Guang Xu

List of Publications by Year in descending order

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119 papers	1,611 citations	430874 18 h-index	434195 31 g-index
120 all docs	120 docs citations	120 times ranked	626 citing authors

#	Article	IF	Citations
1	The development of Ti-alloyed high strength microalloy steel. Materials & Design, 2010, 31, 2891-2896.	5.1	111
2	The effects of Nb and Mo addition on transformation and properties in low carbon bainitic steels. Materials and Design, 2015, 84, 95-99.	7.0	107
3	A new approach to quantitative analysis of bainitic transformation in a superbainite steel. Scripta Materialia, 2013, 68, 833-836.	5.2	84
4	New insights to the effects of ausforming on the bainitic transformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 34-40.	5.6	76
5	Refined Bainite Microstructure and Mechanical Properties of a Highâ€Strength Lowâ€Carbon Bainitic Steel Treated by Austempering Below and Above M_S. Steel Research International, 2018, 89, 1700469.	1.8	47
6	The Effects of Cr and Al Addition on Transformation and Properties in Lowâ€Carbon Bainitic Steels. Metals, 2017, 7, 40.	2.3	39
7	Effect of Mo Content on Microstructure and Property of Low-Carbon Bainitic Steels. Metals, 2016, 6, 173.	2.3	37
8	Effect of ausforming on the stability of retained austenite in a C-Mn-Si bainitic steel. Metals and Materials International, 2015, 21, 929-935.	3.4	35
9	Effect of Cold Deformation on Microstructures and Mechanical Properties of Austenitic Stainless Steel. Metals, 2018, 8, 522.	2.3	33
10	Bainitic Transformation and Properties of Low Carbon Carbide-Free Bainitic Steels with Cr Addition. Metals, 2017, 7, 263.	2.3	31
11	Effects of Al addition on bainite transformation and properties of high-strength carbide-free bainitic steels. Journal of Iron and Steel Research International, 2019, 26, 846-855.	2.8	28
12	Quantitative Analysis of Microstructures and Strength of Nb-Ti Microalloyed Steel with Different Ti Additions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2084-2096.	2.2	27
13	In situ measured growth rates of bainite plates in an Fe-C-Mn-Si superbainitic steel. International Journal of Minerals, Metallurgy and Materials, 2014, 21, 371-378.	4.9	26
14	Effects of Tempering on the Microstructure and Properties of a High-Strength Bainite Rail Steel with Good Toughness. Metals, 2018, 8, 484.	2.3	25
15	Mechanical Behavior of Carbide-free Medium Carbon Bainitic Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1352-1361.	2.2	24
16	Effect of Oxidation Temperature on the Oxidation Process of Silicon-Containing Steel. Metals, 2016, 6, 137.	2.3	23
17	Effect of Rolling Reduction on Microstructure and Property of Ultrafine Grained Low-Carbon Steel Processed by Cryorolling Martensite. Metals, 2018, 8, 518.	2.3	23
18	The Effect of the Si Content on the Morphology and Amount of Fe2SiO4 in Low Carbon Steels. Metals, 2016, 6, 94.	2.3	21

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19	Combined effect of the prior deformation and applied stress on the bainite transformation. Metals and Materials International, 2016, 22, 956-961.	3.4	21
20	Investigating the Properties of Coil Tail in Tiâ€“Nbâ€“Mo Microalloyed Hotâ€Rolled Strip. Steel Research International, 2019, 90, 1900040.	1.8	19
21	Comprehensive analysis on the effects of different stress states on the bainitic transformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 704, 427-433.	5.6	18
22	Investigation of characteristic and evolution of fine-grained bainitic microstructure in the coarse-grained heat-affected zone of super-high strength steel for offshore structure. Materials Characterization, 2019, 157, 109893.	4.4	18
23	Critical ausforming temperature to promote isothermal bainitic transformation in prior-deformed austenite. Materials Science and Technology, 2019, 35, 420-428.	1.6	18
24	Transformation Behavior of Bainite during Two-step Isothermal Process in an Ultrafine Bainite Steel. ISIJ International, 2018, 58, 1875-1882.	1.4	17
25	Transformation Behavior and Properties of Carbideâ€Free Bainite Steels with Different Si Contents. Steel Research International, 2019, 90, 1800474.	1.8	17
26	In situ observations of austenite grain growth in Fe-C-Mn-Si super bainitic steel. International Journal of Minerals, Metallurgy and Materials, 2013, 20, 1060-1066.	4.9	16
27	In Situ Observation of the Lengthening Rate of Bainite Sheaves During Continuous Cooling Process in a Feâ€“Câ€“Mnâ€“Si Superbainitic Steel. Transactions of the Indian Institute of Metals, 2018, 71, 185-194.	1.5	16
28	In-Situ Observation of Martensitic Transformation in a Feâ€“Câ€“Mnâ€“Si Bainitic Steel During Austempering. Metals and Materials International, 2020, 26, 961-972.	3.4	16
29	Improving mechanical properties in high-carbon pearlitic steels by replacing partial V with Nb. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 834, 142622.	5.6	16
30	The Varying Effects of Uniaxial Compressive Stress on the Bainitic Transformation under Different Austenitization Temperatures. Metals, 2016, 6, 119.	2.3	15
31	Effect of Ni Addition on Bainite Transformation and Properties in a 2000ÂMPa Grade Ultrahigh Strength Bainitic Steel. Metals and Materials International, 2018, 24, 1202-1212.	3.4	15
32	Effect of austenisation temperature on bainite transformation below martensite starting temperature. Materials Science and Technology, 2019, 35, 1539-1550.	1.6	15
33	The Effects of Cooling Mode on Precipitation and Mechanical Properties of a Ti-Nb Microalloyed Steel. Journal of Materials Engineering and Performance, 2014, 23, 4216-4222.	2.5	14
34	Effect of Undercooling and Austenitic Grain Size on Bainitic Transformation in an Feâ€“Câ€“Mnâ€“Si Superbainite Steel. Transactions of the Indian Institute of Metals, 2016, 69, 693-698.	1.5	14
35	Effects of Austenitization Temperature and Compressive Stress During Bainitic Transformation on the Stability of Retained Austenite. Transactions of the Indian Institute of Metals, 2017, 70, 1447-1453.	1.5	14
36	Method to Evaluate the Kinetics of Bainite Transformation in Low-Temperature Nanobainitic Steel Using Thermal Dilatation Curve Analysis. Metals, 2017, 7, 330.	2.3	14

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37	Kinetics model of bainitic transformation with stress. Metals and Materials International, 2018, 24, 28-34.	3.4	14
38	Effect of Strain Rate on the Bainitic Transformation in Fe-C-Mn-Si Medium-Carbon Bainitic Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 573-580.	2.2	14
39	Comprehensive analysis of the dilatation during bainitic transformation under stress. Metals and Materials International, 2015, 21, 985-990.	3.4	13
40	New insights to the promoted bainitic transformation in prior deformed austenite in a Fe-C-Mn-Si alloy. Metals and Materials International, 2017, 23, 233-238.	3.4	13
41	Effect of Annealing on the Microstructure and Mechanical Properties of a Low-Carbon Steel with Ultrafine Grains. Metallography, Microstructure, and Analysis, 2017, 6, 233-239.	1.0	13
42	Effects of Ni and Cr on Cryogenic Impact Toughness of Bainite/Martensite Multiphase Steels. Metals and Materials International, 2019, 25, 1151-1160.	3.4	13
43	Effects of Rolling Temperature on the Microstructure and Mechanical Properties in an Ultrafineâ€Grained Lowâ€Carbon Steel. Steel Research International, 2019, 90, 1800318.	1.8	13
44	Evaluation of Mechanical Properties and Microstructures of Ultrafine Grain Low-Carbon Steel Processed by Cryorolling and Annealing. Transactions of the Indian Institute of Metals, 2019, 72, 741-749.	1.5	13
45	Optimized Properties of a Quenching and Partitioning Steel by Quenching at Fine Martensite Start Temperature. Metals and Materials International, 2021, 27, 2473-2480.	3.4	13
46	The Recrystallization Behavior in Ultrafine-Grained Structure Steel Fabricated by Cold Rolling and Annealing. Arabian Journal for Science and Engineering, 2017, 42, 4771-4777.	3.0	12
47	The Effect of P on the Microstructure and Melting Temperature of Fe2SiO4 in Silicon-Containing Steels Investigated by In Situ Observation. Metals, 2017, 7, 37.	2.3	12
48	Transformation kinetics of carbide-free bainitic steels during isothermal holding above and below MS. Journal of Materials Research and Technology, 2020, 9, 13594-13606.	5.8	12
49	Effect of undercooled austenite ausforming on the role of the Mâ€“A constituents in the CGHAZ toughness of the HSLA steels with bainite structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 833, 142571.	5.6	12
50	A new method for accurate plotting continuous cooling transformation curves. Materials Letters, 2008, 62, 3978-3980.	2.6	11
51	New insights into the effects of silicon content on the oxidation process in silicon-containing steels. International Journal of Minerals, Metallurgy and Materials, 2016, 23, 1048-1055.	4.9	11
52	Impact of Al addition on deformation behavior of Feâ€“Crâ€“Niâ€“Mnâ€“C austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 797, 140084.	5.6	11
53	Optimizing Microstructure and Property by Ausforming in a Medium-carbon Bainitic Steel. ISIJ International, 2020, 60, 2007-2014.	1.4	11
54	Influence of Microstructural Length Scale on the Strength and Annealing Behavior of Pearlite, Bainite, and Martensite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1454-1461.	2.2	10

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55	Dynamic observation of twin evolution during austenite grain growth in an Feâ€“Câ€“Mnâ€“Si alloy. International Journal of Materials Research, 2014, 105, 337-341.	0.3	10
56	The effects of external compressive stress on the kinetics of low temperature bainitic transformation and microstructure in a superbainite steel. International Journal of Materials Research, 2015, 106, 1040-1045.	0.3	10
57	The Effect of Large Stress on Bainitic Transformation at Different Transformation Temperatures. Steel Research International, 2017, 88, 1600377.	1.8	10
58	The Effect of Stress on Bainite Transformation, Microstructure, and Properties of a Lowâ€Carbon Bainitic Steel. Steel Research International, 2019, 90, 1900159.	1.8	10
59	Effects of Stress on Martensite Transformation During Continuous Cooling and Mechanical Response of a Medium-Carbon High-Strength Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 597-607.	2.2	10
60	Dynamic observation of bainite transformation in a Fe-C-Mn-Si superbainite steel. Journal Wuhan University of Technology, Materials Science Edition, 2015, 30, 818-821.	1.0	9
61	Effects of Strain and Deformation Temperature on Bainitic Transformation in a Fe-C-Mn-Si Alloy. Steel Research International, 2017, 88, 1600170.	1.8	9
62	Comprehensive Analysis of the Effect of Ausforming on the Martensite Start Temperature in a Fe-C-Mn-Si Medium-Carbon High-Strength Bainite Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 4541-4549.	2.2	9
63	In Situ Study on Interrupted Growth Behavior and Crystallography of Bainite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 817-825.	2.2	9
64	Combined Effects of Deformation and Undercooling on Isothermal Bainitic Transformation in an Fe-C-Mn-Si Alloy. Metals, 2019, 9, 138.	2.3	8
65	Effect of austempering time on microstructure and properties of a low-carbon bainite steel. International Journal of Minerals, Metallurgy and Materials, 2020, 27, 340-346.	4.9	8
66	The Morphologies of Different Types of Fe2SiO4â€“FeO in Si-Containing Steel. Metals, 2017, 7, 8.	2.3	7
67	Effect of Ni and Cr Addition on Transformation and Properties of Low-Carbon Bainitic Steels. Transactions of the Indian Institute of Metals, 2019, 72, 1167-1174.	1.5	7
68	New insights into the effects of deformation below-M on isothermal kinetics of bainitic transformation. Journal of Materials Research and Technology, 2020, 9, 15750-15758.	5.8	7
69	Microstructure and Properties of a Mediumâ€Carbon Highâ€Strength Bainitic Steel Treated by Boroâ€Austempering Treatment. Steel Research International, 2020, 91, 2000128.	1.8	7
70	New insight to the oxidation kinetics of silicon-containing steel at high temperature. Materials at High Temperatures, 2018, 35, 552-557.	1.0	6
71	Effects of oxygen concentration on the passivation of Si-containing steel during high-temperature oxidation. Corrosion Reviews, 2018, 36, 385-393.	2.0	6
72	A Method to Reduce the Oxide Scale of Silicon-Containing Steels by Adjusting the Heating Route. Transactions of the Indian Institute of Metals, 2018, 71, 677-684.	1.5	6

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73	Effect of Surface Oxidation on Decarburization of a Fe-3%Si Steel during Annealing. ISIJ International, 2018, 58, 1727-1734.	1.4	6
74	Composition Optimization of Nb-Ti Microalloyed High Strength Steel. Journal Wuhan University of Technology, Materials Science Edition, 2018, 33, 1193-1197.	1.0	6
75	A new method to predict mechanical properties for microalloyed steels via industrial data and mechanism analysis. Journal of Iron and Steel Research International, 2019, 26, 230-241.	2.8	6
76	Effects of Plastic Stress on Transformation Plasticity and Microstructure of a Carbide-Free Bainite Steel. Metallography, Microstructure, and Analysis, 2019, 8, 159-166.	1.0	6
77	Investigation on Microstructural Delamination and Compositional Segregation in Flange Steel with a High Stretch Ratio. Metals and Materials International, 2021, 27, 1587-1598.	3.4	6
78	Enhanced Mechanical Properties in a Low-Carbon Ultrafine Grain Steel by Niobium Addition. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 5123-5132.	2.2	6
79	Influence of Annealing Technology on Drawing Properties of Cold Sheets Rolled with Compact Strip Production Hot Bands. ISIJ International, 2007, 47, 1767-1771.	1.4	6
80	Comparative study of the role of niobium in low-carbon ferritic and bainitic steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 851, 143579.	5.6	6
81	Effects of Mn on microstructures and properties of hot rolled low carbon bainitic steels. Journal Wuhan University of Technology, Materials Science Edition, 2017, 32, 186-189.	1.0	5
82	Effects of oxygen content on the oxidation process of Si-containing steel during anisothermal heating. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 164-172.	4.9	5
83	Effect of Strain Rate on Deformation Resistance during Ausforming in Feâ€“Câ€“Mnâ€“Si Highâ€Strength Bainite Steels. Steel Research International, 2018, 89, 1800201.	1.8	5
84	Effects of Initial Austenite Grain Size on Microstructure and Mechanical Properties of 5% Nickel Cryogenic Steel. Metallography, Microstructure, and Analysis, 2019, 8, 241-248.	1.0	5
85	The Effects of Cooling Mode on the Properties of Tiâ€“Nb Microalloyed High-strength Hot-rolled Steels. Journal Wuhan University of Technology, Materials Science Edition, 2019, 34, 692-697.	1.0	5
86	Investigation on Microstructure and Properties of Lowâ€Carbon Wearâ€Resistant Steels with Addition of Cr and Ni. Steel Research International, 2020, 91, 1900677.	1.8	5
87	Effect of two-step ausforming on bainite transformation and retained austenite in a medium-carbon bainitic steel. Materials Research Express, 2020, 7, 016519.	1.6	5
88	Effect of Austempering below and above Ms on the Microstructure and Wear Performance of a Low-Carbon Bainitic Steel. Metals, 2022, 12, 104.	2.3	5
89	Effects of Nb Addition on Transformation Kinetics and Microstructure Properties in Low-Carbon Bainitic Steels. Metallography, Microstructure, and Analysis, 2017, 6, 158-163.	1.0	4
90	Correlations Between Microstructure and Dry Friction Wear Behavior of Znâ€“38Alâ€“3.5Cuâ€“1.2ÂMg Alloy Reinforced with SiC Nanoparticles. Transactions of the Indian Institute of Metals, 2019, 72, 2557-2565.	1.5	4

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91	Investigation on the Oxidation Behavior of Dual-Phase Silicon-Containing Steel at Different Beginning Oxidation Temperatures. Arabian Journal for Science and Engineering, 2020, 45, 9015-9022.	3.0	4
92	Microstructure and Wear Properties of a Bainite/Martensite Multi-phase Wear Resistant Steel. ISIJ International, 2021, 61, 434-441.	1.4	4
93	Effect of Vanadium and Strain Rate on Hot Ductility of Low-Carbon Microalloyed Steels. Metals, 2022, 12, 14.	2.3	4
94	Deformation behavior of ultra-low carbon steel in ferrite region during warm processing. Journal Wuhan University of Technology, Materials Science Edition, 2008, 23, 29-32.	1.0	3
95	Effect of Mo on the Precipitation Behavior of FB780 Steel with a High Hole-Expanding Ratio at Different Coiling Temperatures. Transactions of the Indian Institute of Metals, 2020, 73, 2817-2827.	1.5	3
96	Comparison of the Impact Wear Performances of Quenching and Partitioning and Quenching and Tempering Steels. Steel Research International, 2021, 92, 2100325.	1.8	3
97	Effects of Isothermal Transformation at the Quenching Temperature on the Microstructure and Mechanical Properties of a Medium-Carbon Steel. Transactions of the Indian Institute of Metals, 2021, 74, 3265-3272.	1.5	3
98	Simultaneous Enhancement of Strength and Toughness in a Medium-Carbon Martensitic Steel by Ti-Mo Addition. Journal of Materials Engineering and Performance, 2022, 31, 4273-4281.	2.5	3
99	The Corrosion and Wear Behaviors of a Medium-Carbon Bainitic Steel Treated by Boro-Austempering Process. Metals, 2021, 11, 1959.	2.3	3
100	Research on Continuous Cooling Transformation Curve of a C-Si-Mn Steel. Applied Mechanics and Materials, 2014, 556-562, 404-407.	0.2	2
101	Effects of Ultra-Fast Cooling Technology on Microstructure and Properties of Low Carbon Steel. Metallography, Microstructure, and Analysis, 2016, 5, 135-141.	1.0	2
102	Effects of Q&T parameters on phase transformation, microstructure, precipitation and mechanical properties in a PS-30Cr2Nb pipeline steel. Materials Research Express, 2020, 7, 016536.	1.6	2
103	Influences of Quenching Temperature on the Microstructure Evolution and Strengthâ^'Toughness of a Novel Mediumâ€Carbon Tiâ^'Moâ€Bearing Martensite Steel. Steel Research International, 2021, 92, 2100157.	1.8	2
104	Enhanced Thermal Stability of the Lowâ€Carbon Ultrafine Grain Steel with Nanoprecipitates. Steel Research International, 0, , 2100320.	1.8	2
105	Effects of Q&T Parameters on Phase Transformation, Microstructure, Precipitation and Mechanical Properties in an Oil Casing Steel. Physics of Metals and Metallography, 2021, 122, 1463-1472.	1.0	2
106	Microstructure and Properties of a Medium-Carbon Ti-Mo-Bearing Steel Treated by One-Step Quenching and Partitioning Treatment. Journal of Materials Engineering and Performance, 2022, 31, 297-304.	2.5	2
107	Corrosion performance of a corrosion-resistant rail steel in the simulated subsea tunnel environment. Corrosion Reviews, 2021, 39, 561-571.	2.0	2
108	Effects of Tempering Temperature on the Microstructure, Strength, and Toughness of Medium-Carbon Tiâ€"Mo-Bearing Martensitic Steel. Arabian Journal for Science and Engineering, 2022, 47, 9061-9073.	3.0	2

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109	Effect of temperature, carbon content and crystallography on the lengthening kinetics of bainitic ferrite laths. Materials Characterization, 2022, 187, 111860.	4.4	2
110	Effect of Vanadium on the Microstructure and Property of Rebar Steel. Materials Science Forum, 2018, 928, 269-272.	0.3	1
111	Effects of Undercooling and Transformation Time on Microstructure and Strength of Feâ€“Câ€“Mnâ€“Si Superbainitic Steel. Strength of Materials, 2019, 51, 439-449.	0.5	1
112	Effect of Deformation during Austempering on Bainite Transformation and Retained Austenite in a Mediumâ€Carbon Bainitic Steel. Steel Research International, 2020, 91, 1900353.	1.8	1
113	Effect of Ausforming on Retained Austenite After Continuous Cooling Transformation in a Medium-Carbon High Strength Steel. Materials Research, 2020, 23, .	1.3	1
114	Comparison of the strengthening effects of Nb, V, and Ti on the mechanical properties of 20MnSi low-alloy steel. International Journal of Materials Research, 2020, 111, 504-510.	0.3	1
115	Comparison Between the Wear Behavior of U68CuCr and U71MnG Rail Steels. Journal of Materials Engineering and Performance, 2022, 31, 2896-2908.	2.5	1
116	Research on CCT Curve of 12Cr2Mo1R Pressure Vessel Steel. Applied Mechanics and Materials, 2014, 556-562, 468-471.	0.2	0
117	The Effect of Primary Ferrite on Bainitic Transformation, Microstructure, and Properties of Low Carbon Bainitic Steel. Metal Science and Heat Treatment, 2020, 62, 306-314.	0.6	0
118	Microstructure and Crystallography of a Carbide-Free Bainite Steel Under the Effect of Stress. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 0, , 1.	2.2	0
119	Effect of highâ€temperature deformation on bainite transformation of a lowâ€carbon bainite steel. Steel Research International, 0, , .	1.8	0