

# Xiaoying Li

## List of Publications by Year in descending order

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84  
papers

2,012  
citations

236925

25  
h-index

289244

40  
g-index

85  
all docs

85  
docs citations

85  
times ranked

1837  
citing authors

#	ARTICLE	IF	CITATIONS
1	Low temperature plasma carburising of austenitic stainless steels for improved wear and corrosion resistance. <i>Surface Engineering</i> , 1999, 15, 49-54.	2.2	163
2	Surface characterisation of DC plasma electrolytic oxidation treated 6082 aluminium alloy: Effect of current density and electrolyte concentration. <i>Surface and Coatings Technology</i> , 2010, 205, 1679-1688.	4.8	156
3	Towards long-lasting antibacterial stainless steel surfaces by combining double glow plasma silvering with active screen plasma nitriding. <i>Acta Biomaterialia</i> , 2011, 7, 447-457.	8.3	91
4	Tribological properties and wear mechanism of sputtered C/Cr coating. <i>Surface and Coatings Technology</i> , 2001, 142-144, 85-93.	4.8	79
5	In-situ synthesis of TiC/Ti composite coating by high frequency induction cladding. <i>Journal of Alloys and Compounds</i> , 2017, 701, 244-255.	5.5	73
6	Tungsten coatings deposited on CFC tiles by the combined magnetron sputtering and ion implantation technique. <i>Physica Scripta</i> , 2007, T128, 171-174.	2.5	65
7	Active screen plasma nitriding of 316 stainless steel for the application of bipolar plates in proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 21470-21479.	7.1	56
8	Formation and microstructural characterisation of S-phase layers in Ni-free austenitic stainless steels by low-temperature plasma surface alloying. <i>Surface and Coatings Technology</i> , 2009, 204, 330-335.	4.8	48
9	Effects of mechanical properties and layer structure on the cyclic dynamic loading of TiN-based coatings. <i>Surface and Coatings Technology</i> , 2011, 206, 522-529.	4.8	44
10	Surface modification of a medical grade Co-Cr-Mo alloy by low-temperature plasma surface alloying with nitrogen and carbon. <i>Surface and Coatings Technology</i> , 2013, 232, 906-911.	4.8	43
11	Effect of pulse frequency on the one-step preparation of superhydrophobic surface by pulse electrodeposition. <i>Applied Surface Science</i> , 2018, 458, 603-611.	6.1	43
12	Fabrication and characterisation of electro-brush plated nickel-graphene oxide nano-composite coatings. <i>Thin Solid Films</i> , 2017, 644, 106-114.	1.8	40
13	Surface modification of 316 stainless steel with platinum for the application of bipolar plates in high performance proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 2338-2348.	7.1	38
14	Towards a deeper understanding of the formation of friction-induced hillocks on monocrystalline silicon. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 145301.	2.8	37
15	Active screen plasma surface co-alloying of 316 austenitic stainless steel with both nitrogen and niobium for the application of bipolar plates in proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 10281-10292.	7.1	36
16	Nitrogen mass transfer and surface layer formation during the active screen plasma nitriding of austenitic stainless steels. <i>Vacuum</i> , 2018, 148, 224-229.	3.5	36
17	Zirconium carbonitride films deposited by combined magnetron sputtering and ion implantation (CMSII). <i>Surface and Coatings Technology</i> , 2010, 204, 1889-1892.	4.8	35
18	Influence of current density and electrolyte concentration on DC PEO titania coatings. <i>Surface Engineering</i> , 2014, 30, 102-108.	2.2	35

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19	Active screen plasma surface co-alloying treatments of 316 stainless steel with nitrogen and silver for fuel cell bipolar plates. <i>Surface and Coatings Technology</i> , 2015, 283, 122-128.	4.8	35
20	Experimental investigations on hot forming of AA6082 using advanced plasma nitrocarburised and CAPVD WC: C coated tools. <i>Journal of Materials Processing Technology</i> , 2017, 240, 190-199.	6.3	34
21	Development of advanced duplex surface systems by combining CrAlN multilayer coatings with plasma nitrided steel substrates. <i>Surface and Coatings Technology</i> , 2013, 236, 2-7.	4.8	33
22	Plasma-nitriding and characterization of FeAl40 iron aluminide. <i>Acta Materialia</i> , 2015, 86, 341-351.	7.9	32
23	Reduced friction and wear of electro-brush plated nickel composite coatings reinforced by graphene oxide. <i>Wear</i> , 2019, 426-427, 228-238.	3.1	29
24	Plasma-enabled synthesis and modification of advanced materials for electrochemical energy storage. <i>Energy Storage Materials</i> , 2022, 50, 161-185.	18.0	28
25	Fabrication mechanism of friction-induced selective etching on Si(100) surface. <i>Nanoscale Research Letters</i> , 2012, 7, 152.	5.7	27
26	Surface microstructure and antibacterial property of an active-screen plasma alloyed austenitic stainless steel surface with Cu and N. <i>Biomedical Materials (Bristol)</i> , 2010, 5, 054105.	3.3	26
27	The effect of active screen plasma treatment conditions on the growth and performance of Pt nanowire catalyst layer in DMFCs. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 7622-7630.	7.1	26
28	Effect of tensile stress on the formation of S-phase during low-temperature plasma carburizing of 316L foil. <i>Acta Materialia</i> , 2011, 59, 5765-5774.	7.9	25
29	Tribocorrosion behavior of S-phase surface engineered medical grade Co-Cr alloy. <i>Wear</i> , 2013, 302, 1615-1623.	3.1	24
30	Carbon Nanofibers Functionalized with Active Screen Plasma-Deposited Metal Nanoparticles for Electrical Energy Storage Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23195-23201.	8.0	24
31	Sliding friction and wear behaviour of Titanium-Zirconium-Molybdenum (TZM) alloy against Al <sub>2</sub> O <sub>3</sub> and Si <sub>3</sub> N <sub>4</sub> balls under several environments and temperatures. <i>Tribology International</i> , 2017, 110, 348-357.	5.9	24
32	Combat molten aluminum corrosion of AISI H13 steel by low-temperature liquid nitrocarburizing. <i>Journal of Alloys and Compounds</i> , 2019, 776, 702-711.	5.5	23
33	Evaluation of the sliding wear and corrosion performance of triode-plasma nitrided Fe-17Cr-20Mn-0.5N high-manganese and Fe-19Cr-35Ni-1.2Si high-nickel austenitic stainless steels. <i>Surface and Coatings Technology</i> , 2021, 409, 126890.	4.8	23
34	CrN-based wear resistant hard coatings for machining and forming tools. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 104001.	2.8	22
35	Microstructural characterisation of carbon doped CrAlTiN nanoscale multilayer coatings. <i>Surface and Coatings Technology</i> , 2011, 205, 3251-3259.	4.8	20
36	Investigation of surface modifications for combating the molten aluminum corrosion of AISI H13 steel. <i>Corrosion Science</i> , 2020, 174, 108836.	6.6	20

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37	Plasma Surface Functionalization of Carbon Nanofibres with Silver, Palladium and Platinum Nanoparticles for Cost-Effective and High-Performance Supercapacitors. <i>Micromachines</i> , 2019, 10, 2.	2.9	19
38	Friction-induced nanofabrication method to produce protrusive nanostructures on quartz. <i>Nanoscale Research Letters</i> , 2011, 6, 310.	5.7	18
39	A study of TiMoN nano-multilayer coatings deposited by CFUBMSIP using DC and HIPIMS power. <i>Applied Surface Science</i> , 2012, 258, 2062-2067.	6.1	18
40	Enhanced properties of PANâ€ derived carbon fibres and resulting composites by active screen plasma surface functionalisation. <i>Plasma Processes and Polymers</i> , 2020, 17, 1900252.	3.0	18
41	Maskless and low-destructive nanofabrication on quartz by friction-induced selective etching. <i>Nanoscale Research Letters</i> , 2013, 8, 140.	5.7	16
42	Viscoelastic response of carbon fibre reinforced polymer during push-out tests. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 112, 178-185.	7.6	16
43	Active-screen plasma multi-functionalization of graphene oxide for supercapacitor application. <i>Journal of Materials Science</i> , 2021, 56, 3296-3311.	3.7	14
44	Development of surfaces with antibacterial durability through combined S phase plasma hardening and athermal femtosecond laser texturing. <i>Applied Surface Science</i> , 2021, 565, 150594.	6.1	14
45	Design and characterisation of an advanced duplex system based on carbon S-phase case and GiC coatings for 316LVM austenitic stainless steel. <i>Surface and Coatings Technology</i> , 2009, 203, 1273-1280.	4.8	13
46	Design and characterisation of a new duplex surface system based on S-phase hardening and carbon-based coating for ASTM F1537 Coâ€Crâ€Mo alloy. <i>Applied Surface Science</i> , 2014, 292, 336-344.	6.1	13
47	A Rapid One-Step Process for Fabrication of Biomimetic Superhydrophobic Surfaces by Pulse Electrodeposition. <i>Materials</i> , 2017, 10, 1229.	2.9	13
48	Revealing silicon crystal defects by conductive atomic force microscope. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	13
49	Improving the Tribological Properties and Biocompatibility of Zr-Based Bulk Metallic Glass for Potential Biomedical Applications. <i>Materials</i> , 2020, 13, 1960.	2.9	13
50	Mechanical performance of friction-induced protrusive nanostructures on monocrystalline silicon and quartz. <i>Micro and Nano Letters</i> , 2012, 7, 1270-1273.	1.3	12
51	Improving tribological and anti-bacterial properties of titanium external fixation pins through surface ceramic conversion. <i>Journal of Materials Science: Materials in Medicine</i> , 2017, 28, 5.	3.6	12
52	Tribology and hot forming performance of self-lubricious NC/NiBN and NC/WC:C hybrid composite coatings for hot forming die. <i>Journal of Materials Processing Technology</i> , 2018, 252, 183-190.	6.3	12
53	Study on the carbon nanotubes reinforced nanocomposite coatings. <i>Diamond and Related Materials</i> , 2019, 91, 247-254.	3.9	12
54	Characterization of Hot-Steam Oxidation Tested Chromosiliconized Heat-Resistant Austenitic Stainless Steel. <i>Materials Transactions</i> , 2012, 53, 1090-1093.	1.2	12

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55	A study on the effect of ultrashort pulsed laser texturing on the microstructure and properties of metastable S phase layer formed on AISI 316L surfaces. <i>Applied Surface Science</i> , 2020, 511, 145557.	6.1	11
56	The generation of wear-resistant antimicrobial stainless steel surfaces by active screen plasma alloying with N and nanocrystalline Ag. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2010, 93B, 185-193.	3.4	10
57	Combating the Tribo-Corrosion of LDX2404 Lean Duplex Stainless Steel by Low Temperature Plasma Nitriding. <i>Lubricants</i> , 2018, 6, 93.	2.9	10
58	The influence of carbon content on the characteristics of $\text{V-Cr-N}$ coatings deposited by combined magnetron sputtering and ion implantation (CMSII). <i>Surface and Coatings Technology</i> , 2010, 204, 2006-2009.	4.8	9
59	Evaluation of the creep behaviour of the carbon fibre in an unidirectional pultruded reinforced composite using nano-indentation technique. <i>Polymer Testing</i> , 2019, 80, 106091.	4.8	9
60	Comparative Physical-Mechanical Properties Assessment of Tailored Surface-Treated Carbon Fibres. <i>Materials</i> , 2020, 13, 3136.	2.9	9
61	A novel hybrid method combining ASP with PECVD for in-situ low temperature synthesis of vertically aligned carbon nanotube films. <i>Diamond and Related Materials</i> , 2017, 77, 16-24.	3.9	8
62	Response of a molybdenum alloy to plasma nitriding. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018, 72, 388-395.	3.8	8
63	Synthesis and characterization of W reinforced carbon coatings produced by Combined Magnetron Sputtering and Ion Implantation technique. <i>Thin Solid Films</i> , 2011, 519, 4045-4048.	1.8	7
64	Dry Sliding Wear of Active Screen Plasma Carburised Austenitic Stainless Steel. <i>Tribology Letters</i> , 2012, 45, 153-160.	2.6	7
65	Synthesis and in-vitro antibacterial properties of a functionally graded Ag impregnated composite surface. <i>Materials Science and Engineering C</i> , 2019, 99, 150-158.	7.3	7
66	Multistep active screen plasma co-alloying the treatment of metallic bipolar plates. <i>Surface Engineering</i> , 2020, 36, 539-546.	2.2	7
67	The Impact of Carbon Nanofibres on the Interfacial Properties of CFRPs Produced with Sized Carbon Fibres. <i>Polymers</i> , 2021, 13, 3457.	4.5	7
68	3D Printing Processability of a Thermally Conductive Compound Based on Carbon Nanofiller-Modified Thermoplastic Polyamide 12. <i>Polymers</i> , 2022, 14, 470.	4.5	7
69	On the oxidation resistance of superhard $\text{Ti-Si-C-N}$ coatings. <i>Journal of Materials Research</i> , 2008, 23, 2420-2428.	2.6	6
70	On the thermo-mechanical stability and oxidation behavior of carbon S-phase at elevated temperature and under tensile stress. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 600, 90-98.	5.6	6
71	The effect of applied compressive stress on the diffusion of carbon in carbon supersaturated S-phase layer. <i>Surface and Coatings Technology</i> , 2017, 331, 1-6.	4.8	6
72	Transmission electron microscopy microstructural characterization of $\text{Ti-Si-C-N}$ coatings. <i>Journal of Materials Research</i> , 2008, 23, 198-203.	2.6	5

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73	Effect of $\hat{1}/4$ Plasma Modification on the Wettability and the Ageing Behaviour of Glass Fibre Reinforced Polyamide 6 (GFPA6). <i>Materials</i> , 2021, 14, 7721.	2.9	5
74	Development and characterisation of novel anti-bacterial S-phase based coatings. <i>Thin Solid Films</i> , 2017, 644, 71-81.	1.8	3
75	The Effect of Modulation Ratio of Cu/Ni Multilayer Films on the Fretting Damage Behaviour of Ti-811 Titanium Alloy. <i>Materials</i> , 2017, 10, 585.	2.9	3
76	Synthesis and in-vitro antibacterial properties of the novel Ag wires reinforced carbon based composite coatings. <i>Applied Surface Science</i> , 2020, 517, 146207.	6.1	3
77	Low-Temperature Nitrocarburizing of Austenitic Stainless Steel for Combat Corrosion in H <sub>2</sub> S Environments. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 4242-4256.	2.2	3
78	Self-sensing polymeric materials based on fluorescent microcapsules for the detection of microcracks. <i>Journal of Materials Research and Technology</i> , 2021, 16, 505-505.	5.8	3
79	Synthesis and Characterization of (C, N)-Alloyed Stainless Steel Coatings by High Energy Ion Assisted Magnetron Sputtering Deposition. <i>Materials and Manufacturing Processes</i> , 2010, 25, 341-344.	4.7	1
80	Novel Catalytic Ceramic Conversion Treatment of Ti6Al4V for Improved Tribological and Antibacterial Properties for Biomedical Applications. <i>Materials</i> , 2021, 14, 6554.	2.9	1
81	Deposition and Microstructural Characterisation of GLC Coatings on AZ31 Magnesium Alloy. <i>Plasma Processes and Polymers</i> , 2009, 6, S473.	3.0	0
82	Novel wear-resistant anti-bacterial stainless steel surfaces. <i>Surface Engineering</i> , 2018, 34, 577-587.	2.2	0
83	In situ synthesis of the one-dimensional Ag wires reinforced composites film by a novel active screen plasma process: Nanostructure and excellent adhesion resistance. <i>Materials Letters</i> , 2019, 242, 152-155.	2.6	0
84	Enhancement and Evaluation of Interfacial Adhesion between Active Screen Plasma Surface-Functionalised Carbon Fibres and the Epoxy Substrate. <i>Polymers</i> , 2022, 14, 824.	4.5	0