

Shu-Suo Li

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Role of volatilization of molybdenum oxides during the cyclic oxidation of high-Mo containing Ni-based single crystal superalloys. <i>Corrosion Science</i> , 2017, 129, 192-204.	6.6	50
2	Influence of solution heat treatment on microstructure and stress rupture properties of a Ni3Al base single crystal superalloy IC6SX. <i>Intermetallics</i> , 2011, 19, 182-186.	3.9	40
3	Influence of Cr content on hot corrosion and a special tube sealing test of single crystal nickel base superalloy. <i>Corrosion Science</i> , 2019, 156, 161-170.	6.6	37
4	High temperature tensile behavior of a thin-walled Ni based single-crystal superalloy with cooling hole: In-situ experiment and finite element calculation. <i>Journal of Alloys and Compounds</i> , 2019, 782, 619-631.	5.5	37
5	Improved 1200 °C stress rupture property of single crystal superalloys by γ' -forming elements addition. <i>Scripta Materialia</i> , 2018, 147, 21-26.	5.2	31
6	Effect of thermal stability of γ' phase on the recrystallization behaviors of Ni-based single crystal superalloys. <i>Materials and Design</i> , 2017, 130, 69-82.	7.0	29
7	A comparative study of four modified Al coatings on Ni3Al-based single crystal superalloy. <i>Progress in Natural Science: Materials International</i> , 2011, 21, 496-505.	4.4	27
8	Dislocation network with pair-coupling structure in $\{111\}$ γ/γ' interface of Ni-based single crystal superalloy. <i>Scientific Reports</i> , 2016, 6, 29941.	3.3	26
9	Effect of withdrawal rate on microstructure and lattice misfit of a Ni3Al based single crystal superalloy. <i>Journal of Alloys and Compounds</i> , 2014, 592, 164-169.	5.5	25
10	Influence of solidification history on precipitation behavior of TCP phase in a completely heat-treated Ni3Al based single crystal superalloy during thermal exposure. <i>Journal of Alloys and Compounds</i> , 2017, 722, 740-745.	5.5	22
11	Influence of temperature on the lattice misfit and elastic moduli of a Ni based single crystal superalloy with high volume fraction of γ' phase. <i>Materials Characterization</i> , 2018, 142, 27-38.	4.4	22
12	Effect of substrate orientations on microstructure evolution and stability for single crystal superalloys in rapid solidification process. <i>Materials and Design</i> , 2017, 128, 218-230.	7.0	18
13	Effects of temperature and stress on the creep behavior of a Ni3Al base single crystal alloy. <i>Progress in Natural Science: Materials International</i> , 2013, 23, 205-210.	4.4	17
14	Misorientation induced by withdrawal rate transition and its effect on intermediate temperature stress rupture properties of a Ni3Al based single crystal superalloy. <i>Journal of Alloys and Compounds</i> , 2015, 637, 77-83.	5.5	17
15	Effect of Zr and Mg on microstructure and fracture toughness of Nb-Si based alloys. <i>Rare Metals</i> , 2011, 30, 326-330.	7.1	16
16	Effect of Mo content on microstructure and stress-rupture properties of a Ni-base single crystal superalloy. <i>Progress in Natural Science: Materials International</i> , 2016, 26, 112-116.	4.4	16
17	Partitioning behavior and lattice misfit of γ/γ' phases in Ni-based superalloys with different Mo additions. <i>Rare Metals</i> , 2021, 40, 920-927.	7.1	16
18	Microstructure and Oxidation Behavior of Modified Aluminide Coating on Ni3Al-based Single Crystal Superalloy. <i>Chinese Journal of Aeronautics</i> , 2012, 25, 825-830.	5.3	15

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19	Influence of withdrawal rate on last stage solidification path of a Mo-rich Ni3Al based single crystal superalloy. Journal of Alloys and Compounds, 2015, 623, 362-366.	5.5	14
20	Effect of withdrawal rate on the microsegregation, thermophysical properties and spatial orientation of a Ni3Al based single crystal superalloy. Journal of Alloys and Compounds, 2016, 660, 159-165.	5.5	14
21	Interdendritic Mo homogenization and sub-solidus melting during solution treatment in the Mo-strengthening single crystal superalloys. Journal of Alloys and Compounds, 2016, 662, 431-435.	5.5	14
22	Effect of Re element on oxidation resistance of Ni3Al-Mo based alloys at 1150 Å°C. Transactions of Nonferrous Metals Society of China, 2012, 22, 510-515.	4.2	13
23	New type of γ' phase in Ni based single crystal superalloys: Its formation mechanism and strengthening effect. Materials and Design, 2018, 145, 181-195.	7.0	13
24	Coating-associated microstructure evolution and elemental interdiffusion behavior at a Mo-rich nickel-based superalloy. Surface and Coatings Technology, 2021, 411, 127005.	4.8	12
25	Kinetics and microstructural evolution during recrystallization of a Ni3Al-based single crystal superalloy. Transactions of Nonferrous Metals Society of China, 2012, 22, 2098-2105.	4.2	11
26	Effect of thermal exposure on the stress-rupture life and microstructure of a low Re-containing single crystal alloy. Progress in Natural Science: Materials International, 2015, 25, 84-89.	4.4	11
27	EFFECT OF γ' ON MICROSTRUCTURE AND FRACTURE TOUGHNESS OF DIRECTIONALLY SOLIDIFIED γ -Nb SILICIDE ALLOYS. International Journal of Modern Physics B, 2010, 24, 2964-2969.	2.0	10
28	Surface recrystallization of a Ni3Al based single crystal superalloy at different annealing temperature and blasting pressure. Rare Metals, 2012, 31, 209-214.	7.1	10
29	The mechanism of thermal corrosion fatigue (TCF) on nickel-based single crystal superalloy and the corresponding structure shape effect. Corrosion Science, 2021, 179, 109142.	6.6	9
30	Effect of dendrite arm spacing and the γ' phase size on stress rupture properties of Ni3Al-base single crystal superalloy IC6SX. Science China Technological Sciences, 2010, 53, 1460-1465.	4.0	8
31	Thermal cycle fatigue behaviors of a single crystal Ni3Al base alloy. Procedia Engineering, 2012, 27, 1141-1149.	1.2	8
32	Microstructure and grain boundary morphology evolution of a novel Co-9Al-9W-2Ta-0.02B alloy doped with yttrium. Rare Metals, 2017, 36, 951-961.	7.1	8
33	Effect of temperature and stress on high temperature creep behavior of Ni3Al-based single crystal superalloy. Progress in Natural Science: Materials International, 2022, 32, 267-271.	4.4	8
34	Effect of trace Zn, P and Mg additions on microstructure and mechanical properties of Nb-Si-Ti alloys. Progress in Natural Science: Materials International, 2011, 21, 139-145.	4.4	7
35	Effect of yttrium on oxidation behavior of Ni3Al-based single crystal alloys. Rare Metals, 2011, 30, 538-543.	7.1	7
36	Improved mechanical properties of Ni-rich Ni3Al coatings produced by EB-PVD for repairing single crystal blades. Rare Metals, 2017, 36, 556-561.	7.1	7

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37	Effect of applied stress on γ' -rafting behavior in a Ni-based single-crystal superalloy: experiments and finite element analysis. <i>Journal of Iron and Steel Research International</i> , 2019, 26, 259-267.	2.8	7
38	Effect of trace Ce on high-temperature oxidation behavior of an Al-Si-coated Ni-based single crystal superalloy. <i>Journal of Iron and Steel Research International</i> , 2019, 26, 78-83.	2.8	6
39	Effects of long-term aging at 1070 °C on microstructure of Ni3Al-base single-crystal alloy IC6SX. <i>Rare Metals</i> , 2011, 30, 345-348.	7.1	5
40	Cyclic oxidation behavior of Ni3Al-based single crystal alloy IC21. <i>Rare Metals</i> , 2023, 42, 1656-1662.	7.1	5
41	Effects of Different Surface Native Pre-Oxides on the Hot Corrosion Properties of Nickel-Based Single Crystal Superalloys. <i>Materials</i> , 2020, 13, 5774.	2.9	5
42	Creep behavior and dislocation mechanism of Ni3Al based single crystal alloy IC6SX at 760°C. <i>Progress in Natural Science: Materials International</i> , 2021, 31, 755-761.	4.4	5
43	Hot Corrosion Behavior of a Ni3Al-Based IC21 Alloy in a Molten Salt Environment. <i>Oxidation of Metals</i> , 2014, 81, 631-644.	2.1	4
44	Effects of Alloyed Aluminum and Tantalum on the Topological Inversion Behavior of Ni-Based Single Crystal Superalloys at High Temperature. <i>Advanced Engineering Materials</i> , 2019, 21, 1800793.	3.5	4
45	Effects of melt-pool geometry on microstructure structural damage behavior for single crystal superalloys in rapid solidification process. <i>International Journal of Fatigue</i> , 2018, 111, 345-355.	5.7	3
46	Investigations into the Surface Strain/Stress State in a Single-Crystal Superalloy via XRD Characterization. <i>Metals</i> , 2018, 8, 376.	2.3	3
47	In Situ Creep Behavior Characterization of Single Crystal Superalloy by UV-DIC at 980 °C. <i>Coatings</i> , 2019, 9, 598.	2.6	3
48	Influence of Al content on non-equilibrium solidification behavior of Ni-Al-Ta model single crystal alloys. <i>Journal of Crystal Growth</i> , 2016, 434, 96-103.	1.5	2
49	Study on abnormal hot corrosion behavior of nickel-based single-crystal superalloy at 900°C after drilling. <i>Npj Materials Degradation</i> , 2021, 5, .	5.8	2
50	IMPROVEMENT OF AMBIENT DUCTILITY AND TOUGHNESS BY γ' PHASE PRECIPITATION IN NiAl-CR(MO)/NiB ALLOYS. <i>International Journal of Modern Physics B</i> , 2010, 24, 2898-2903.	2.0	1
51	Directional solidification behavior of turbine blades in DZ125 alloy: design of blade numbers on assembly. <i>Rare Metals</i> , 2021, 40, 1134-1144.	7.1	1