Liuwen Chang

List of Publications by Year
in descending order

85 papers	1,814 citations	279701 23 h-index	302012 39 g-index
85 all docs	85 docs citations	85 times ranked	1792 citing authors

#	Article	IF	Citations
1	Building on bubbles in metal electrodeposition. Nature, 2002, 417, 139-139.	13.7	156
2	Improvement of strength of magnesium alloy processed by equal channel angular extrusion. Scripta Materialia, 2008, 59, 1006-1009.	2.6	145
3	The influence of interface modifier on the performance of nanostructured ZnO/polymer hybrid solar cells. Applied Physics Letters, 2009, 94, 063308.	1.5	114
4	Effect of die angle on the deformation texture of copper processed by equal channel angular extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 307, 113-118.	2.6	86
5	Strengthening mechanisms in electrodeposited Niâ€“P alloys with nanocrystalline grains. Scripta Materialia, 2007, 56, 713-716.	2.6	76
6	Hydrogen Bubbles and the Growth Morphology of Ramified Zinc by Electrodeposition. Journal of the Electrochemical Society, 2008, 155, D400.	1.3	74
7	Structural relaxation and nanoindentation response in Zrâ€“Cuâ€“Ti amorphous thin films. Applied Physics Letters, 2008, 93, .	1.5	73
8	On the amorphous and nanocrystalline Zrâ€“Cu and Zrâ€“Ti co-sputtered thin films. Journal of Alloys and Compounds, 2009, 483, 337-340.	2.8	59
9	Structure evolution in sputtered thin films of Ti_{<i>x</i>}(Ni, Cu)_{1âˆ’<i>x</i>}I: Diffusive transformations. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 76, 163-189.	0.7	51
10	Effect of Processing Parameters on Microstructure and Mechanical Properties of an Al-Al11Ce3-Al2O3 In-Situ Composite Produced by Friction Stir Processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 513-522.	1.1	46
11	Mechanical properties of ZrCuTi thin film metallic glass with high content of immiscible tantalum. Surface and Coatings Technology, 2010, 205, 587-590.	2.2	45
12	Title is missing!. Journal of Applied Electrochemistry, 2001, 31, 925-933.	1.5	43
13	Heteroepitaxial growth of Fe2Al5 inhibition layer in hot-dip galvanizing of an interstitial-free steel. Thin Solid Films, 2010, 518, 1935-1942.	0.8	43
14	Growth and characterization of nonpolar ZnO () epitaxial film on Î^3-LiAlO2 substrate by chemical vapor deposition. Journal of Crystal Growth, 2007, 308, 412-416.	0.7	42
15	Amorphous and nanocrystalline sputtered Mgâ€“Cu thin films. Journal of Alloys and Compounds, 2009, 483, 341-345.	2.8	34
16	Crystal Growth of Nonpolar m-Plane ZnO on a Lattice-Matched (100) Î^3-LiAlO₂ Substrate. Crystal Growth and Design, 2009, 9, 2073-2078.	1.4	31
17	The Relationship between Nano Crystallite Structure and Internal Stress in Ni Coatings Electrodeposited by Watts Bath Electrolyte Mixed with Supercritical CO₂. Journal of the Electrochemical Society, 2012, 159, D393-D399.	1.3	30
18	Phase transformations in sputtered thin films of Ti_{<i>x</i>}(Ni, Cu)_{1âˆ’<i>x</i>}II: Displacive transformations. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 76, 191-219.	0.7	29

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19	Role of Al in Zn bath on the formation of the inhibition layer during hot-dip galvanizing for a 1.2Siâ€“1.5Mn transformation-induced plasticity steel. Applied Surface Science, 2013, 285, 458-468.	3.1	28
20	Coherent Microradiology Directly Observes a Critical Cathode-Anode Distance Effect in Localized Electrochemical Deposition. Electrochemical and Solid-State Letters, 2004, 7, C95.	2.2	27
21	Effect of electrolyte temperature on composition and phase structure of nanocrystalline Feâ€“Ni alloys prepared by direct current electrodeposition. Surface and Coatings Technology, 2012, 207, 523-528.	2.2	26
22	Electrodeposition of Niâ€“P Alloys From a Sulfamate Electrolyte. Journal of the Electrochemical Society, 2008, 155, D57.	1.3	24
23	Anisotropic tensile ductility of cold-rolled and annealed aluminum alloy sheet and the beneficial effect of post-anneal rolling. Scripta Materialia, 2009, 60, 340-343.	2.6	24
24	Elevation of premartensitic transformation temperature by (Ni+Cu)2Ti precipitation in sputtered Ni(1â^'x)TiCu(x) thin films. Scripta Metallurgica Et Materialia, 1991, 25, 2079-2084.	1.0	19
25	Effect of Bath Temperature on Microstructure of Sulfamate Nickel Electrodeposits. Materials Transactions, JIM, 2000, 41, 777-782.	0.9	19
26	Epitaxial growth of rocksalt Zn1â^'xMgxO on MgO (100) substrate by molecular beam epitaxy. Journal of Crystal Growth, 2017, 477, 169-173.	0.7	19
27	Growth and characterization of m-plane GaN-based layers on LiAlO2 (100) grown by MOVPE. Journal of Crystal Growth, 2009, 311, 452-455.	0.7	18
28	Mechanical Properties of Nanometric Al₂O₃ Particulate-Reinforced Al-Al₁₁Ce₃ Composites Produced by Friction Stir Processing. Materials Transactions, 2010, 51, 933-938.	0.4	17
29	Luminescence properties of LiGaO 2 crystal. Optical Materials, 2017, 69, 449-459.	1.7	17
30	Study of Selective Oxidation Behavior of a 1.2Si-1.5Mn TRIP Steel during Intercritical Annealing. Journal of the Electrochemical Society, 2012, 159, C561-C570.	1.3	15
31	An electroplating technique using the post supercritical carbon dioxide mixed watts electrolyte. Surface and Coatings Technology, 2013, 232, 234-239.	2.2	15
32	Growth of nonpolar ZnO Films on (100) Î²-LiGaO 2 substrate by molecular beam epitaxy. Journal of Crystal Growth, 2014, 407, 11-16.	0.7	15
33	Growth behavior of nonpolar GaN on the nearly lattice-matched (100) Î³-LiAlO2 substrate by chemical vapor deposition. Journal of Crystal Growth, 2009, 311, 448-451.	0.7	14
34	Growth and Characterization of Nonpolar (101Ì…0) Zn_{1â^'<i>x</i>}Mg_{<i>x</i>}O (0) Tj ETQq0 0 0 rgBT /Overlo Substrates. Crystal Growth and Design, 2009, 9, 3301-3306.	1.4	14
35	Formation of Fe2Al5-xZnx intermetallic crystals at the Fe-Zn interface in hot-dip galvanizing. Materials Characterization, 2018, 137, 189-200.	1.9	14
36	Growth and stability of rocksalt Zn1â^'xMgxO epilayers and ZnO/MgO superlattice on MgO (100) substrate by molecular beam epitaxy. Journal of Chemical Physics, 2016, 144, 214704.	1.2	13

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37	Real-time observation of Zn electro-deposition with high-resolution microradiology. Nuclear Instruments & Methods in Physics Research B, 2003, 199, 451-456.	0.6	12
38	Improved quality of nonpolar m-plane GaN [101Â¯0] on LiAlO2 substrate using a modified chemical vapor deposition. Journal of Applied Physics, 2010, 107, 013502.	1.1	12
39	Epitaxial growth of nonpolar and polar ZnO on Î³-LiAlO2 (100) substrate by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2013, 377, 82-87.	0.7	12
40	Growth, structural, optical and thermal properties of Yb-doped and Ybâ€“Mg codoped LiNbO3 single crystals. Journal of Alloys and Compounds, 2013, 564, 1-7.	2.8	12
41	Optical properties of lithium gallium oxide. Applied Surface Science, 2017, 421, 837-842.	3.1	12
42	Annealing Behavior of Nickel Electrodeposited from Sulfamate Bath at Different Temperatures. Materials Transactions, 2001, 42, 316-322.	0.4	11
43	Grain boundary imaging, gallium diffusion and the fracture behavior of Alâ€“Zn Alloy â€“ An in situ study. Nuclear Instruments & Methods in Physics Research B, 2003, 199, 457-463.	0.6	11
44	Effect of Heating Rate on the Development of Annealing Texture in a 1.09 wt.% Si Non-oriented Electrical Steel. ISIJ International, 2016, 56, 326-334.	0.6	11
45	Analytical Electron Microscopy Study of Interfacial Oxides formed on a Hot-rolled Low-Carbon Steel. Oxidation of Metals, 2005, 63, 131-144.	1.0	10
46	Epitaxial growth of nonpolar ZnO on MgO (100) substrate by molecular beam epitaxy. Journal of Crystal Growth, 2013, 378, 172-176.	0.7	10
47	Spectral and Spatial Luminescence Distribution of<i>m</i>-Plane ZnO Epitaxial Films Containing Stacking Faults: A Cathodoluminescence Study. Applied Physics Express, 2013, 6, 061101.	1.1	10
48	Growth of c-plane ZnO on Î³-LiAlO2 (100) substrate with a GaN buffer layer by plasma assisted molecular beam epitaxy. Applied Surface Science, 2015, 351, 824-830.	3.1	10
49	Rock-salt Zn1â^'xMgxO epilayer having high Zn content grown on MgO (100) substrate by plasma-assisted molecular beam epitaxy. Journal of Crystal Growth, 2013, 378, 168-171.	0.7	9
50	Characterization of the FeAl intermetallic layer formed at Fe Zn interface of a hot-dip galvanized coating containing 5Âwt.% Al. Surface and Coatings Technology, 2020, 396, 125969.	2.2	9
51	Optical characteristics of m-plane InGaN/GaN multiple quantum well grown on LiAlO2 (100) by MOVPE. Journal of Crystal Growth, 2009, 311, 2919-2922.	0.7	8
52	Formation Mechanism of {0001} ZnO Epitaxial Layer on Î³-LiAlO[sub 2](100) Substrate by Chemical Vapor Deposition. Journal of the Electrochemical Society, 2011, 158, H38.	1.3	8
53	Growth of MgO doped near stoichiometric LiNbO3 single crystals by a hanging crucible Czochralski method using a ship lockage type powder feeding system assisted by numerical simulation. CrystEngComm, 2014, 16, 6593.	1.3	8
54	Epitaxial Growth and Microstructural Evolution of Nickel Electrodeposited on a Polycrystalline Copper Substrate. Journal of the Electrochemical Society, 2018, 165, D743-D752.	1.3	8

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55	Epitaxial growth of Cu2O on Cu substrate â€“ A combinatorial substrate approach. Journal of Crystal Growth, 2019, 512, 124-130.	0.7	8
56	Growth behavior and microstructure of ZnO epilayer on Î³â€LiAlO₂(100) substrate by chemical vapor deposition. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 215-219.	0.8	7
57	Growth Behavior of m-Plane ZnO Epilayer on (100) LiGaO2 by Chemical Vapor Deposition. Journal of the Electrochemical Society, 2011, 158, H1166.	1.3	7
58	Microstructure of non-polar GaN on LiGaO2 grown by plasma-assisted MBE. Nanoscale Research Letters, 2011, 6, 425.	3.1	7
59	Strain Relaxation, Defects and Cathodoluminescence of m-Plane ZnO and Zn_{0.8}Mg_{0.2}O Epilayers Grown on Î³-LiAlO₂Substrate. ECS Journal of Solid State Science and Technology, 2013, 2, P338-P345.	0.9	7
60	Achieving high MgO content in wurtzite ZnO epilayer grown on ScAlMgO4 substrate. Journal of Crystal Growth, 2017, 477, 174-178.	0.7	7
61	Correlation between Recrystallization Texture and Heterogeneities in Deformed Structure of an Electrical Steel by Electron Back-scatter Diffraction. ISIJ International, 2015, 55, 2212-2216.	0.6	6
62	Photoconductivities in m-plane and c-plane ZnO epitaxial films grown by chemical vapor deposition on LiGaO2 substrates: a comparative study. RSC Advances, 2016, 6, 86095-86100.	1.7	6
63	Characterization of microtexture of 316L stainless steel fiber after multi-pass drawing by electron backscatter diffraction. Materials Characterization, 2018, 141, 338-347.	1.9	6
64	Effect of nish rolling temperature on static recrystallisation in hot bands of electrical steel containing 1Â·3% silicon. Materials Science and Technology, 2002, 18, 151-159.	0.8	5
65	Compression along the Easy-Glide Orientation of Ultrafine and Fine-Grained Mg-3Al-1Zn Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 3282-3286.	1.1	4
66	Orientation relationships and interfaces of the Feâ€“Zn intermetallic phases in galvannealed CMnSi-TRIP steels. Materials Characterization, 2015, 107, 23-28.	1.9	4
67	Epitaxial growth of nonpolar m-plane ZnO epilayers and ZnO/Zn_{0.55}Mg_{0.45}O multiple quantum wells on a LiGaO₂ (100) substrate. RSC Advances, 2015, 5, 104798-104805.	1.7	4
68	The effects of grain boundary carbides on the low cycle fatigue properties of type 316 stainless steel. Materials Science and Engineering, 1987, 95, 125-136.	0.1	3
69	Practical method for producing galvanised dual-phase steels with superior strength â€“ ductility combination. Materials Science and Technology, 2009, 25, 1265-1270.	0.8	3
70	Deformation Structure of Unidirectionally Compressed Ultrafine-Grained Mg-3Al-1Zn Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2909-2916.	1.1	3
71	Growth of non-polar GaN on LiGaO2 by plasma-assisted MBE. Journal of Crystal Growth, 2011, 323, 76-79.	0.7	3
72	Formation Mechanisms of Islands on Cu-Alloyed GaN Grown by Plasma Assisted Molecular Beam Epitaxy. Journal of the Electrochemical Society, 2011, 158, H860.	1.3	3

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73	Analyzing mechanical properties of a nanocrystalline Feâ€“Ni coating by nanoindentation. Journal of Materials Research, 2011, 26, 2533-2542.	1.2	3
74	Microstructure Characterization of Nonpolar ZnO and Zn1-xMgxO Epilayers Grown on (100) Â-LiAlO2 by Chemical Vapor Deposition. ECS Transactions, 2012, 45, 63-71.	0.3	3
75	The Development and Application of Imaging EXAFS Spectromicroscopy. Japanese Journal of Applied Physics, 1999, 38, 646.	0.8	3
76	Effect of Electrolyte Concentration on Epitaxial Growth of ZnO on Cu Substrates through Electrochemical Deposition. Journal of the Electrochemical Society, 2020, 167, 162505.	1.3	3
77	Epitaxial Growth of ZnO on LiAlO₂ and LiGaO₂ Substrates by Chemical Vapor Deposition. ECS Transactions, 2010, 28, 33-44.	0.3	2
78	Deformation twinning in LiAlO2 at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 551, 218-221.	2.6	2
79	Enhancing the Bias and Illumination Stabilities of Aamorphous InGaZnO Thin Film Transistors Using a SiAlNO Passivation Layer. ECS Solid State Letters, 2014, 3, P53-P56.	1.4	2
80	Effect of Dissolved Carbon on the Recrystallization Texture Formation in Electrical Steels. ISIJ International, 2018, 58, 958-964.	0.6	2
81	Growth and Optical Properties of Nonpolar ($10{ar {1}}0$) Zn_{1â€<i>x</i>}Co_{<i>x</i>}O Epitaxial Film on a <i>Î³</i>â€LiAlO₂ Substrate. Chemical Vapor Deposition, 2011, 17, 88-92.	1.4	1
82	Microstructure Characterization of Cu-Alloyed GaN Grown by Plasma Assisted Molecular Beam Epitaxy. ECS Transactions, 2011, 35, 83-89.	0.3	1
83	Growth Behavior of M-Plane ZnO Epilayer on (100) LiGaO2 by Chemical Vapor Deposition. ECS Transactions, 2011, 35, 133-139.	0.3	1
84	ZnO Nanostructures Prepared on LiAlO2 Substrates by Chemical Vapor Deposition. ECS Transactions, 2013, 45, 13-19.	0.3	0
85	Deposition and characterization of siliconâ€“aluminum non-conductive vacuum metallization coatings. Materials Letters, 2014, 131, 161-163.	1.3	0