

Bruno Charles De Cooman

List of Publications by Year in descending order

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76
papers

5,054
citations

109321

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88630

70
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79
all docs

79
docs citations

79
times ranked

2250
citing authors

#	ARTICLE	IF	CITATIONS
1	Twinning-induced plasticity (TWIP) steels. Acta Materialia, 2018, 142, 283-362.	7.9	963
2	On the origin of dynamic strain aging in twinning-induced plasticity steels. Acta Materialia, 2011, 59, 6809-6819.	7.9	292
3	Microstructure-mechanical properties relationships for quenching and partitioning (Q&P) processed steel. Acta Materialia, 2016, 113, 124-139.	7.9	268
4	On the Selection of the Optimal Intercritical Annealing Temperature for Medium Mn TRIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5018-5024.	2.2	196
5	Effect of Al on the stacking fault energy of Fe-18Mn-0.6C twinning-induced plasticity. Scripta Materialia, 2011, 65, 363-366.	5.2	175
6	Micromechanical finite element analysis of strain partitioning in multiphase medium manganese TWIP+TRIP steel. Acta Materialia, 2016, 108, 219-228.	7.9	165
7	State-of-the-Knowledge on Coating Systems for Hot Stamped Parts. Steel Research International, 2012, 83, 412-433.	1.8	158
8	Temperature dependence of the flow stress of Fe-18Mn-0.6C-xAl twinning-induced plasticity steel. Acta Materialia, 2013, 61, 6724-6735.	7.9	130
9	Kinetics of the partitioning of carbon and substitutional alloying elements during quenching and partitioning (Q&P) processing of medium Mn steel. Acta Materialia, 2016, 107, 354-365.	7.9	115
10	Tensile Behavior of Intercritically Annealed 10% Mn Multi-phase Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 709-716.	2.2	111
11	Constitutive Modeling of the Mechanical Properties of V-added Medium Manganese TRIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3136-3146.	2.2	101
12	Liquid-Metal-Induced Embrittlement of Zn-Coated Hot Stamping Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 5122-5127.	2.2	99
13	Effect of the Strain Rate on the TRIP-TWIP Transition in Austenitic Fe-12% Mn-0.6% C TWIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 717-730.	2.2	98
14	Quenching and Partitioning (Q&P) Processing of Martensitic Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 946-967.	2.2	95
15	Size and orientation effects in partial dislocation-mediated deformation of twinning-induced plasticity steel micro-pillars. Acta Materialia, 2015, 98, 391-404.	7.9	95
16	Application of Quenching and Partitioning Processing to Medium Mn Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 27-31.	2.2	94
17	Annealing Temperature Dependence of the Tensile Behavior of 10% Mn Multi-phase TWIP-TRIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 6039-6052.	2.2	92
18	Observation of the TWIP+TRIP Plasticity-Enhancement Mechanism in Al-Added 6% Mn Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2356-2363.	2.2	90

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19	Zn Penetration in Liquid Metal Embrittled TWIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 2885-2905.	2.2	84
20	Transmission Electron Microscopy Analysis of Yielding in Ultrafine-Grained Medium Mn Transformation-Induced Plasticity Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 2563-2572.	2.2	78
21	Application of Quenching and Partitioning (Q&P) Processing to Press Hardening Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 4022-4037.	2.2	74
22	Application of a Dislocation Density-Based Constitutive Model to Al-Alloyed TWIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 4168-4182.	2.2	71
23	Near-Ac3 austenitized ultra-fine-grained quenching and partitioning (Q&P) steel. <i>Scripta Materialia</i> , 2016, 123, 69-72.	5.2	70
24	Effect of the Intercritical Annealing Temperature on the Mechanical Properties of 10ÅPct Mn Multi-phase Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5009-5016.	2.2	61
25	Tensile Properties of Medium Mn Steel with a Bimodal UFG Î±+Î³ and Coarse Î´-Ferrite Microstructure. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 1678-1700.	2.2	61
26	Observation of an Isothermal Transformation during Quenching and Partitioning Processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009, 40, 2048-2060.	2.2	55
27	Effect of Cu addition on the mechanical behavior of austenitic twinning-induced plasticity steel. <i>Scripta Materialia</i> , 2011, 65, 1073-1076.	5.2	52
28	Constitutive Modeling of the Tensile Behavior of Al-TWIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 479-490.	2.2	52
29	Liquid-Metal-Induced Embrittlement Related Microcrack Propagation on Zn-coated Press Hardening Steel. <i>ISIJ International</i> , 2015, 55, 264-271.	1.4	47
30	Influence of Gas Atmosphere Dew Point on the Selective Oxidation and the Reactive Wetting During Hot Dip Galvanizing of CMnSi TRIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 362-371.	2.2	46
31	Micro-plasticity of medium Mn austenitic steel: Perfect dislocation plasticity and deformation twinning. <i>Acta Materialia</i> , 2017, 135, 112-123.	7.9	46
32	Combined Intercritical Annealing and Q&P Processing of Medium Mn Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 39-45.	2.2	46
33	Tensile Behavior of Intercritically Annealed Ultra-Fine Grained 8% Mn Multi-Phase Steel. <i>Steel Research International</i> , 2015, 86, 1170-1178.	1.8	45
34	Microstructure of Low C Steel Isothermally Transformed in the M S to M f Temperature Range. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 4967-4983.	2.2	40
35	Effect of quenching temperature on stretch flangeability of a medium Mn steel processed by quenching and partitioning. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 729, 276-284.	5.6	39
36	Surface Selective Oxidation of Sn-Added CMnSi TRIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 1705-1719.	2.2	36

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37	Influence of Minor Alloying Elements on Selective Oxidation and Reactive Wetting of CMnSi TRIP Steel during Hot Dip Galvanizing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4484-4498.	2.2	34
38	Selective Oxidation of TWIP Steel During Continuous Annealing. Steel Research International, 2012, 83, 391-397.	1.8	33
39	Influence of Carbide Precipitation and Dissolution on the Microstructure of Ultra-Fine-Grained Intercritically Annealed Medium Manganese Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3263-3270.	2.2	33
40	Analysis of the Tensile Behavior of 12Åpct Mn Multi-phase ($\bar{I}+\bar{A}+\bar{A}^3$) TWIP+TRIP Steel by Neutron Diffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2125-2140.	2.2	32
41	Ridging Control in Transformable Ferritic Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 228-244.	2.2	31
42	Hot Deformation Behavior of V Micro-Alloyed TWIP Steel During Hot Compression. Metals and Materials International, 2019, 25, 594-605.	3.4	31
43	Influence of the Initial Microstructure on the Spheroidization of SAE 52100 Bearing Steel. Steel Research International, 2016, 87, 112-125.	1.8	30
44	Internal-friction analysis of dislocation-interstitial carbon interactions in press-hardened 22MnB5 steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 439-447.	5.6	27
45	On the Transition of Internal to External Selective Oxidation on CMnSi TRIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5158-5172.	2.2	26
46	Influence of Al on internal friction spectrum of Fe-18Mn-0.6C twinning-induced plasticity steel. Scripta Materialia, 2012, 66, 729-732.	5.2	25
47	Effect of Boron on the Isothermal Bainite Transformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1686-1705.	2.2	25
48	Microstructure evolution of a 55wt.% Al-Zn coating on press hardening steel during rapid heating. Surface and Coatings Technology, 2015, 281, 35-43.	4.8	25
49	Characterization of the Bendability of Press-Hardened 22MnB5 Steel. Steel Research International, 2014, 85, 824-835.	1.8	24
50	Modified Methodology for the Quench Temperature Selection in Quenching and Partitioning (Q&P) Processing of Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3797-3802.	2.2	23
51	Influence of Gas Atmosphere Dew Point on the Galvannealing of CMnSi TRIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5081-5095.	2.2	22
52	Microstructural Evolution and Crystallographic Texture Formation of Cold Rolled Austenitic Fe-30Mn-3Al-3Si TWIP Steel. Steel Research International, 2003, 74, 370-375.	1.8	21
53	Surface Oxide Formation during Rapid Heating of Zn-coated Press Hardening Steel. ISIJ International, 2014, 54, 2364-2368.	1.4	20
54	Impulse Excitation Internal Friction Study of Dislocation and Point Defect Interactions in Ultra-Low Carbon Bake-Hardenable Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1962-1978.	2.2	19

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55	Constituent-specific properties in quenching and partitioning (Q&P) processed steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 740-741, 439-444.	5.6	19
56	Dilatometric Analysis of Anisotropic Dimensional Changes in a 16% Cr Stainless Steel with a Planar Banded Structure. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 1429-1440.	2.2	18
57	Kirkendall Void Formation During Selective Oxidation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 2180-2183.	2.2	18
58	Selective Oxidation and Subsurface Phase Transformation of TWIP Steel during Continuous Annealing. <i>Steel Research International</i> , 2011, 82, 1310-1318.	1.8	17
59	The Effect of Bi on the Selective Oxide Formation on CMnSi TRIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 5474-5486.	2.2	17
60	Constitutive Modeling of the Stacking Fault Energy-Dependent Deformation Behavior of Fe-Mn-C-(Al) TWIP Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5919-5924.	2.2	15
61	Microstructural Evolution of the 55% Al-Zn Coating During Press Hardening. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 4499-4509.	2.2	14
62	Analysis of the Plasticity-Enhancing Mechanisms in 12% Mn Austeno-ferritic Steel by In Situ Neutron Diffraction. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5823-5828.	2.2	13
63	Focused ion beam-induced displacive phase transformation from austenite to martensite during fabrication of quenched and partitioned steel micro-pillar. <i>Journal of Alloys and Compounds</i> , 2020, 812, 152061.	5.5	13
64	Influence of Intra-granular Ferrite on the Tensile Behavior of Intercritically Annealed 12% Mn TWIP+TRIP Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 1012-1018.	2.2	11
65	Solidification Microsegregation and Hot Ductility of Fe-Mn-C-Al-xNb TWIP Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5509-5523.	2.2	11
66	Mechanical Properties of H-charged Fe-18Mn-1.5Al-0.6C TWIP Steel. <i>ISIJ International</i> , 2012, 52, 1670-1677.	1.4	10
67	Three-dimensional Visualization of the Magnetic Microstructure in Bulk Fe-6.6 Pct Si. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 4239-4247.	2.2	8
68	Mg Content Dependence of EML-PVD Zn-Mg Coating Adhesion on Steel Strip. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 4594-4605.	2.2	8
69	TiN/NbC Compound Particle Formation during Thin Slab Direct Rolling of HSLA Steel. <i>Steel Research International</i> , 2014, 85, 1158-1172.	1.8	7
70	Surface Selective Oxide Reduction During the Intercritical Annealing of Medium Mn Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 3635-3641.	2.2	6
71	Development of a Press-Hardened Steel Suitable for Thin Slab Direct Rolling Processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 456-466.	2.2	4
72	Direct Resistance Joule Heating of Al-10% Si-Coated Press Hardening Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 2875-2884.	2.2	4

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73	Creep-Induced Microstructure Evolution of Type 2205 Duplex Stainless Steel during Continuous Annealing Processing. <i>Steel Research International</i> , 2014, 85, 756-770.	1.8	2
74	Analysis of the Mechanical Properties of N-Added CMn Structural Steel by the Impulse Internal Friction Technique. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 4587-4600.	2.2	1
75	Impulse Excitation Internal Friction Study of Retained Austenite in Ferrous Martensite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5235-5240.	2.2	1
76	Effect of Vanadium on the Hot Deformation Behavior of Vanadium-Microalloyed Steel for Thin Slab Direct Rolling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 3649-3663.	2.2	0