SÃ©bastien Y P Allain

List of Publications by Year
in descending order

49 papers	3,113 citations	257357 24 h-index	214721 47 g-index
50 all docs	50 docs citations	50 times ranked	2009 citing authors

#	Article	IF	Citations
1	Dual-Phase Steels: The First Family of Advanced High Strength Steels. , 2022, , 37-62.		3
2	Martensite and nanobainite transformations in a low alloyed steel studied by in situ high energy synchrotron diffraction. Materials Characterization, 2022, 185, 111740.	1.9	5
3	Dislocation densities in a low-carbon steel during martensite transformation determined by in situ high energy X-Ray diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 800, 140249.	2.6	46
4	Intercritical annealing of cold-rolled ferrite-pearlite steel: Microstructure evolutions and phase transformation kinetics. Acta Materialia, 2021, 212, 116920.	3.8	24
5	Recovery of severely deformed ferrite studied by in situ high energy X-ray diffraction. Materials Characterization, 2021, 179, 111378.	1.9	3
6	Carbide-Free Bainite Transformations Above and Below Martensite Start Temperature Investigated by In-Situ High-Energy X-Ray Diffraction. Jom, 2021, 73, 3181-3194.	0.9	12
7	In Situ Determination of Phase Stress States in an Unstable Medium Manganese Duplex Steel Studied by High-Energy X-ray Diffraction. Metals, 2020, 10, 1335.	1.0	11
8	A Physics-Based Mean-Field Model for Ferrite Recovery and Recrystallization. Metals, 2020, 10, 622.	1.0	5
9	Carbon heterogeneities in austenite during Quenching & Partitioning (Q&P) process revealed by in situ High Energy X-Ray Diffraction (HEXRD) experiments. Scripta Materialia, 2020, 181, 108-114.	2.6	9
10	The Influence of Vanadium Additions on Isothermally Formed Bainite Microstructures in Medium Carbon Steels Containing Retained Austenite. Metals, 2020, 10, 392.	1.0	13
11	Microstructure Evolution and Competitive Reactions during Quenching and Partitioning of a Model Feâ€“Câ€“Mnâ€“Si Alloy. Metals, 2020, 10, 137.	1.0	14
12	Microstructure-based behavior law for globular pearlitic steels. Journal of Materials Research and Technology, 2019, 8, 3373-3376.	2.6	9
13	Quantitative Assessment of the Time to End Bainitic Transformation. Metals, 2019, 9, 925.	1.0	14
14	Real-Time Investigation of Recovery, Recrystallization and Austenite Transformation during Annealing of a Cold-Rolled Steel Using High Energy X-ray Diffraction (HEXRD). Metals, 2019, 9, 8.	1.0	8
15	Evolution of cementite composition along the processing of cold-rolled and annealed Dual-Phase steels. Materialia, 2019, 6, 100179.	1.3	8
16	Hot Forming of Ultra-Fine-Grained Multiphase Steel Products Using Press Hardening Combined with Quenching and Partitioning Process. Metals, 2019, 9, 357.	1.0	7
17	Alloying-element interactions with austenite/martensite interface during quenching and partitioning of a model Fe-C-Mn-Si alloy. Scripta Materialia, 2019, 162, 181-184.	2.6	23
18	Micromechanical behavior and thermal stability of a dual-phase Î±+Î±â€™ titanium alloy produced by additive manufacturing. Acta Materialia, 2019, 162, 149-162.	3.8	133

#	ARTICLE	IF	CITATIONS
19	Numerical Investigations of the Effects of Substitutional Elements on the Interface Conditions During Partitioning in Quenching and Partitioning Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2568-2572.	1.1	2
20	Internal stresses and carbon enrichment in austenite of Quenching and Partitioning steels from high energy X-ray diffraction experiments. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 245-250.	2.6	58
21	Key Parameters to Promote Granularization of Lath-Like Bainite/Martensite in FeNiC Alloys during Isothermal Holding. Materials, 2018, 11, 1808.	1.3	3
22	In Situ Investigation of the Iron Carbide Precipitation Process in a Fe-C-Mn-Si Q&P Steel. Materials, 2018, 11, 1087.	1.3	31
23	New insights into martensite strength and the damage behaviour of dual phase steels. Acta Materialia, 2018, 159, 112-122.	3.8	36
24	Quantitative assessment of carbon allocation anomalies in low temperature bainite. Acta Materialia, 2017, 133, 333-345.	3.8	56
25	In-situ investigation of quenching and partitioning by High Energy X-Ray Diffraction experiments. Scripta Materialia, 2017, 131, 15-18.	2.6	52
26	Structure-properties relationship of ultra-fine grained V-microalloyed dual phase steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 703, 293-303.	2.6	42
27	Effects of Q&P Processing Conditions on Austenite Carbon Enrichment Studied by In Situ High-Energy X-ray Diffraction Experiments. Metals, 2017, 7, 232.	1.0	32
28	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
29	Relationship between Microstructure, Mechanical Properties and Damage Mechanisms in High Martensite Fraction Dual Phase Steels. ISIJ International, 2015, 55, 2237-2246.	0.6	41
30	Towards the microstructure design of DP steels: A generic size-sensitive mean-field mechanical model. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 637, 222-234.	2.6	38
31	The Bauschinger effect in drawn and annealed nanocomposite Cuâ€“Nb wires. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 10-19.	2.6	20
32	Static and dynamical ageing processes at room temperature in a Fe25Ni0.4C virgin martensite: effect of C redistribution at the nanoscale. Philosophical Magazine Letters, 2013, 93, 68-76.	0.5	23
33	Compression of crumpled aluminum thin foils and comparison with other cellular materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 570, 1-7.	2.6	46
34	Characterization and Modeling of Manganese Effect on Strength and Strain Hardening of Martensitic Carbon Steels. ISIJ International, 2013, 53, 1076-1080.	0.6	44
35	Exploring Carbide-Free Bainitic Structures for Hot Dip Galvanizing Products. ISIJ International, 2013, 53, 1253-1259.	0.6	11
36	Toward a New Interpretation of the Mechanical Behaviour of As-quenched Low Alloyed Martensitic Steels. ISIJ International, 2012, 52, 717-722.	0.6	58

#	ARTICLE	IF	CITATIONS
37	Kinetics of bainite transformation in heterogeneous microstructures. Materials Letters, 2012, 67, 187-189.	1.3	9
38	High manganese austenitic twinning induced plasticity steels: A review of the microstructure properties relationships. Current Opinion in Solid State and Materials Science, 2011, 15, 141-168.	5.6	1,134
39	Microstructure â€“ Properties Relationships in Carbide-free Bainitic Steels. ISIJ International, 2011, 51, 1724-1732.	0.6	68
40	Modelling the effect of carbon on deformation behaviour of twinning induced plasticity steels. Journal of Materials Science, 2011, 46, 7410-7414.	1.7	48
41	Effect of chemical composition on work hardening of Feâ€”Mnâ€”C TWIP steels. Materials Science and Technology, 2011, 27, 707-709.	0.8	132
42	EBSD study of the substructure development with cold deformation of dual phase steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 947-953.	2.6	36
43	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.	2.6	404
44	An improved physically based behaviour law for ferritic steels and its application to crash modelling. International Journal of Material Forming, 2009, 2, 527-530.	0.9	5
45	On the mechanism of unstable plastic flow in an austenitic FeMnC TWIP steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 519, 147-154.	2.6	86
46	On measurement of retained austenite in multiphase TRIP steels â€” results of blind round robin test involving six different techniques. Materials Science and Technology, 2009, 25, 567-574.	0.8	75
47	Microstructure based modeling for the mechanical behavior of ferriteâ€“pearlite steels suitable to capture isotropic and kinematic hardening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 329-336.	2.6	82
48	The influence of plastic instabilities on the mechanical properties of a high-manganese austenitic FeMnC steel. International Journal of Materials Research, 2008, 99, 734-738.	0.1	71
49	Effect of Grain Refinement on the Mechanical Behaviour of Ferritic Steels: Evolution of Isotropic Hardening and Kinematic Hardening. Materials Science Forum, 0, 584-586, 605-609.	0.3	17