Impingement of Drilling Muds. <i>Key Engineering Materials</i> , 2008, 359-360, 171-175.	0.4	0
121	Tribo-corrosion properties of cobalt-based medical implant alloys in simulated biological environments. <i>Wear</i> , 2007, 263, 1105-1111.	3.1	158
122	Biotribocorrosion of CoCrMo orthopaedic implant materials – Assessing the formation and effect of the biofilm. <i>Tribology International</i> , 2007, 40, 1492-1499.	5.9	161
123	Tribocorrosion in implants – assessing high carbon and low carbon Co-Cr-Mo alloys by in situ electrochemical measurements. <i>Tribology International</i> , 2006, 39, 1509-1517.	5.9	117