Nathalie Bozzolo

List of Publications by Year
in descending order

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100	3,436	147801	155660
papers	citations	31 h-index	55 g-index

105	105	105	2346
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Statistical behaviour of interfaces subjected to curvature flow and torque effects applied to microstructural evolutions. Acta Materialia, 2022, 222, 117459.	7.9	13
2	Level-Set Modeling of Grain Growth in 316L Stainless Steel under Different Assumptions Regarding Grain Boundary Properties. Materials, 2022, 15, 2434.	2.9	2
3	Formation of Coarse Recrystallized Grains in 6016 Aluminum Alloy During Holding After Hot Deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 2402-2425.	2.2	2
4	Chemical redistribution and change in crystal lattice parameters during stress relaxation annealing of the AD730TM superalloy. Acta Materialia, 2022, 237, 118141.	7.9	11
5	A new analytical test case for anisotropic grain growth problems. Applied Mathematical Modelling, 2021, 93, 28-52.	4.2	7
6	Nucleation mechanism of hetero-epitaxial recrystallization in wrought nickel-based superalloys. Scripta Materialia, 2021, 191, 7-11.	5.2	23
7	A level set approach to simulate grain growth with an evolving population of second phase particles. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 035009.	2.0	10
8	Nanocrystalline equiatomic CoCrFeNi alloy thin films: Are they single phase fcc?. Surface and Coatings Technology, 2021, 410, 126945.	4.8	12
9	Phase discrimination between Î´ and Î· phases in the new nickel-based superalloy VDM Alloy 780 using EBSD. Materials Characterization, 2021, 176, 111105.	4.4	12
10	An Optimized Geometry of Double-Cone Compression Test Samples for a Better Control of Strain Rate. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 4125-4136.	2.2	4
11	Comparative Study and Limits of Different Level-Set Formulations for the Modeling of Anisotropic Grain Growth. Materials, 2021, 14, 3883.	2.9	9
12	Dissolution of the Primary Î³â€² Precipitates and Grain Growth during Solution Treatment of Three Nickel Base Superalloys. Metals, 2021, 11, 1921.	2.3	14
13	A 2D level set finite element grain coarsening study with heterogeneous grain boundary energies. Applied Mathematical Modelling, 2020, 78, 505-518.	4.2	19
14	Microstructure evolution and thermal stability of equiatomic CoCrFeNi films on (0001) Î±-Al2O3. Acta Materialia, 2020, 200, 908-921.	7.9	12
15	Full field modeling of dynamic recrystallization in a CPFEM context â€“ Application to 304L steel. Computational Materials Science, 2020, 184, 109892.	3.0	11
16	Viewpoint on the Formation and Evolution of Annealing Twins During Thermomechanical Processing of FCC Metals and Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2665-2684.	2.2	61
17	A mean field model of agglomeration as an extension to existing precipitation models. Acta Materialia, 2020, 192, 40-51.	7.9	4
18	Dynamic and Post-dynamic Recrystallization During Supersolvus Forging of the New Nickel-Based Superalloyâ€"VDM Alloy 780. Minerals, Metals and Materials Series, 2020, , 450-460.	0.4	7

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19	Influence of strain rate on subsolvus dynamic and post-dynamic recrystallization kinetics of Inconel 718. Acta Materialia, 2019, 174, 406-417.	7.9	94
20	Estimation of geometrically necessary dislocation density from filtered EBSD data by a local linear adaptation of smoothing splines. Journal of Applied Crystallography, 2019, 52, 548-563.	4.5	30
21	Influence of the strain path changes on the formability of a zinc sheet. Journal of Materials Processing Technology, 2019, 271, 101-110.	6.3	17
22	Discrimination of dynamically and postâ€dynamically recrystallized grains based on EBSD data: application to Inconel 718. Journal of Microscopy, 2019, 273, 135-147.	1.8	33
23	Growth and orientation relationships of lath and film α inherited on slightly miscut <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mn>1</mml:mn><mml:mspace width="5.0pt") Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 577 Td	1.5	3
24	Introduction to the level-set full field modeling of laths spheroidization phenomenon in Î±/Î² titanium alloys. International Journal of Material Forming, 2019, 12, 173-183.	2.0	3
25	Overgrown grains appearing during sub-solvus heat treatment in a polycrystalline Î³-Î³â€™ Nickel-based superalloy. Materials and Design, 2018, 144, 353-360.	7.0	44
26	Full field modeling of recrystallization: Effect of intragranular strain gradients on grain boundary shape and kinetics. Computational Materials Science, 2018, 150, 149-161.	3.0	16
27	Î³â€² precipitates with a twin orientation relationship to their hosting grain in a Î³-Î³â€² nickel-based superalloy. Scripta Materialia, 2018, 153, 10-13.	5.2	13
28	A new topological approach for the mean field modeling of dynamic recrystallization. Materials and Design, 2018, 146, 194-207.	7.0	21
29	A novel level-set finite element formulation for grain growth with heterogeneous grain boundary energies. Materials and Design, 2018, 160, 578-590.	7.0	32
30	Consequences of a Room-Temperature Plastic Deformation During Processing on Creep Durability of a Ni-Based SX Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4246-4261.	2.2	20
31	iCHORD-SI combination as an alternative to EDS-EBSD coupling for the characterization of Î³-Î³â€² nickel-based superalloy microstructures. Materials Characterization, 2018, 142, 492-503.	4.4	10
32	On the Coupling between Recrystallization and Precipitation Following Hot Deformation in a Î³-Î³â€² Nickel-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4199-4213.	2.2	31
33	A Mechanism Leading to Î³â€² Precipitates with {111} Facets and Unusual Orientation Relationships to the Matrix in Î³â€“Î³â€² Nickel-Based Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4308-4323.	2.2	11
34	On the evaluation of dislocation densities in pure tantalum from EBSD orientation data. Materiaux Et Techniques, 2018, 106, 604.	0.9	17
35	Prediction of the grain size evolution during thermal treatments at the mesoscopic scale: a numerical framework and industrial examples. Materiaux Et Techniques, 2018, 106, 105.	0.9	2
36	Statistical analysis of dislocations and dislocation boundaries from EBSD data. Ultramicroscopy, 2017, 179, 63-72.	1.9	95

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37	Substrate Grain-Dependent Chemistry of Carburized Planar Anodic TiO₂ on Polycrystalline Ti. ACS Omega, 2017, 2, 631-640.	3.5	9
38	Modeling of dynamic and post-dynamic recrystallization by coupling a full field approach to phenomenological laws. Materials and Design, 2017, 133, 498-519.	7.0	50
39	Electron backscatter diffraction study of orientation gradients at the grain boundaries of a polycrystalline steel sheet deformed along different loading paths. Journal of Applied Crystallography, 2017, 50, 1179-1191.	4.5	7
40	In Situ Characterization of Inconel 718 Post-Dynamic Recrystallization within a Scanning Electron Microscope. Metals, 2017, 7, 476.	2.3	32
41	Evolution of the Annealing Twin Density during Î´-Supersolvus Grain Growth in the Nickel-Based Superalloy Inconelâ„¢ 718. Metals, 2016, 6, 5.	2.3	29
42	Heteroepitaxial Recrystallization, a New Recrystallization Mechanism in Sub-Solvus Forged Î³-Î³â€™ Nickel-Based Superalloys with Low Lattice Mismatch. , 2016, , 259-264.		2
43	Fabrication of Ti substrate grain dependent C/TiO₂ composites through carbothermal treatment of anodic TiO₂. Physical Chemistry Chemical Physics, 2016, 18, 9220-9231.	2.8	6
44	3D level set modeling of static recrystallization considering stored energy fields. Computational Materials Science, 2016, 122, 57-71.	3.0	48
45	Improvement of 3D mean field models for capillarity-driven grain growth based on full field simulations. Journal of Materials Science, 2016, 51, 10970-10981.	3.7	14
46	Heteroepitaxial recrystallization: A new mechanism discovered in a polycrystalline Î³-Î³â€² nickel based superalloy. Journal of Alloys and Compounds, 2016, 688, 685-694.	5.5	62
47	Introduction to the level-set full field modeling of laths spheroidization phenomenon in Î±/Î² titanium alloys. MATEC Web of Conferences, 2016, 80, 02003.	0.2	2
48	Evidence of multimicrometric coherent Î³â€² precipitates in a hotâ€forged Î³â€“Î³â€² nickelâ€based superalloy. Journal of Microscopy, 2016, 263, 106-112.	1.8	34
49	Mean field modelling of dynamic and post-dynamic recrystallization during hot deformation of Inconel 718 in the absence of Î´ phase particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 655, 408-424.	5.6	79
50	About quantitative EBSD analysis of deformation and recovery substructures in pure Tantalum. IOP Conference Series: Materials Science and Engineering, 2015, 89, 012038.	0.6	110
51	Selective Growth of Low Stored Energy Grains During Î´ Sub-solvus Annealing in the Inconel 718 Nickel-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4405-4421.	2.2	99
52	New finite element developments for the full field modeling of microstructural evolutions using the level-set method. Computational Materials Science, 2015, 109, 388-398.	3.0	52
53	Thermo-mechanical factors influencing annealing twin development in nickel during recrystallization. Journal of Materials Science, 2015, 50, 5191-5203.	3.7	43
54	2D finite element modeling of misorientation dependent anisotropic grain growth in polycrystalline materials: Level set versus multi-phase-field method. Computational Materials Science, 2015, 104, 108-123.	3.0	29

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55	Observation of annealing twin nucleation at triple lines in nickel during grain growth. Acta Materialia, 2015, 99, 63-68.	7.9	73
56	Annealing twin development during recrystallization and grain growth in pure nickel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 295-303.	5.6	175
57	Carbothermal Transformation of TiO₂ into TiO_xC_y in UHV: Tracking Intrinsic Chemical Stabilities. Journal of Physical Chemistry C, 2014, 118, 22601-22610.	3.1	29
58	A metallurgical approach to individually assess the rheology of alpha and beta phases of Tiâ€“6Alâ€“4V in the two-phase domain. Materials Characterization, 2014, 89, 88-92.	4.4	11
59	Development of a level set methodology to simulate grain growth in the presence of real secondary phase particles and stored energy â€“ Application to a nickel-base superalloy. Computational Materials Science, 2014, 89, 233-241.	3.0	49
60	Multipass forging of Inconel 718 in the delta-Supersolvus domain: assessing and modeling microstructure evolution. MATEC Web of Conferences, 2014, 14, 12001.	0.2	4
61	EBSD coupled to SEM in situ annealing for assessing recrystallization and grain growth mechanisms in pure tantalum. Journal of Microscopy, 2013, 250, 189-199.	1.8	20
62	Evolution of Microstructure in Pure Nickel during Processing for Grain Boundary Engineering. Materials Science Forum, 2013, 753, 97-100.	0.3	4
63	Strain Induced Abnormal Grain Growth in Nickel Base Superalloys. Materials Science Forum, 2013, 753, 321-324.	0.3	31
64	Magnetically Affected Texture and Microstructure Evolution during Grain Growth in Zirconium. Materials Science Forum, 2012, 715-716, 946-951.	0.3	5
65	Evolution of microstructure and twin density during thermomechanical processing in a Î³-Î³â€™ nickel-based superalloy. Acta Materialia, 2012, 60, 5056-5066.	7.9	97
66	Fast in-situ annealing stage coupled with EBSD: A suitable tool to observe quick recrystallization mechanisms. Materials Characterization, 2012, 70, 28-32.	4.4	41
67	A New Approach to Modeling the Flow Curve of Hot Deformed Austenite. ISIJ International, 2011, 51, 945-950.	1.4	38
68	Effect of Recrystallization on Tensile Behavior, Texture, and Anisotropy of Ti-3Al-2.5â€‰V Cold Pilgered Tubes. Advanced Engineering Materials, 2011, 13, 383-387.	3.5	6
69	Physical and chemical analyses on single source precursor growth CdSe semiconductor nanomaterials. Materials Chemistry and Physics, 2010, 124, 129-133.	4.0	7
70	About the possibility of grain boundary engineering via hot-working in a nickel-base superalloy. Scripta Materialia, 2010, 62, 851-854.	5.2	61
71	Observations on the effect of a magnetic field on the annealing texture and microstructure evolution in zirconium. Acta Materialia, 2010, 58, 3568-3581.	7.9	49
72	Misorientations induced by deformation twinning in titanium. Journal of Applied Crystallography, 2010, 43, 596-602.	4.5	84

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73	Effect of Thermomechanical Processes on Î£3 Grain Boundary Distribution in a Nickel Base Superalloy. Materials Science Forum, 2010, 638-642, 2333-2338.	0.3	1
74	About texture stability during primary recrystallization of cold-rolled low alloyed zirconium. Scripta Materialia, 2009, 60, 203-206.	5.2	40
75	Analysis of the tensile behavior of a TWIP steel based on the texture and microstructure evolutions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 500, 196-206.	5.6	404
76	EBSD for analysing the twinning microstructure in fineâ€grained TWIP steels and its influence on work hardening. Journal of Microscopy, 2009, 235, 67-78.	1.8	53
77	Grain Boundary Character Evolution during Grain Growth in a Zr Alloy. Materials Science Forum, 2007, 558-559, 863-868.	0.3	10
78	Modeling the Evolution of Orientation Distribution Functions during Grain Growth of some Ti and Zr Alloys. Materials Science Forum, 2007, 558-559, 1163-1168.	0.3	1
79	Recrystallisation Behavior of Cold Rolled Zr702: Influence of Rolling Direction and Thickness Reduction. Materials Science Forum, 2007, 550, 459-464.	0.3	1
80	The mechanisms of microstructure formation in a nanostructured oxide dispersion strengthened FeAl alloy obtained by spark plasma sintering. Intermetallics, 2007, 15, 108-118.	3.9	87
81	Accuracy of orientation distribution function determination based on EBSD data-A case study of a recrystallized low alloyed Zr sheet. Journal of Microscopy, 2007, 227, 275-283.	1.8	27
82	Microstructure and microtexture of highly cold-rolled commercially pure titanium. Journal of Materials Science, 2007, 42, 2405-2416.	3.7	72
83	Crystal orientation distribution in highly oriented diamond films investigated by SEM and TEM. Diamond and Related Materials, 2006, 15, 531-535.	3.9	5
84	Hardness, thermal stability and yttrium distribution in nanostructured deposits obtained by thermal spraying from milledâ€"Y2O3 reinforcedâ€"or atomized FeAl powders. Intermetallics, 2006, 14, 715-721.	3.9	25
85	Texture evolution during grain growth in recrystallized commercially pure titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 397, 346-355.	5.6	97
86	Low Temperature Tempering of a Medium Carbon Steel in High Magnetic Field. ISIJ International, 2005, 45, 913-917.	1.4	45
87	Influence of Deformation Substructures on the Early Mechanisms of Recrystallization in Cold-Rolled Titanium and Zirconium. Materials Science Forum, 2005, 495-497, 711-718.	0.3	3
88	Magnetically affected texture and grain structure development in titanium. Materials Letters, 2005, 59, 3209-3213.	2.6	21
89	Grain Growth Texture Evolution in Zirconium (Zr702) and Commercially Pure Titanium (T40). Materials Science Forum, 2004, 467-470, 441-446.	0.3	16
90	Experimental Investigations of Recrystallization Texture Development in Zirconium (Zr702). Materials Science Forum, 2004, 467-470, 453-458.	0.3	16

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91	Recrystallization Textures in some Hexagonal Alloys. Materials Science Forum, 2002, 408-412, 901-906.	0.3	14
92	Some Remarks about the Processing of Automatic EBSD Orientation Measurements in View of Texture Determination. Materials Science Forum, 2002, 408-412, 143-148.	0.3	5
93	Evolution of recrystallisation texture and microstructure in low alloyed titanium sheets. Acta Materialia, 2002, 50, 1245-1259.	7.9	160
94	Crystalline quality of highly oriented diamond films grown on ã€˜100ã€‰ silicon studied by conventional TEM. Diamond and Related Materials, 1997, 6, 41-47.	3.9	14
95	Spatial distribution of stacking faults and microtwins in isolated crystals and textured diamond films. Diamond and Related Materials, 1996, 5, 1532-1535.	3.9	5
96	EBSD Coupled to SEM <i>In Situ</i> Annealing as a Tool to Identify Recrystallization Mechanisms - Application to Zr and Ta Alloys. Materials Science Forum, 0, 715-716, 486-491.	0.3	0
97	Formation of Annealing Twins during Recrystallization and Grain Growth in 304L Austenitic Stainless Steel. Materials Science Forum, 0, 753, 113-116.	0.3	54
98	Advances in Level-Set Modeling of Recrystallization at the Polycrystal Scale - Development of the Digi-<i>Î¼</i> Software. Key Engineering Materials, 0, 651-653, 617-623.	0.4	7
99	Textures in HCP Titanium and Zirconium: Influence of Twinning. Ceramic Transactions, 0, , 461-472.	0.1	1
100	On the Stability of Recrystallization Textures in Low Alloyed Zirconium Sheets. Ceramic Transactions, 0, , 429-436.	0.1	0