

# Jia-hong Huang

## List of Publications by Year in descending order

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101  
papers

3,064  
citations

136950

32  
h-index

182427

51  
g-index

106  
all docs

106  
docs citations

106  
times ranked

2137  
citing authors

#	ARTICLE	IF	CITATIONS
1	Residual stress measurement in textured thin film by grazing-incidence X-ray diffraction. <i>Thin Solid Films</i> , 2002, 418, 73-78.	1.8	236
2	Mechanical properties of TiN thin film coatings on 304 stainless steel substrates. <i>Surface and Coatings Technology</i> , 2002, 149, 7-13.	4.8	197
3	Effect of nitrogen flow rate on structure and properties of nanocrystalline TiN thin films produced by unbalanced magnetron sputtering. <i>Surface and Coatings Technology</i> , 2005, 191, 17-24.	4.8	107
4	Hardness and residual stress in nanocrystalline ZrN films: Effect of bias voltage and heat treatment. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 500, 104-108.	5.6	105
5	In situ observation of the cracking behavior of TiN coating on 304 stainless steel subjected to tensile strain. <i>Thin Solid Films</i> , 1999, 352, 173-178.	1.8	88
6	Nanohardness of nanocrystalline TiN thin films. <i>Surface and Coatings Technology</i> , 2006, 200, 3868-3875.	4.8	86
7	Corrosion resistance of ZrN films on AISI 304 stainless steel substrate. <i>Surface and Coatings Technology</i> , 2003, 167, 59-67.	4.8	82
8	Deposition of TiN thin films on Si(100) by HCD ion plating. <i>Surface and Coatings Technology</i> , 2001, 140, 206-214.	4.8	79
9	A tensile-film-cracking model for evaluating interfacial shear strength of elastic film on ductile substrate. <i>Surface and Coatings Technology</i> , 2000, 126, 91-95.	4.8	69
10	Aging embrittlement and lattice image analysis in a Fe-Cr-Ni duplex stainless steel aged at 400°C. <i>Journal of Nuclear Materials</i> , 1994, 217, 269-278.	2.7	64
11	Bias effect of ion-plated zirconium nitride film on Si(100). <i>Thin Solid Films</i> , 2002, 405, 162-169.	1.8	62
12	Corrosion behavior of TiN-coated 304 stainless steel. <i>Corrosion Science</i> , 2001, 43, 2023-2035.	6.6	60
13	Corrosion behavior and adhesion of ion-plated TiN films on AISI 304 steel. <i>Materials Chemistry and Physics</i> , 2000, 65, 310-315.	4.0	56
14	Effect of film thickness and Ti interlayer on the structure and properties of nanocrystalline TiN thin films on AISI D2 steel. <i>Surface and Coatings Technology</i> , 2007, 201, 7043-7053.	4.8	54
15	Effect of nitrogen flow rate on the structure and mechanical properties of ZrN thin films on Si(100) and stainless steel substrates. <i>Materials Chemistry and Physics</i> , 2007, 102, 31-38.	4.0	54
16	Effect of hydrogen contents on the mechanical properties of Zircaloy-4. <i>Journal of Nuclear Materials</i> , 1994, 208, 166-179.	2.7	53
17	Microstructure and Hardness of Hollow Cathode Discharge Ion-Plated Titanium Nitride Film. <i>Journal of Materials Engineering and Performance</i> , 1998, 7, 324-328.	2.5	51
18	On the corrosion behavior of TiN-coated AISI D2 steel. <i>Surface and Coatings Technology</i> , 1999, 111, 16-21.	4.8	50

#	ARTICLE	IF	CITATIONS
19	A study of preferred orientation of vanadium nitride and zirconium nitride coatings on silicon prepared by ion beam assisted deposition. <i>Surface and Coatings Technology</i> , 2000, 133-134, 289-294.	4.8	50
20	Mechanical properties of ion-plated TiN films on AISI D2 steel. <i>Surface and Coatings Technology</i> , 1998, 110, 111-119.	4.8	48
21	Texture evolution of transition-metal nitride thin films by ion beam assisted deposition. <i>Thin Solid Films</i> , 2004, 446, 184-193.	1.8	44
22	Effect of Ti interlayer on the residual stress and texture development of TiN thin films. <i>Surface and Coatings Technology</i> , 2006, 200, 5937-5945.	4.8	44
23	Optimization of the deposition process of ZrN and TiN thin films on Si(1 0 0) using design of experiment method. <i>Materials Chemistry and Physics</i> , 2003, 82, 228-236.	4.0	42
24	Effect of nitrogen flow rate on properties of nanostructured TiZrN thin films produced by radio frequency magnetron sputtering. <i>Thin Solid Films</i> , 2010, 518, 7308-7311.	1.8	42
25	Effect of substrate bias on the structure and properties of ion-plated ZrN on Si and stainless steel substrates. <i>Materials Chemistry and Physics</i> , 2003, 77, 14-21.	4.0	41
26	Effect of film thickness on the structure and properties of nanocrystalline ZrN thin films produced by ion plating. <i>Surface and Coatings Technology</i> , 2005, 195, 204-213.	4.8	40
27	Internal hydrogen-induced subcritical crack growth in austenitic stainless steels. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 2605-2618.	1.4	36
28	Effect of heat treatment on the structure and properties of ion-plated TiN films. <i>Surface and Coatings Technology</i> , 2003, 168, 43-50.	4.8	34
29	Heat treatment of nanocrystalline TiN films deposited by unbalanced magnetron sputtering. <i>Surface and Coatings Technology</i> , 2006, 200, 4291-4299.	4.8	34
30	Mechanical properties and corrosion resistance of nanocrystalline ZrN <sub>x</sub> O <sub>y</sub> coatings on AISI 304 stainless steel by ion plating. <i>Surface and Coatings Technology</i> , 2008, 202, 4992-5000.	4.8	34
31	Fracture toughness measurement on TiN hard coatings using internal energy induced cracking. <i>Surface and Coatings Technology</i> , 2014, 239, 20-27.	4.8	34
32	Effect of processing parameters on the microstructure and mechanical properties of TiN film on stainless steel by HCD ion plating. <i>Thin Solid Films</i> , 1999, 355-356, 440-445.	1.8	33
33	Role of process parameters in the texture evolution of TiN films deposited by hollow cathode discharge ion plating. <i>Surface and Coatings Technology</i> , 2001, 141, 156-163.	4.8	32
34	Synthesis and characterization of nanocrystalline ZrN <sub>x</sub> O <sub>y</sub> thin films on Si by ion plating. <i>Surface and Coatings Technology</i> , 2007, 201, 6404-6413.	4.8	32
35	The fracture and shear band formation in an Al <sub>1-x</sub> Cu <sub>x</sub> -Li <sub>1-x</sub> Mg <sub>x</sub> -Zr alloy. <i>Acta Metallurgica</i> , 1986, 34, 1657-1662.2.1		29
36	Effect of Ti interlayer on the residual stress and texture development of TiN thin films deposited by unbalanced magnetron sputtering. <i>Surface and Coatings Technology</i> , 2006, 201, 3199-3204.	4.8	28

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37	Microstructure and coating properties of ion-plated TiN on type 304 stainless steel. <i>Thin Solid Films</i> , 1998, 334, 125-132.	1.8	27
38	Microstructures, mechanical properties and oxidation behavior of vacuum annealed TiZrN thin films. <i>Vacuum</i> , 2015, 115, 12-18.	3.5	27
39	Effect of bias on the structure and properties of TiZrN thin films deposited by unbalanced magnetron sputtering. <i>Thin Solid Films</i> , 2016, 618, 13-20.	1.8	27
40	Oxidation behavior and corrosion resistance of vacuum annealed ZrN-coated stainless steel. <i>Surface and Coatings Technology</i> , 2019, 358, 308-319.	4.8	27
41	An Adaptive Receiver Design for OFDM Systems Using Conjugate Transmission. <i>IEEE Transactions on Communications</i> , 2013, 61, 599-608.	7.8	26
42	Determination of average X-ray strain (AXS) on TiN hard coatings using $\cos^2\psi\sin^2\psi$ X-ray diffraction method. <i>Surface and Coatings Technology</i> , 2015, 262, 40-47.	4.8	26
43	Low-Voltage Operation of ZrO <sub>2</sub> -Gated n-Type Thin-Film Transistors Based on a Channel Formed by Hybrid Phases of SnO and SnO <sub>2</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 15129-15137.	8.0	25
44	Cracking of duplex stainless steel due to dissolved hydrogen. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1995, 26, 1079-1085.	2.2	23
45	Residual stress measurement on TiN thin films by combining nanoindentation and average X-ray strain (AXS) method. <i>Surface and Coatings Technology</i> , 2015, 280, 43-49.	4.8	23
46	Determination of Young's modulus and Poisson's ratio of thin films by combining $\sin^2\psi$ X-ray diffraction and laser curvature methods. <i>Thin Solid Films</i> , 2009, 517, 6759-6766.	1.8	22
47	Texture evolution of vanadium nitride thin films. <i>Thin Solid Films</i> , 2019, 688, 137415.	1.8	22
48	Low energy ion beam assisted deposition of TiN thin films on silicon. <i>Scripta Materialia</i> , 2000, 42, 573-579.	5.2	21
49	Effect of Ti interlayer on mechanical properties of TiZrN coatings on D2 steel. <i>Surface and Coatings Technology</i> , 2018, 350, 745-754.	4.8	21
50	Phase transition and mechanical properties of ZrN <sub>x</sub> O <sub>y</sub> thin films on AISI 304 stainless steel. <i>Surface and Coatings Technology</i> , 2011, 206, 107-116.	4.8	20
51	Control of the corrosion resistance of TiN-coated AISI 304 stainless steel. <i>Corrosion Science</i> , 1997, 39, 893-899.	6.6	19
52	Microstructure and corrosion resistance of nanocrystalline TiZrN films on AISI 304 stainless steel substrate. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 774-778.	2.1	19
53	Effect of Ti interlayer thickness on mechanical properties and wear resistance of TiZrN coatings on AISI D2 steel. <i>Surface and Coatings Technology</i> , 2020, 394, 125690.	4.8	19
54	Hydriding of zirconium alloys in hydrogen gas. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1993, 161, 247-253.	5.6	18

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55	Evaluation of fracture toughness of ZrN hard coatings by internal energy induced cracking method. <i>Surface and Coatings Technology</i> , 2014, 258, 211-218.	4.8	18
56	In situ characterization of fracture toughness and dynamics of nanocrystalline titanium nitride films. <i>Journal of Materials Research</i> , 2016, 31, 370-379.	2.6	18
57	Subcritical crack growth behavior for hydrided Zircaloy-4 plate. <i>Materials Chemistry and Physics</i> , 1997, 47, 184-192.	4.0	17
58	Comparison of electrochemical porosity test methods for TiN-coated stainless steel. <i>Surface and Coatings Technology</i> , 2002, 150, 309-318.	4.8	17
59	Structure evolution and mechanical properties of ZrN <sub>x</sub> O <sub>y</sub> thin film deposited on Si by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2011, 205, 5093-5102.	4.8	16
60	Heat treatment induced phase separation and phase transformation of ZrN <sub>x</sub> O <sub>y</sub> thin films deposited by ion plating. <i>Surface and Coatings Technology</i> , 2009, 203, 3491-3500.	4.8	15
61	Measurement of residual stress on TiN/Ti bilayer thin films using average X-ray strain combined with laser curvature and nanoindentation methods. <i>Materials Chemistry and Physics</i> , 2017, 199, 185-192.	4.0	15
62	Effect of oxygen on fracture toughness of Zr(N,O) hard coatings. <i>Surface and Coatings Technology</i> , 2016, 304, 330-339.	4.8	14
63	Internal hydrogen embrittlement of a ferritic stainless steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1995, 26, 845-849.	2.2	13
64	Characterizing the effects of multiprocess parameters on the preferred orientation of TiN coating using a combined index. <i>Vacuum</i> , 2002, 66, 19-25.	3.5	13
65	The ductile-brittle transition of a zirconium alloy due to hydrogen. <i>Scripta Metallurgica Et Materialia</i> , 1993, 28, 1537-1542.	1.0	12
66	Effect of hydrogen gas on the mechanical properties of a zirconium alloy. <i>Materials Chemistry and Physics</i> , 1994, 38, 138-145.	4.0	12
67	Microstructure, chemistry and coating properties of ion-plated TiN on type 304 stainless steel. <i>Materials Chemistry and Physics</i> , 1997, 50, 248-255.	4.0	12
68	Strong asymmetric effect of lattice mismatch on epilayer structure in thin-film deposition. <i>Physical Review B</i> , 2009, 79, .	3.2	12
69	Growth of BiFeO <sub>3</sub> /SrTiO <sub>3</sub> artificial superlattice structure by RF sputtering. <i>Journal of Crystal Growth</i> , 2011, 334, 90-95.	1.5	12
70	The structure and ferroelectric property of La-doped BiFeO <sub>3</sub> /SrTiO <sub>3</sub> artificial superlattice structure by rf sputtering: Effect of deposition temperature. <i>Thin Solid Films</i> , 2013, 529, 85-88.	1.8	12
71	Evaluation of the fracture toughness of Ti <sub>1-x</sub> Zr <sub>x</sub> N hard coatings: Effect of compositions. <i>Surface and Coatings Technology</i> , 2019, 358, 487-496.	4.8	12
72	Optimization of deposition processing of VN thin films using design of experiment and single-variable (nitrogen flow rate) methods. <i>Materials Chemistry and Physics</i> , 2019, 224, 246-256.	4.0	12

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73	Hydrogen-induced subcritical crack growth in Ti-6Al-4V alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1998, 242, 96-107.	5.6	11

74	Ion beam assisted deposition of TiN thin film on Si (100). <i>Materials Chemistry and Physics</i> , 1999, 59, 49-56.	4.0	11
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#	ARTICLE	IF	CITATIONS
91	Evidence for discontinuous crack growth in delayed hydride cracking of a zirconium alloy. Scripta Metallurgica Et Materialia, 1992, 27, 1247-1251.	1.0	4
92	Characterization of the ion-plated TiN on AISI 304 stainless steel by energy filtering transmission electron microscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 2318-2322.	2.1	4
93	Effect of coating architecture on stress and energy relief efficiency of TiZrN coating on Si substrate. Thin Solid Films, 2022, 751, 139219.	1.8	4
94	Phase transformations in ferrite phase of a duplex stainless steel aged at 500°C. Scripta Metallurgica Et Materialia, 1993, 29, 1451-1456.	1.0	3
95	An Improved Adaptive Receiver for OFDM Systems Using Conjugate Transmission. , 2011, , .		3
96	Evaluation of incipient oxidation behavior of ZrO <sub>2</sub> -Coated Zircaloy-4 by thermogravimetric analysis. Materials Chemistry and Physics, 2021, 262, 124317.	4.0	3
97	Nonvolatile Memory With TiN Nanocrystals Three-Dimensionally Embedded in $\text{Si}_3\text{N}_4$ Formed by Spinodal Phase Segregation. IEEE Electron Device Letters, 2009, 30, 617-619.	3.9	2
98	High-Energy X-Ray Diffraction Study of the Inhomogeneous $\text{Zr}_{43}\text{Cu}_{43}\text{Al}_7\text{Ag}_7$ Bulk Metallic Glasses. Advanced Engineering Materials, 2013, 15, 287-294.	3.5	2
99	Dynamic Strain Aging Behavior of Alloy 600 in a High Temperature Coolant Environment. Materials Transactions, 2015, 56, 1992-1999.	1.2	1
100	Reply to comment on "the ductile-brittle transition of a zirconium alloy due to hydrogen". Scripta Metallurgica Et Materialia, 1994, 30, 1239-1240.	1.0	0
101	Pinhole Enlargement during Electrochemical Porosity Measurement. Corrosion, 2002, 58, 846-848.	1.1	0