Lionel Germain

List of Publications by Year
in descending order

57 papers	2,075 citations	304602 22 h-index	243529 44 g-index
61 all docs	61 docs citations	61 times ranked	1414 citing authors

#	Article	IF	Citations
1	Deep Learning for automated phase segmentation in EBSD maps. A case study in Dual Phase steel microstructures. Materials Characterization, 2022, 184, 111638.	1.9	19
2	Leveraging EBSD data by deep learning for bainite, ferrite and martensite segmentation. Materials Characterization, 2022, 186, 111805.	1.9	19
3	Estimating single-crystal elastic constants of polycrystalline Î² metastable titanium alloy: A Bayesian inference analysis based on high energy X-ray diffraction and micromechanical modeling. Acta Materialia, 2021, 208, 116762.	3.8	5
4	Crystallographic texture and velocities of ultrasonic waves in a Ni-based superalloy manufactured by laser powder bed fusion. Materials Characterization, 2020, 169, 110607.	1.9	8
5	Criteria for fast and selective Î± precipitation at Î² grain boundaries in Ti-alloys Consequence for in-service microstructures. MATEC Web of Conferences, 2020, 321, 12040.	0.1	1
6	Analysis of Cold Dwell Fatigue Crack Initiation Site in a Î²-Forged Ti-6242 Disk in Relation with Local Texture. Metals, 2020, 10, 951.	1.0	5
7	Elasto-viscoplastic tensile behavior of as-forged Ti-1023 alloy: Experiments and micromechanical modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 787, 139491.	2.6	8
8	Spherical indexing of overlap EBSD patterns for orientation-related phases â€“ Application to titanium. Acta Materialia, 2020, 188, 579-590.	3.8	10
9	Stress partitioning in a near-Î² Titanium alloy induced by elastic and plastic phase anisotropies: experimental and modeling. MATEC Web of Conferences, 2020, 321, 11090.	0.1	0
10	Formation of slip bands and microstructure evolution of Ti-5Al-5Mo-5V-3Cr-0.5Fe alloy during warm deformation process. Journal of Alloys and Compounds, 2019, 770, 183-193.	2.8	22
11	Reconstruction of deformed parent grains from microstructure inherited by phase transformations. Scripta Materialia, 2019, 158, 91-94.	2.6	10
12	Assessment of EBSD Analysis and Reconstruction Methods as a Tool for the Determination of Recrystallized Fractions in Hot-Deformed Austenitic Microstructures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2795-2802.	1.1	7
13	Key Parameters to Promote Granularization of Lath-Like Bainite/Martensite in FeNiC Alloys during Isothermal Holding. Materials, 2018, 11, 1808.	1.3	3
14	Micromechanical Modeling of the Elasto-Viscoplastic Behavior and Incompatibility Stresses of Î²-Ti Alloys. Materials, 2018, 11, 1227.	1.3	6
15	Austenite Reconstruction Elucidates Prior Grain Size Dependence of Toughness in a Low Alloy Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4521-4535.	1.1	21
16	Micromechanical modeling of the effect of elastic and plastic anisotropies on the mechanical behavior of Î²-Ti alloys. International Journal of Plasticity, 2018, 109, 88-107.	4.1	33
17	The origin of striation in the metastable Î² phase of titanium alloys observed by transmission electron microscopy. Journal of Applied Crystallography, 2017, 50, 795-804.	1.9	20
18	Formation and crystallography of nano/ultrafine-trimorphic structure in metastable Î² titanium alloy Ti-5Al-5Mo-5V-3Cr-0.5Fe processed by dynamic deformation at low temperature. Materials Characterization, 2017, 130, 149-155.	1.9	21

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19	Microstructure and Crystallography of Î± Phase Nucleated Dynamically during Thermoâ€Mechanical Treatments in Metastable Î² Titanium Alloy. Advanced Engineering Materials, 2017, 19, 1600859.	1.6	10
20	Hierarchical criteria to promote fast and selective Î±GB precipitation at Î² grain boundaries in Î²-metastable Ti-alloys. Acta Materialia, 2017, 141, 97-108.	3.8	25
21	Fast Granularization of Lath-Like Bainite in FeNiC Alloys During Isothermal Holding at Ms+ 20ÂK (+20ÂÂ°C). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 15-18.	1.1	6
22	Electron beam melted Tiâ€“6Alâ€“4V: Microstructure, texture and mechanical behavior of the as-built and heat-treated material. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 652, 105-119.	2.6	268
23	A direct evidence of solute interactions with a moving ferrite/austenite interface in a model Fe-C-Mn alloy. Scripta Materialia, 2016, 121, 61-65.	2.6	30
24	Unified description of the softening behavior of beta-metastable and alpha+beta titanium alloys during hot deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 280-290.	2.6	55
25	Microstructure characterization and hardness distribution of 13Cr4Ni multipass weld metal. Materials Characterization, 2016, 111, 128-136.	1.9	30
26	Microstructures resulting from the interaction between ferrite recrystallization and austenite formation in dual-phase steels. Journal of Materials Science, 2015, 50, 374-381.	1.7	36
27	Evaluation of the orientation relations from misorientation between inherited variants: Application to ausformed martensite. Acta Materialia, 2015, 82, 137-144.	3.8	27
28	Interactions between ferrite recrystallization and austenite formation in high-strength steels. Journal of Materials Science, 2014, 49, 3608-3621.	1.7	66
29	Identification of sub-grains and low angle boundaries beyond the angular resolution of EBSD maps. Materials Characterization, 2014, 98, 66-72.	1.9	21
30	Characterization of Ti-Al surface alloy formed by pulsed electron-beam melting of film-substrate system. Journal of Physics: Conference Series, 2013, 416, 012007.	0.3	3
31	Influence of transformation temperature on microtexture formation associated with Î± precipitation at Î² grain boundaries in a Î² metastable titanium alloy. Acta Materialia, 2013, 61, 3758-3768.	3.8	111
32	An advanced approach to reconstructing parent orientation maps in the case of approximate orientation relations: Application to steels. Acta Materialia, 2012, 60, 4551-4562.	3.8	126
33	Texture and microtexture variations in a near-Î± titanium forged disk of bimodal microstructure. Acta Materialia, 2012, 60, 2647-2655.	3.8	126
34	Current Approaches for Reconstructing the Parent Microtexture from that Inherited by Phase Transformation. Materials Science Forum, 2011, 702-703, 846-849.	0.3	4
35	Refinement of orientation relations occurring in phase transformation based on considering only the orientations of the variants. Scripta Materialia, 2011, 64, 114-117.	2.6	45
36	Banded structure in Dual Phase steels in relation with the austenite-to-ferrite transformation mechanisms. Journal of Materials Science, 2011, 46, 7026-7038.	1.7	41

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37	Banded structures in dual-phase steels â€“ A novel characterization method. International Journal of Materials Research, 2011, 102, 200-207.	0.1	5
38	QUANTITATIVE ANALYSIS OF BANDED STRUCTURES IN DUAL-PHASE STEELS. Image Analysis and Stereology, 2010, 29, 85.	0.4	13
39	Texture heterogeneities induced by subtransus processing of near Î± titanium alloys. Acta Materialia, 2008, 56, 4298-4308.	3.8	153
40	Reliability of reconstructed Î²-orientation maps in titanium alloys. Ultramicroscopy, 2007, 107, 1129-1135.	0.8	73
41	Crystal plasticity, fatigue crack initiation and fatigue performance of advanced titanium alloys. International Journal of Fatigue, 2007, 29, 2015-2021.	2.8	56
42	Determination of parent orientation maps in advanced titaniumâ€based alloys. Journal of Microscopy, 2007, 227, 284-291.	0.8	27
43	Study of the variant selection in sharp textured regions of bimodal IMI 834 billet. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 430, 157-164.	2.6	69
44	Analysis of sharp microtexture heterogeneities in a bimodal IMI 834 billet. Acta Materialia, 2005, 53, 3535-3543.	3.8	152
45	An automated method to analyze separately the microtextures of primary Î±p grains and the secondary Î±s inherited colonies in bimodal titanium alloys. Materials Characterization, 2005, 54, 216-222.	1.9	31
46	The effects of thermal processing in a magnetic field on grain boundary characters of ferrite in a medium carbon steel. Journal of Materials Science, 2005, 40, 903-908.	1.7	17
47	Î² Microtexture Analysis in Correlation with HCP Textured Regions Observed in a Forged Near Alpha Titanium Alloy. Solid State Phenomena, 2005, 105, 127-132.	0.3	4
48	Î²â†'Î±_s Variant Selection in Sharp hcp Textured Regions of a Bimodal IMI834 Billet. Materials Science Forum, 2005, 495-497, 663-668.	0.3	10
49	Determination of parent Î²-phase orientation from inherited orthorhombic phase in Î²â€‰â†'â€‰Oâ€‰+â€‰B2 phase transformation of Tiâ€“22Alâ€“25Nb alloy. Philosophical Magazine Letters, 2005, 85, 463-471.	0.5	10
50	Study and Modelling of Some Variant Selections in bcc to hcp Phase Transformations. Materials Science Forum, 2005, 495-497, 1111-1120.	0.3	2
51	Analysis of texture evolution in equal channel angular extrusion of copper using a new flow field. Acta Materialia, 2004, 52, 1885-1898.	3.8	179
52	Simulation of Texture Evolution in Equal Channel Angular Extrusion of Copper Using a New Flow Field. Solid Mechanics and Its Applications, 2004, , 191-198.	0.1	0
53	A New Approach to Calculate the Î³ Orientation Maps in Steels. Solid State Phenomena, 0, 160, 203-210.	0.3	16
54	Restitution of the Shapes and Orientations of the Prior Austenitic Grains from Inherited Alpha' Orientation Maps in Steels. Solid State Phenomena, 0, 172-174, 911-915.	0.3	2

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55	Determination of the Orientation Relation from Variants Inherited by Phase Transformation. Materials Science Forum, 0, 702-703, 862-865.	0.3	0
56	Î²â†'Î±_s Variant Selection in Sharp hcp Textured Regions of a Bimodal IMI834 Billet. Materials Science Forum, 0, , 663-668.	0.3	2
57	Rapid grain orientation imaging using spatially resolved acoustic spectroscopy. , 0, , .		1