Leo A I Kestens

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5845788/publications.pdf

Version: 2024-02-01

122 papers	3,435 citations	147801 31 h-index	168389 53 g-index
126 all docs	126 docs citations	126 times ranked	2251 citing authors

#	Article	IF	Citations
1	Effect of fresh martensite on the stability of retained austenite in quenching and partitioning steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 615, 107-115.	5.6	190
2	Texture formation in metal alloys with cubic crystal structures. Materials Science and Technology, 2016, 32, 1303-1315.	1.6	173
3	Microstructural and crystallographic aspects of conventional and asymmetric rolling processes. Acta Materialia, 2008, 56, 2495-2507.	7.9	171
4	Microstructure and texture of a lightly deformed TRIP-assisted steel characterized by means of the EBSD technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 447, 285-297.	5.6	168
5	Through process texture evolution and magnetic properties of high Si non-oriented electrical steels. Materials Characterization, 2012, 71, 49-57.	4.4	123
6	Texture Control During the Manufacturing of Nonoriented Electrical Steels. Texture Stress and Microstructure, 2008, 2008, 1-9.	0.3	120
7	Factors influencing the austenite stability during tensile testing of Quenching and Partitioning steel determined via in-situ Electron Backscatter Diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 219-227.	5.6	104
8	The evolution of cube ({001}<100>) texture in non-oriented electrical steel. Acta Materialia, 2020, 185, 540-554.	7.9	100
9	A new ultrahigh-strength stainless steel strengthened by various coexisting nanoprecipitates. Acta Materialia, 2010, 58, 4067-4075.	7.9	92
10	Scanning electrochemical microscopy to study the effect of crystallographic orientation on the electrochemical activity of pure copper. Electrochimica Acta, 2014, 116, 89-96.	5.2	87
11	Modeling the crystallographic texture changes in aluminum alloys during recrystallization. Acta Materialia, 2011, 59, 5735-5748.	7.9	82
12	Deformation, recrystallization and plastic anisotropy of asymmetrically rolled aluminum sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 413-424.	5.6	72
13	Experiments to separate the effect of texture on anisotropy of pipeline steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 601-606.	5.6	60
14	Effect of neighboring grains on the microscopic corrosion behavior of a grain in polycrystalline copper. Corrosion Science, 2013, 67, 179-183.	6.6	60
15	Texture comparison between room temperature rolled and cryogenically rolled pure copper. Acta Materialia, 2015, 95, 224-235.	7.9	57
16	Genetic design and characterization of novel ultra-high-strength stainless steels strengthened by Ni3Ti intermetallic nanoprecipitates. Acta Materialia, 2010, 58, 3582-3593.	7.9	56
17	Evolution of recrystallization textures in particle containing Al alloys after various rolling reductions: Experimental study and modeling. International Journal of Plasticity, 2015, 66, 119-137.	8.8	54
18	Texture Evolution in Siâ€Alloyed Ultra Lowâ€Carbon Steels after Severe Plastic Deformation. Advanced Engineering Materials, 2010, 12, 1077-1081.	3.5	53

#	Article	IF	Citations
19	Analysis of the strengthening mechanisms in pipeline steels as a function of the hot rolling parameters. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 604, 46-56.	5.6	50
20	Evolution of microstructure and texture in commercial pure aluminum subjected to high pressure torsion processing. Materials Characterization, 2016, 120, 285-294.	4.4	50
21	Texture generation and implications in TWIP steels. Scripta Materialia, 2012, 66, 1007-1011.	5.2	45
22	Warm deep-drawing and post drawing analysis of two Alâ€“Mgâ€“Si alloys. Journal of Materials Processing Technology, 2014, 214, 756-766.	6.3	45
23	Orientation dependence of the martensite transformation in a quenched and partitioned steel subjected to uniaxial tension. Journal of Applied Crystallography, 2014, 47, 1261-1266.	4.5	45
24	Selective laser melted stainless steel CX: Role of built orientation on microstructure and micro-mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 786, 139365.	5.6	45
25	Microstructural and texture changes in severely deformed aluminum alloys. Materials Characterization, 2011, 62, 228-236.	4.4	44
26	Microstructure controlled bending response in AA6016 Al alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7068-7076.	5.6	43
27	Analytical description of rolling textures in face-centred-cubic metals. Scripta Materialia, 2013, 68, 273-276.	5.2	41
28	In-Situ Observation of Texture Changes during Phase Transformations in Ultra-Low-Carbon Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 261-267.	2.2	38
29	In Situ Scanning Tunneling Microscopy Study of Grain-Dependent Corrosion on Microcrystalline Copper. Journal of Physical Chemistry C, 2014, 118, 25421-25428.	3.1	36
30	Development of the {113}ã€ˆuvwã€‰ texture during the annealing of a skew cold rolled non-oriented electrical steel. Scripta Materialia, 2016, 124, 179-183.	5.2	36
31	In situ scanning tunneling microscopy study of the intergranular corrosion of copper. Electrochemistry Communications, 2014, 41, 1-4.	4.7	34
32	Factors Affecting Texture Memory Appearing through α→γ→α Transformation in IF Steels. Materials Transactions, 2007, 48, 2036-2042.	1.2	32
33	Plastic deformation throughout strain-induced phase transformation in additively manufactured maraging steels. Materials and Design, 2021, 198, 109289.	7.0	32
34	Recrystallization of a Cold Rolled Trip-assisted Steel during Reheating for Intercritical Annealling.. ISIJ International, 2001, 41, 883-890.	1.4	31
35	Void initiation at TiN precipitates in IF steels during tensile deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4202-4209.	5.6	31
36	Microstructure and mechanical properties of friction stir welded ferrite-martensite DP700 steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 737, 213-222.	5.6	31

#	Article	IF	Citations
37	Grain Refinement and Texture Change in Interstitial Free Steels after Severe Rolling and Ultra-short Annealing. ISIJ International, 2003, 43, 1260-1267.	1.4	29
38	Î±â†'Î³â†'Î± Transformation Texture Formation at Cold-Rolled Ultra Low Carbon Steel Surfaces. Materials Science Forum, 2005, 495-497, 1267-1272.	0.3	29
39	Friction stir welding of advanced high strength dual phase steel: Microstructure, mechanical properties and fracture behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 769, 138490.	5.6	29
40	Microstructure and Texture Changes in a Low-alloyed TRIP-aided Steel Induced by Small Plastic Deformation. ISIJ International, 2006, 46, 302-309.	1.4	28
41	Recrystallization and Related Phenomena. Cold-rolling and Recrystallization Texture Formation in Electro-deposited Pure Iron with a Sharp and Homogeneous .GAMMA.-fiber.. ISIJ International, 1998, 38, 610-616.	1.4	26
42	Three-dimensional EBSD characterization of thermo-mechanical fatigue crack morphology in compacted graphite iron. Materials Characterization, 2014, 90, 13-20.	4.4	25
43	Ultrafine gradient microstructure induced by severe plastic deformation under sliding contact conditions in copper. Materials Characterization, 2018, 138, 263-273.	4.4	25
44	Texture Dependent Mechanical Anisotropy of X80 Pipeline Steel. Advanced Engineering Materials, 2010, 12, 973-980.	3.5	24
45	High temperature deformation of silicon steel. Materials Chemistry and Physics, 2012, 136, 710-719.	4.0	22
46	Volume Expansion of Compacted Graphite Iron Induced by Pearlite Decomposition and the Effect of Oxidation at Elevated Temperature. Oxidation of Metals, 2013, 80, 161-176.	2.1	22
47	An infrared spectroscopic study of sodium silicate adsorption on porous anodic alumina. Surface and Interface Analysis, 2013, 45, 1098-1104.	1.8	22
48	Texture evolution in selective laser melted maraging stainless steel CX with martensitic transformation. Journal of Materials Science, 2021, 56, 844-853.	3.7	22
49	Magnetic Properties of Silicon Steel after Plastic Deformation. Materials, 2020, 13, 4361.	2.9	21
50	Orientation Selective Martensite Transformation in an Fe-28Ni Alloy. ISIJ International, 2003, 43, 1444-1452.	1.4	20
51	Three Dimensional Microstructureâ€“Microtexture Characterization of Pipeline Steel. Materials Science Forum, 2007, 550, 625-630.	0.3	20
52	The Effect of Intermediate Annealing on Texture Banding in Aluminum Alloy 6016. Advanced Engineering Materials, 2010, 12, 1018-1023.	3.5	20
53	Resolving the geometrically necessary dislocation content in severely deformed aluminum by transmission Kikuchi diffraction. Materials Characterization, 2018, 140, 225-232.	4.4	20
54	The Effect of Ultrafast Heating in Cold-Rolled Low Carbon Steel: Recrystallization and Texture Evolution. Metals, 2016, 6, 288.	2.3	19

#	Article	IF	Citations
55	Process parameter influence on texture heterogeneity in asymmetric rolling of aluminium sheet alloys. International Journal of Material Forming, 2018, 11, 297-309.	2.0	19
56	Texture evolution during skew cold rolling and annealing of a non-oriented electrical steel containing 0.9Âwt% silicon. Journal of Materials Science, 2017, 52, 3281-3300.	3.7	18
57	Measurement and characterization of Thermo-Mechanical Fatigue in Compacted Graphite Iron. International Journal of Fatigue, 2013, 48, 319-329.	5.7	17
58	Morphological and crystallographic anisotropy of severely deformed commercially pure aluminium by three-dimensional electron backscatter diffraction. Journal of Applied Crystallography, 2017, 50, 1512-1523.	4.5	16
59	Transformation and Recrystallization Textures Associated with Steel Processing. , 2005, , 685-700.		16
60	The Effect of Heating Rate on the Recrystallization Behavior in Cold Rolled Ultra Low Carbon Steel. Steel Research International, 2017, 88, 1600351.	1.8	15
61	Surface Texture Evolution during Î±-Î³-Î± Transformation in Mn and Al Alloyed Ultra-Low Carbon Steel. Materials Science Forum, 2007, 550, 503-508.	0.3	14
62	Surface energy controlled Î±â€“Î³â€“Î± transformation texture and microstructure character study in ULC steels alloyed with Mn and Al. Journal of Materials Science, 2008, 43, 3969-3975.	3.7	14
63	Effects of Holding Time on Thermomechanical Fatigue Properties of Compacted Graphite Iron Through Tests with Notched Specimens. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2121-2130.	2.2	14
64	Evolution of the microstructural surface characteristics during annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 561, 312-316.	5.6	14
65	Grain and texture evolution in nano/ultrafine-grained bimetallic Al/Ni composite during accumulative roll bonding. Journal of Materials Science, 2018, 53, 12553-12569.	3.7	14
66	Automated reconstruction of parent austenite phase based on the optimum orientation relationship. Journal of Applied Crystallography, 2021, 54, 569-579.	4.5	14
67	Microtexture of Thin Gauge Hot Rolled Steel Strip.. ISIJ International, 2003, 43, 378-385.	1.4	13
68	Grain Refinement and Texture Change in Interstitial Free Steels after Severe Rolling and Ultra-Short Annealing. Materials Science Forum, 2004, 467-470, 287-292.	0.3	13
69	Precipitation in simultaneously nitrided and aged Mo-containing maraging steel. Materials Characterization, 2017, 131, 21-30.	4.4	13
70	The Effect of Strain on the Formation of an Intermetallic Layer in an Al-Ni Laminated Composite. Metals, 2017, 7, 445.	2.3	13
71	Structural dependence of gold deposition by nanoplating in polycrystalline copper. Journal of Materials Science, 2014, 49, 3909-3916.	3.7	12
72	Effect of Grain Boundary-Magnetic Domain Interaction on the Magnetization Behavior of Non-Oriented Electrical Steels. Steel Research International, 2016, 87, 210-218.	1.8	12

#	Article	IF	Citations
73	An approach to microstructure quantification in terms of impact properties of HSLA pipeline steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 163-170.	5.6	11
74	Tracking the Evolution of Annealing Textures from Individual Deformed Grains in a Cross-Rolled Non-oriented Electrical Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 6013-6026.	2.2	11
75	Microstructural Changes after Control Rolling and Interrupted Accelerated Cooling Simulations in Pipeline Steel. Steel Research International, 2011, 82, 352-361.	1.8	9
76	Strain rate dependent dynamic mechanical response of bainitic multiphase steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 745, 279-290.	5.6	9
77	Semi in-situ observation of crystal rotation during cold rolling of commercially pure aluminum. Materials Characterization, 2021, 171, 110752.	4.4	9
78	Microstructural Dependence of Tensile and Fatigue Properties of Compacted Graphite Iron in Diesel Engine Components. Steel Research International, 2016, 87, 772-779.	1.8	8
79	Effect of banding on micro-mechanisms of damage initiation in bainitic/martensitic steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 735, 324-335.	5.6	8
80	Cross-Sectional Texture Gradients in Interstitial Free Steels Processed by Accumulated Roll Bonding. Solid State Phenomena, 2005, 105, 233-238.	0.3	7
81	Textureâ€Induced Anisotropy in Asymmetrically Rolled Aluminium Alloys. Advanced Engineering Materials, 2011, 13, 949-954.	3.5	7
82	Advanced High-Strength Steels: Electron Backscatter Diffraction (EBSD). , 2016, , 46-69.		7
83	Microstructure and Hemming Properties of AA6016 Aluminum Alloy Sheets. Key Engineering Materials, 0, 465, 451-454.	0.4	6
84	Texture Formation in High Strength Low Alloy Steel Reheated with Ultrafast Heating Rates. Materials Science Forum, 0, 702-703, 798-801.	0.3	6
85	Tribological and Microstructural Characterization of Ultrafine Layers Induced by Wear in Ductile Alloys. Tribology Online, 2016, 11, 389-395.	0.9	6
86	Advanced High Strength Steels: Improved Properties by Design of Textures and Microstructures. IOP Conference Series: Materials Science and Engineering, 2017, 219, 012004.	0.6	6
87	Proposal of Characterization Procedure of Metalâ€“Graphite Interface Strength in Compacted Graphite Iron. Materials, 2018, 11, 1159.	2.9	6
88	Thermo-Mechanical Fatigue Lifetime Assessment of Spheroidal Cast Iron at Different Thermal Constraint Levels. Metals, 2019, 9, 1068.	2.3	6
89	The Effect of Martensiteâ€Austenite Constituent Characteristics on the Mechanical Behavior of Quenchedâ€Partitioned Steel at Room Temperature. Steel Research International, 2019, 90, 1800399.	1.8	6
90	Semi in-situ observation of crack initiation in compacted graphite iron during thermo mechanical fatigue. International Journal of Fatigue, 2020, 137, 105648.	5.7	6

#	Article	IF	Citations
91	Mechanical properties and crystallographic texture of non-oriented electrical steel processed by repetitive bending under tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 835, 142665.	5.6	6
92	Recrystallization Texture of Ferrite Steels: Beyond the Î³-Fibre. Materials Science Forum, 0, 702-703, 790-793.	0.3	5
93	Measuring Plasticity with Orientation Contrast Microscopy in Aluminium 6061-T4. Metals, 2017, 7, 108.	2.3	5
94	The Effect of Improved Cooling on the Microstructure and Mechanical Properties of Friction Stirâ€Welded Advanced Highâ€Strength Dualâ€Phase Steel. Steel Research International, 2021, 92, 2000253.	1.8	5
95	Particle Stimulated Nucleation in Severely Deformed Aluminum Alloys. Materials Science Forum, 0, 706-709, 389-394.	0.3	4
96	Optimization of Crystallographic Texture for Sheet-forming Applications Using Taylor-based Models. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5745-5762.	2.2	4
97	Lifetime and Damage Characterization of Compacted Graphite Iron During Thermo-mechanical Fatigue Under Varying Constraint Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 226-236.	2.2	4
98	A New Electron Backscatter Diffraction-Based Method to Study the Role of Crystallographic Orientation in Ductile Damage Initiation. Metals, 2020, 10, 113.	2.3	4
99	Microstructural Evolution in Additively Manufactured Fe-Cr-Ni Maraging Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 1771-1792.	2.2	4
100	The Role of Parent Phase Topology in Double Youngâ€“Kurdjumowâ€“Sachs Variant Selection during Phase Transformation in Low-Carbon Steels. Metals, 2022, 12, 939.	2.3	4
101	Modelling and Characterisation of the Texture Development in the Fusion Zone of An Austenitic Weld. Steel Research International, 2011, 82, 911-917.	1.8	3
102	Modeling the crystallographic changes in processing of Al alloys. Journal of Materials Science, 2014, 49, 3529-3540.	3.7	3
103	Advanced High-Strength Steels: Microstructure and Texture Evolution. , 2016, , 70-99.		3
104	Recrystallization in Severely Deformed Aluminum. Materials Science Forum, 0, 715-716, 267-272.	0.3	2
105	Î±â†'Î³â†'Î± Transformation Texture Formation at Cold-Rolled Ultra Low Carbon Steel Surfaces. Materials Science Forum, 0, , 1267-1272.	0.3	2
106	Texture Control in Manufacturing Current and Future Grades of Low-Carbon Steel Sheet. Ceramic Transactions, 0, , 207-216.	0.1	2
107	Nucleation and Growth of Surface Texture during Î±-Î³-Î± Transformation in Ultra Low Carbon Steel Alloyed with Mn, Al and Si. Solid State Phenomena, 0, 160, 223-228.	0.3	1
108	Heterogeneous Phase Transformation Texture Evolution in Low Alloyed ULC Steel Sheets. Steel Research International, 2011, 82, 881-885.	1.8	1

#	Article	IF	Citations
109	Recrystallization Textures in Aluminum Alloys: Experimental Study and Modelling. Materials Science Forum, 0, 702-703, 611-614.	0.3	1
110	Orientation Gradients in Î±-Fibre Grains of Cold Rolled IF Steels. Materials Science Forum, 0, 706-709, 2611-2616.	0.3	1
111	Physical Simulation of Hot Rolling Steel Plate and Coil Production for Pipeline Applications. Materials Science Forum, 2013, 762, 70-75.	0.3	1
112	A novel method for severe plastic deformation at high strain rate. EPJ Web of Conferences, 2018, 183, 03008.	0.3	1
113	â€œFlashâ€•Annealing in a Coldâ€Rolled Low Carbon Steel Alloyed with Cr, Mn, Mo, and Nb: Part Iâ€”Anisothermal Recrystallization and Transformation Textures. Steel Research International, 2019, 90, 1800277.	1.8	1
114	Advanced Crystal Plasticity Modeling of Multi-Phase Steels: Work-Hardening, Strain Rate Sensitivity and Formability. Applied Sciences (Switzerland), 2021, 11, 6122.	2.5	1
115	Recent Developments in Orientation Contrast Microscopy. , 2022, , 662-681.		1
116	Microstructure, Anisotropy and Formability Evolution of an Annealed AISI 430 Stainless Steel Sheet. Steel Research International, 2022, 93, 2100114.	1.8	1
117	Calculation of macroscopic elasto-plastic anisotropy based on an analytical expression of the Orientation Distribution Function in the case of fibre textures. Computational Materials Science, 2013, 68, 263-270.	3.0	0
118	Automatic Meshing Method for Optimisation of the Fusion Zone Dimensions in Finite Element Models of Welds. Materials Science Forum, 0, 768-769, 597-604.	0.3	0
119	Influence of Texture on Welding Stress Calculations. Steel Research International, 2014, 85, 314-323.	1.8	0
120	Microstructures and Textures of Hot Rolled and Hot Rolled-Normalized 2.9Â% Silicon Steel Sheets. Transactions of the Indian Institute of Metals, 2015, 68, 371-381.	1.5	0
121	Modeling the Recrystallization Textures in Particle Containing Al Alloys after Various Rolling Reductions. , 2012, , 299-304.		0
122	Modeling the Recrystallization Textures in Particle Containing Al Alloys after Various Rolling Reductions. , 0, , 299-304.		0