

Leo A I Kestens

List of Publications by Year in descending order

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126
docs citations

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#	ARTICLE	IF	CITATIONS
1	Recent Developments in Orientation Contrast Microscopy. , 2022, , 662-681.		1
2	Microstructure, Anisotropy and Formability Evolution of an Annealed AISI 430 Stainless Steel Sheet. Steel Research International, 2022, 93, 2100114.	1.8	1
3	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
4	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
5	The Role of Parent Phase Topology in Double Young's Modulus Sachs Variant Selection during Phase Transformation in Low-Carbon Steels. Metals, 2022, 12, 939.	2.3	4
6	Semi in-situ observation of crystal rotation during cold rolling of commercially pure aluminum. Materials Characterization, 2021, 171, 110752.	4.4	9
7	Plastic deformation throughout strain-induced phase transformation in additively manufactured maraging steels. Materials and Design, 2021, 198, 109289.	7.0	32
8	Texture evolution in selective laser melted maraging stainless steel CX with martensitic transformation. Journal of Materials Science, 2021, 56, 844-853.	3.7	22
9	The Effect of Improved Cooling on the Microstructure and Mechanical Properties of Friction Stir Welded Advanced High Strength Dual Phase Steel. Steel Research International, 2021, 92, 2000253.	1.8	5
10	Automated reconstruction of parent austenite phase based on the optimum orientation relationship. Journal of Applied Crystallography, 2021, 54, 569-579.	4.5	14
11	Advanced Crystal Plasticity Modeling of Multi-Phase Steels: Work-Hardening, Strain Rate Sensitivity and Formability. Applied Sciences (Switzerland), 2021, 11, 6122.	2.5	1
12	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
13	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
14	The evolution of cube ($\{001\}$ texture) in non-oriented electrical steel. Acta Materialia, 2020, 185, 540-554.	7.9	100
15	Magnetic Properties of Silicon Steel after Plastic Deformation. Materials, 2020, 13, 4361.	2.9	21
16	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
17	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
18	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

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19	“Flash” Annealing in a Cold-Rolled Low Carbon Steel Alloyed with Cr, Mn, Mo, and Nb: Part II – Anisothermal Recrystallization and Transformation Textures. <i>Steel Research International</i> , 2019, 90, 1800277.	1.8	1
20	Thermo-Mechanical Fatigue Lifetime Assessment of Spheroidal Cast Iron at Different Thermal Constraint Levels. <i>Metals</i> , 2019, 9, 1068.	2.3	6
21	Strain rate dependent dynamic mechanical response of bainitic multiphase steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 745, 279-290.	5.6	9
22	The Effect of Martensite/Austenite Constituent Characteristics on the Mechanical Behavior of Quenched-Partitioned Steel at Room Temperature. <i>Steel Research International</i> , 2019, 90, 1800399.	1.8	6
23	Ultrafine gradient microstructure induced by severe plastic deformation under sliding contact conditions in copper. <i>Materials Characterization</i> , 2018, 138, 263-273.	4.4	25
24	Resolving the geometrically necessary dislocation content in severely deformed aluminum by transmission Kikuchi diffraction. <i>Materials Characterization</i> , 2018, 140, 225-232.	4.4	20
25	Process parameter influence on texture heterogeneity in asymmetric rolling of aluminium sheet alloys. <i>International Journal of Material Forming</i> , 2018, 11, 297-309.	2.0	19
26	A novel method for severe plastic deformation at high strain rate. <i>EPJ Web of Conferences</i> , 2018, 183, 03008.	0.3	1
27	Microstructure and mechanical properties of friction stir welded ferrite-martensite DP700 steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 737, 213-222.	5.6	31
28	Optimization of Crystallographic Texture for Sheet-forming Applications Using Taylor-based Models. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5745-5762.	2.2	4
29	Proposal of Characterization Procedure of Metal-Graphite Interface Strength in Compacted Graphite Iron. <i>Materials</i> , 2018, 11, 1159.	2.9	6
30	Effect of banding on micro-mechanisms of damage initiation in bainitic/martensitic steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 735, 324-335.	5.6	8
31	Grain and texture evolution in nano/ultrafine-grained bimetallic Al/Ni composite during accumulative roll bonding. <i>Journal of Materials Science</i> , 2018, 53, 12553-12569.	3.7	14
32	Texture evolution during skew cold rolling and annealing of a non-oriented electrical steel containing 0.9wt% silicon. <i>Journal of Materials Science</i> , 2017, 52, 3281-3300.	3.7	18
33	Morphological and crystallographic anisotropy of severely deformed commercially pure aluminium by three-dimensional electron backscatter diffraction. <i>Journal of Applied Crystallography</i> , 2017, 50, 1512-1523.	4.5	16
34	Advanced High Strength Steels: Improved Properties by Design of Textures and Microstructures. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 219, 012004.	0.6	6
35	Tracking the Evolution of Annealing Textures from Individual Deformed Grains in a Cross-Rolled Non-oriented Electrical Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 6013-6026.	2.2	11
36	Precipitation in simultaneously nitrided and aged Mo-containing maraging steel. <i>Materials Characterization</i> , 2017, 131, 21-30.	4.4	13

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37	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
38	Measuring Plasticity with Orientation Contrast Microscopy in Aluminium 6061-T4. Metals, 2017, 7, 108.	2.3	5
39	The Effect of Strain on the Formation of an Intermetallic Layer in an Al-Ni Laminated Composite. Metals, 2017, 7, 445.	2.3	13
40	The Effect of Ultrafast Heating in Cold-Rolled Low Carbon Steel: Recrystallization and Texture Evolution. Metals, 2016, 6, 288.	2.3	19
41	Tribological and Microstructural Characterization of Ultrafine Layers Induced by Wear in Ductile Alloys. Tribology Online, 2016, 11, 389-395.	0.9	6
42	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
43	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
44	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
45	Development of the {113} texture during the annealing of a skew cold rolled non-oriented electrical steel. Scripta Materialia, 2016, 124, 179-183.	5.2	36
46	Evolution of microstructure and texture in commercial pure aluminum subjected to high pressure torsion processing. Materials Characterization, 2016, 120, 285-294.	4.4	50
47	Advanced High-Strength Steels: Microstructure and Texture Evolution. , 2016, , 70-99.		3
48	Advanced High-Strength Steels: Electron Backscatter Diffraction (EBSD). , 2016, , 46-69.		7
49	Texture formation in metal alloys with cubic crystal structures. Materials Science and Technology, 2016, 32, 1303-1315.	1.6	173
50	Texture comparison between room temperature rolled and cryogenically rolled pure copper. Acta Materialia, 2015, 95, 224-235.	7.9	57
51	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
52	Microstructures and Textures of Hot Rolled and Hot Rolled-Normalized 2.9% Silicon Steel Sheets. Transactions of the Indian Institute of Metals, 2015, 68, 371-381.	1.5	0
53	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
54	Three-dimensional EBSD characterization of thermo-mechanical fatigue crack morphology in compacted graphite iron. Materials Characterization, 2014, 90, 13-20.	4.4	25

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55	In situ scanning tunneling microscopy study of the intergranular corrosion of copper. <i>Electrochemistry Communications</i> , 2014, 41, 1-4.	4.7	34
56	Structural dependence of gold deposition by nanoplating in polycrystalline copper. <i>Journal of Materials Science</i> , 2014, 49, 3909-3916.	3.7	12
57	Modeling the crystallographic changes in processing of Al alloys. <i>Journal of Materials Science</i> , 2014, 49, 3529-3540.	3.7	3
58	Warm deep-drawing and post drawing analysis of two Al-Mg-Si alloys. <i>Journal of Materials Processing Technology</i> , 2014, 214, 756-766.	6.3	45
59	Scanning electrochemical microscopy to study the effect of crystallographic orientation on the electrochemical activity of pure copper. <i>Electrochimica Acta</i> , 2014, 116, 89-96.	5.2	87
60	Orientation dependence of the martensite transformation in a quenched and partitioned steel subjected to uniaxial tension. <i>Journal of Applied Crystallography</i> , 2014, 47, 1261-1266.	4.5	45
61	In Situ Scanning Tunneling Microscopy Study of Grain-Dependent Corrosion on Microcrystalline Copper. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25421-25428.	3.1	36
62	Effect of fresh martensite on the stability of retained austenite in quenching and partitioning steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 615, 107-115.	5.6	190
63	Influence of Texture on Welding Stress Calculations. <i>Steel Research International</i> , 2014, 85, 314-323.	1.8	0
64	Analysis of the strengthening mechanisms in pipeline steels as a function of the hot rolling parameters. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 604, 46-56.	5.6	50
65	Volume Expansion of Compacted Graphite Iron Induced by Pearlite Decomposition and the Effect of Oxidation at Elevated Temperature. <i>Oxidation of Metals</i> , 2013, 80, 161-176.	2.1	22
66	Calculation of macroscopic elasto-plastic anisotropy based on an analytical expression of the Orientation Distribution Function in the case of fibre textures. <i>Computational Materials Science</i> , 2013, 68, 263-270.	3.0	0
67	Effects of Holding Time on Thermomechanical Fatigue Properties of Compacted Graphite Iron Through Tests with Notched Specimens. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 2121-2130.	2.2	14
68	Measurement and characterization of Thermo-Mechanical Fatigue in Compacted Graphite Iron. <i>International Journal of Fatigue</i> , 2013, 48, 319-329.	5.7	17
69	Physical Simulation of Hot Rolling Steel Plate and Coil Production for Pipeline Applications. <i>Materials Science Forum</i> , 2013, 762, 70-75.	0.3	1
70	An infrared spectroscopic study of sodium silicate adsorption on porous anodic alumina. <i>Surface and Interface Analysis</i> , 2013, 45, 1098-1104.	1.8	22
71	Effect of neighboring grains on the microscopic corrosion behavior of a grain in polycrystalline copper. <i>Corrosion Science</i> , 2013, 67, 179-183.	6.6	60
72	Evolution of the microstructural surface characteristics during annealing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 561, 312-316.	5.6	14

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73	Analytical description of rolling textures in face-centred-cubic metals. Scripta Materialia, 2013, 68, 273-276.	5.2	41
74	Through process texture evolution and magnetic properties of high Si non-oriented electrical steels. Materials Characterization, 2012, 71, 49-57.	4.4	123
75	High temperature deformation of silicon steel. Materials Chemistry and Physics, 2012, 136, 710-719.	4.0	22
76	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
77	Texture generation and implications in TWIP steels. Scripta Materialia, 2012, 66, 1007-1011.	5.2	45
78	Modeling the Recrystallization Textures in Particle Containing Al Alloys after Various Rolling Reductions. , 2012, , 299-304.		0
79	Microstructural and texture changes in severely deformed aluminum alloys. Materials Characterization, 2011, 62, 228-236.	4.4	44
80	Modeling the crystallographic texture changes in aluminum alloys during recrystallization. Acta Materialia, 2011, 59, 5735-5748.	7.9	82
81	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
82	Microstructural Changes after Control Rolling and Interrupted Accelerated Cooling Simulations in Pipeline Steel. Steel Research International, 2011, 82, 352-361.	1.8	9
83	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
84	Heterogeneous Phase Transformation Texture Evolution in Low Alloyed ULC Steel Sheets. Steel Research International, 2011, 82, 881-885.	1.8	1
85	Texture-induced Anisotropy in Asymmetrically Rolled Aluminium Alloys. Advanced Engineering Materials, 2011, 13, 949-954.	3.5	7
86	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
87	A new ultrahigh-strength stainless steel strengthened by various coexisting nanoprecipitates. Acta Materialia, 2010, 58, 4067-4075.	7.9	92
88	Texture Dependent Mechanical Anisotropy of X80 Pipeline Steel. Advanced Engineering Materials, 2010, 12, 973-980.	3.5	24
89	The Effect of Intermediate Annealing on Texture Banding in Aluminum Alloy 6016. Advanced Engineering Materials, 2010, 12, 1018-1023.	3.5	20
90	Texture Evolution in Si-Alloyed Ultra Low-Carbon Steels after Severe Plastic Deformation. Advanced Engineering Materials, 2010, 12, 1077-1081.	3.5	53

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91	Void initiation at TiN precipitates in IF steels during tensile deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4202-4209.	5.6	31
92	Deformation, recrystallization and plastic anisotropy of asymmetrically rolled aluminum sheets. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 528, 413-424.	5.6	72
93	Surface energy controlled α - γ transformation texture and microstructure character study in ULC steels alloyed with Mn and Al. <i>Journal of Materials Science</i> , 2008, 43, 3969-3975.	3.7	14
94	Microstructural and crystallographic aspects of conventional and asymmetric rolling processes. <i>Acta Materialia</i> , 2008, 56, 2495-2507.	7.9	171
95	Texture Control During the Manufacturing of Nonoriented Electrical Steels. <i>Texture Stress and Microstructure</i> , 2008, 2008, 1-9.	0.3	120
96	Three Dimensional Microstructure Microtexture Characterization of Pipeline Steel. <i>Materials Science Forum</i> , 2007, 550, 625-630.	0.3	20
97	Surface Texture Evolution during α - γ Transformation in Mn and Al Alloyed Ultra-Low Carbon Steel. <i>Materials Science Forum</i> , 2007, 550, 503-508.	0.3	14
98	Factors Affecting Texture Memory Appearing through α - γ Transformation in IF Steels. <i>Materials Transactions</i> , 2007, 48, 2036-2042.	1.2	32
99	Microstructure and texture of a lightly deformed TRIP-assisted steel characterized by means of the EBSD technique. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 447, 285-297.	5.6	168
100	In-Situ Observation of Texture Changes during Phase Transformations in Ultra-Low-Carbon Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007, 38, 261-267.	2.2	38
101	Microstructure and Texture Changes in a Low-alloyed TRIP-aided Steel Induced by Small Plastic Deformation. <i>ISIJ International</i> , 2006, 46, 302-309.	1.4	28
102	α - γ Transformation Texture Formation at Cold-Rolled Ultra Low Carbon Steel Surfaces. <i>Materials Science Forum</i> , 2005, 495-497, 1267-1272.	0.3	29
103	Cross-Sectional Texture Gradients in Interstitial Free Steels Processed by Accumulated Roll Bonding. <i>Solid State Phenomena</i> , 2005, 105, 233-238.	0.3	7
104	Transformation and Recrystallization Textures Associated with Steel Processing. , 2005, , 685-700.		16
105	Grain Refinement and Texture Change in Interstitial Free Steels after Severe Rolling and Ultra-Short Annealing. <i>Materials Science Forum</i> , 2004, 467-470, 287-292.	0.3	13
106	Grain Refinement and Texture Change in Interstitial Free Steels after Severe Rolling and Ultra-short Annealing. <i>ISIJ International</i> , 2003, 43, 1260-1267.	1.4	29
107	Orientation Selective Martensite Transformation in an Fe-28Ni Alloy. <i>ISIJ International</i> , 2003, 43, 1444-1452.	1.4	20
108	Microtexture of Thin Gauge Hot Rolled Steel Strip.. <i>ISIJ International</i> , 2003, 43, 378-385.	1.4	13

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109	Recrystallization of a Cold Rolled Trip-assisted Steel during Reheating for Intercritical Annealing.. ISIJ International, 2001, 41, 883-890.	1.4	31
110	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
111	Nucleation and Growth of Surface Texture during $\hat{\alpha}$ - $\hat{\beta}$ - $\hat{\alpha}$ Transformation in Ultra Low Carbon Steel Alloyed with Mn, Al and Si. Solid State Phenomena, 0, 160, 223-228.	0.3	1
112	Microstructure and Hemming Properties of AA6016 Aluminum Alloy Sheets. Key Engineering Materials, 0, 465, 451-454.	0.4	6
113	Recrystallization Textures in Aluminum Alloys: Experimental Study and Modelling. Materials Science Forum, 0, 702-703, 611-614.	0.3	1
114	Texture Formation in High Strength Low Alloy Steel Reheated with Ultrafast Heating Rates. Materials Science Forum, 0, 702-703, 798-801.	0.3	6
115	Recrystallization Texture of Ferrite Steels: Beyond the $\hat{\beta}$ -Fibre. Materials Science Forum, 0, 702-703, 790-793.	0.3	5
116	Particle Stimulated Nucleation in Severely Deformed Aluminum Alloys. Materials Science Forum, 0, 706-709, 389-394.	0.3	4
117	Orientation Gradients in $\hat{\alpha}$ -Fibre Grains of Cold Rolled IF Steels. Materials Science Forum, 0, 706-709, 2611-2616.	0.3	1
118	Recrystallization in Severely Deformed Aluminum. Materials Science Forum, 0, 715-716, 267-272.	0.3	2
119	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
120	$\hat{\alpha}$ - $\hat{\beta}$ - $\hat{\alpha}$ Transformation Texture Formation at Cold-Rolled Ultra Low Carbon Steel Surfaces. Materials Science Forum, 0, , 1267-1272.	0.3	2
121	Texture Control in Manufacturing Current and Future Grades of Low-Carbon Steel Sheet. Ceramic Transactions, 0, , 207-216.	0.1	2
122	Modeling the Recrystallization Textures in Particle Containing Al Alloys after Various Rolling Reductions. , 0, , 299-304.		0