Ignacio Mejia

List of Publications by Citations

73 papers	951 citations	18 h-index	29 g-index
75 ext. papers	1,096 ext. citations	2.7 avg, IF	4.38 L-index

#	Paper	IF	Citations
73	The effect of titanium on the wear behaviour of a 16%Cr white cast iron under pure sliding. *Wear*, **2007**, 263, 808-820	3.5	68
72	Determination of the critical conditions for the initiation of dynamic recrystallization in boron microalloyed steels. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 4133-4140	5.3	64
71	Hot ductility behavior of boron microalloyed steels. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 460-461, 464-470	5.3	56
70	Hot ductility behavior of high-Mn austenitic Fe22Mn1.5Al1.5Si0.45C TWIP steels microalloyed with Ti and V. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 611, 77-89	5.3	54
69	Hot deformation activation energy (QHW) of austenitic Fe22Mn1.5Al1.5Si0.4C TWIP steels microalloyed with Nb, V, and Ti. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 562, 46-52	5.3	53
68	Effect of microalloying elements (Nb, V and Ti) on the hot flow behavior of high-Mn austenitic twinning induced plasticity (TWIP) steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 560, 552-560	5.3	53
67	Hot ductility behavior of a low carbon advanced high strength steel (AHSS) microalloyed with boron. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 4468-4474	5.3	51
66	Hot flow behavior of boron microalloyed steels. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 480, 49-55	5.3	46
65	Abrasive wear of VNbTi alloyed high-chromium white irons. *Wear*, **2015**, 332-333, 1006-1011	3.5	43
64	Effect of Nb and Mo on the hot ductility behavior of a high-manganese austenitic Fe21Mn1.3Al1.5Si0.5C TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 616, 229-239	5.3	42
63	Effect of boron on the sliding wear of directionally solidified high-chromium white irons. *Wear*, **2009**, 267, 495-504	3.5	35
62	Effect of Ti and B microadditions on the hot ductility behavior of a High-Mn austenitic Fe23Mn1.5Al1.3Si0.5C TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 648, 311-329	5.3	28
61	Sliding wear behavior of austempered ductile iron microalloyed with boron. *Wear*, **2015**, 330-331, 23-31	3.5	25
60	Sliding wear behavior of a high-Mn austenitic twinning induced plasticity (TWIP) steel microalloyed with Nb. *Wear*, **2013**, 301, 590-597	3.5	25
59	Effects of tungsten on the microstructure and on the abrasive wear behavior of a high-chromium white iron. *Wear*, **2017**, 376-377, 77-85	3.5	24
58	Modeling the hot flow behavior of a Fe22Mn0.41C1.6Al1.4Si TWIP steel microalloyed with Ti, V and Nb. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 644, 374-385	5.3	21
57	Nanoparticle and Intermetallic Formation in Dissimilar Friction Welds Produced with Silver Interlayers. *Microscopy and Microanalysis*, **2004**, 10, 568-569	0.5	20

56	The Role of Silicon in the Solidification of High-Cr Cast Irons. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 856-872	2.3	18
55	Modeling of the hot flow behavior of advanced ultra-high strength steels (A-UHSS) microalloyed with boron. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 610, 116-125	5.3	18
54	Modeling of the hot deformation behavior of boron microalloyed steels under uniaxial hot-compression conditions. *International Journal of Materials Research*, **2008**, 99, 1336-1345	0.5	18
53	Effects of boron addition and austempering time on microstructure, hardness and tensile properties of ductile irons. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 648, 193-201	5.3	17
52	Effect of Boron on the Hot Ductility Behavior of a Low Carbon Advanced Ultra-High Strength Steel (A-UHSS). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013** , 44, 5165-5176	2.3	14
51	Effect of V on Hot Deformation Characteristics of TWIP Steels. *Steel Research International*, **2012**, 83, 334-339	1.6	12
50	FE thermo-mechanical simulation of welding residual stresses and distortion in Ti-containing TWIP steel through GTAW process. *Journal of Manufacturing Processes*, **2020**, 59, 801-815	5	12
49	Effect of boron on microstructure of directionally solidified high chromium white irons. *International Journal of Cast Metals Research*, **2011**, 24, 37-44	1	10
48	Boron effect on the precipitation of secondary carbides during destabilization of a high-chromium white iron. *International Journal of Cast Metals Research*, **2016**, 29, 55-61	1	9
47	Experimental and FEM study of Ti-containing TWIP steel weldability. *Journal of Materials Processing Technology*, **2018**, 261, 107-122	5.3	9
46	Niobium Additions to a 15%Cr3%C White Iron and Its Effects on the Microstructure and on Abrasive Wear Behavior. *Metals*, **2019**, 9, 1321	2.3	9
45	Quantitative metallographic characterization of welding microstructures in Ti-containing TWIP steel by means of image processing analysis. *Materials Characterization*, **2019**, 147, 1-10	3.9	9
44	Improved thermal FE numerical model/DoE based on the Taguchi method to estimate weld penetration/energy and non-metallic inclusions: a case study in Ti-containing TWIP steel butt joints. *International Journal of Advanced Manufacturing Technology*, **2019**, 105, 101-120	3.2	7
43	Characterization of resistance spot welded transformation induced plasticity (TRIP) steels with different silicon and carbon contents. *Journal of Manufacturing Processes*, **2018**, 32, 307-317	5	7
42	Comparative study on weldability of Ti-containing TWIP and AISI 304L austenitic steels through the autogenous-GTAW process. *International Journal of Advanced Manufacturing Technology*, **2018**, 98, 2365-2376	3.2	6
41	Effect of the simultaneous Ti and W addition on the microstructure and wear behavior of a high chromium white cast iron. *Metallurgical Research and Technology*, **2019**, 116, 602	0.9	6
40	High resistance boron treated steels for railway applications. *Materials Science and Technology*, **2009**, 25, 361-368	1.5	6
39	Effect of rare-earth metals on the hot strength of HSLA steels. *International Journal of Materials Research*, **2002**, 93, 1132-1139		5

38	Microstructural modification of a static and dynamically solidified high chromium white cast iron alloyed with vanadium. *Results in Materials*, **2020**, 7, 100114	2.3	4
37	Role of Titanium, Carbon, Boron, and Zirconium in Carbide and Porosity Formation during Equiaxed Solidification of Nickel-Based Superalloys. *Journal of Materials Engineering and Performance*, **2019**, 28, 4171-4186	1.6	4
36	Effect of retained austenite and nonmetallic inclusions on the thermal/electrical properties and resistance spot welding nuggets of Si-containing TRIP steels. *International Journal of Minerals, Metallurgy and Materials*, **2019**, 26, 52-63	3.1	4
35	Characterization of the Gas Tungsten Arc Welding (GTAW) joint of Armco iron nanostructured by Equal-Channel Angular Pressing (ECAP). *Journal of Materials Processing Technology*, **2021**, 288, 116902	5.3	4
34	Effect of Load and Sliding Rate on the Wear Behavior of Ti-Containing TWIP Steel. *Journal of Materials Engineering and Performance*, **2017**, 26, 2213-2225	1.6	3
33	Two-dimensional Monte Carlo–Voronoi simulation of grain growth and nucleation in the heat affected zone of TWIP-Ti welds. *Materialia*, **2019**, 5, 100223	3.2	3
32	Effect of boron on the continuous cooling transformation kinetics in a low carbon advanced ultra-high strength steel (A-UHSS). *Materials Research Society Symposia Proceedings*, **2012**, 1485, 83-88		3
31	Dry Sliding Wear Behavior of a High-Mn Austenitic Twinning Induced Plasticity (TWIP) Steel Microalloyed with Ti. *Materials Research Society Symposia Proceedings*, **2015**, 1765, 59-64		2
30	Weldability of High-Mn Austenitic Twinning-Induced Plasticity (TWIP) Steel Microalloyed with Nb. *MRS Advances*, **2017**, 2, 3899-3908	0.7	2
29	Can Young's Modulus of Metallic Alloys Change with Plastic Deformation?. *Materials Science Forum*, **2014**, 783-786, 2382-2387	0.4	2
28	Mechanical properties and microstructure of low carbon ultra-high strength steels (UHSS) microalloyed with boron. *Materials Research Society Symposia Proceedings*, **2012**, 1373, 89		2
27	Effect of Microalloying Elements (B, Nb, V and Ti) on the Strain Hardening Behavior of High-Manganese TWIP Steels. *Materials Research Society Symposia Proceedings*, **2012**, 1373, 83		2
26	Ab Initio Study of Weldability of a High-Manganese Austenitic Twinning-Induced Plasticity (TWIP) Steel Microalloyed with Boron. *Materials Research Society Symposia Proceedings*, **2016**, 1812, 35-40		2
25	Effect of amount and distribution of primary TiC on the wear behavior of a 12%Cr–3%C white iron under dry sliding conditions. *Wear*, **2021**, 476, 203718	3.5	2
24	Microstructural and Mechanical Characterization of Ti-Containing Twinning-Induced Plasticity Steel Welded Joint Produced by Gas Tungsten Arc Welding Process. *Steel Research International*, **2020**, 91, 2000129	1.6	1
23	The role of chromium during austempering of ductile iron. *Metallurgical Research and Technology*, **2020**, 117, 104	0.9	1
22	Metallographic, structural and mechanical characterization of low-density austenitic Fe-Mn-Al-C steels microalloyed with Ti/B and Ce/La in hot-rolling condition. *MRS Advances*, **2019**, 4, 3087-3095	0.7	1
21	Microstructure and Crystallographic Texture Development of Microalloyed Twinning Induced Plasticity (TWIP) Steels Under Uniaxial Hot-Tensile Conditions. *Materials Research Society Symposia Proceedings*, **2015**, 1765, 103-108		1

20	Wear Resistance under Non-Lubricated Condition of Nb-Containing TWIP Steel. *MRS Advances*, **2017**, 2, 3765-3771	0.7	1
19	Dynamically recrystallized austenitic grain in a low carbon advanced ultra-high strength steel (A-UHSS) microalloyed with boron under hot deformation conditions. *Materials Research Society Symposia Proceedings*, **2012**, 1485, 143-148		1
18	Thermo-mechanical-microstructural simulation of double-pass welding process in a TWIP steel by FE formulation and probabilistic model. *International Journal of Advanced Manufacturing Technology*, **2020**, 111, 1115-1134	3.2	1
17	Effect of Ti Microaddition on Cavitation Behavior During Uniaxial Hot-Tensile of Fe-22Mn-1.5Al-1.3Si-0.5C Austenitic TWIP Steel. *Materials Research Society Symposia Proceedings*, **2016**, 1812, 123-128		1
16	Metallographic, Structural and Mechanical Characterization of a Low Density Fe-Mn-Al-C Steel Microalloyed with Ti/B in As-Cast and Homogenized Conditions. *MRS Advances*, **2018**, 3, 3971-3978	0.7	1
15	Metallographic, Structural and Mechanical Characterization of REM-Containing Fe-30Mn-8Al-1.8C Low Density Steel in As-Cast Condition. *MRS Advances*, **2018**, 3, 3957-3962	0.7	1
14	Metallographic, Structural, and Mechanical Characterization of Weld Nuggets in Fe-Mn-Al-C Low-Density Steels Microalloyed with Ti/B and Ce/La by Gas Tungsten Arc Welding Process. *Steel Research International*,2100229	1.6	1
13	Transmission Electron Microscopy Characterization and High-Resolution Modeling of Second-Phase Particles of V- and Ti-Containing Twinning-Induced Plasticity Steel under Uniaxial Hot-Tensile Condition. *Steel Research International*, **2019**, 90, 1900098	1.6	0
12	Metallographic Characterization of a Ti-Containing Low-Density Fe-Mn-Al-C Steel in As-Cast Condition. *Materials Research Society Symposia Proceedings*, **2016**, 1812, 47-52		0
11	Microstructural and Mechanical Characterization of Autogenous GTAW Weld in High-Manganese Austenitic Steel Ti-Containing with Thermal Analysis. *MRS Advances*, **2018**, 3, 3963-3969	0.7	0
10	Advanced Ultra-High Strength Steel (A-UHSS): Boron-Containing **2016**, 100-106		
9	Influence of Boron on the Precipitation Kinetics in Advanced Ultra-High Strength Steels. *Materials Research Society Symposia Proceedings*, **2015**, 1765, 91-96		
8	Boron Effect on the Softening Parameter (of Advanced Ultra-High Strength Steels (A-UHSS) under Uniaxial Hot-Compression Conditions. *Materials Research Society Symposia Proceedings*, **2015**, 1765, 97-102		
7	Effect of the Heat Input on the Heat Affected Zone in the Austenitic Stainless Steel Welding by the GTAW Process-An Experimental and Computational Analysis. *MRS Advances*, **2017**, 2, 3781-3786	0.7	
6	Influence of Nb Microaddition on Microstructure and Texture Evolution in a Fe-21Mn-1.3Al-1.5Si-0.5C TWIP Steel under Uniaxial Hot-Tensile Conditions. *MRS Advances*, **2017**, 2, 3797-3803	0.7	
5	Hot deformation behavior of low carbon advanced high strength steel (AHSS) microalloyed with boron. *Materials Research Society Symposia Proceedings*, **2009**, 1243, 1		
4	Single scratch abrasive wear resistance of a 12%CR %C white iron alloyed with different titanium amounts. *MRS Advances*,1	0.7	
3	Vanadium Additions to a High-Cr White Iron and its Effects on the Abrasive Wear Behavior.. *MRS Advances*, **2020**, 5, 3077-3089	0.7	

2	Determination of Critical Stress for Dynamic Recrystallization of a High-Mn Austenitic TWIP Steel Micro-Alloyed with Vanadium. *Materials Research Society Symposia Proceedings*, **2016**, 1812, 41-46	
1	Heat Input Effect on the Microstructure of Twinning-Induced Plasticity (TWIP) Steel Welded Joints Through the GTAW Process. *MRS Advances*, **2018**, 3, 3949-3956	0.7