C R GonzÃ¡lez

List of Publications by Year
in descending order

42 papers	370 citations	840776 11 h-index	839539 18 g-index
48 all docs	48 docs citations	48 times ranked	268 citing authors

#	Article	IF	Citations
1	Optimizing the Performance of a Dualâ€Injection Gasâ€Stirred Ladle Using Physical Modeling. Steel Research International, 2022, 93, .	1.8	4
2	Experimental Study of Mass Transfer Mechanisms for Solute Mixing in a Gasâ€Stirred Ladle Using the Particle Image Velocimetry and Planar Laserâ€Induced Fluorescence Techniques. Steel Research International, 2021, 92, 2100241.	1.8	6
3	Determination of the latent heat of fusion and solid fraction evolution of metals and alloys by an improved cooling curve analysis method. Journal of Thermal Analysis and Calorimetry, 2020, 140, 1825-1836.	3.6	2
4	Numerical Modeling of Equal and Differentiated Gas Injection in Ladles: Effect on Mixing Time and Slag Eye. Processes, 2020, 8, 917.	2.8	11
5	Utilization of the Planar Laser-Induced Fluorescence Technique (PLIF) to Measure Temperature Fields in a Gas-Stirred Ladle. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 2510-2521.	2.1	7
6	Introducing the Planar Laser-Induced Fluorescence Technique (PLIF) to Measure Mixing Time in Gas-Stirred Ladles. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 2121-2133.	2.1	18
7	Effect of Differentiated Injection Ratio, Gas Flow Rate, and Slag Thickness on Mixing Time and Open Eye Area in Gas-Stirred Ladle Assisted by Physical Modeling. Metals, 2019, 9, 555.	2.3	12
8	A Novel Multiphase Methodology Simulating Three Phase Flows in a Steel Ladle. Processes, 2019, 7, 175.	2.8	7
9	Experimental measurements of bubble size distributions in a water model and its influence on the aluminum kinetics degassing. Canadian Journal of Chemical Engineering, 2019, 97, 1729-1740.	1.7	6
10	Optimizing gas stirred ladles by physical modeling and PIV measurements. Materials and Manufacturing Processes, 2018, 33, 882-890.	4.7	20
11	Comparison of the hydrodynamic performance of rotor-injector devices in a water physical model of an aluminum degassing ladle. Chemical Engineering Research and Design, 2017, 118, 158-169.	5.6	27
12	Physical and Mathematical Modeling of Metal-Slag Exchanges in Gas-Stirred Ladles. MRS Advances, 2017, 2, 3821-3829.	0.9	1
13	Effect of the Impeller Design on Degasification Kinetics Using the Impeller Injector Technique Assisted by Mathematical Modeling. Metals, 2017, 7, 132.	2.3	21
14	Impeller design assisted by physical modeling and pilot plant trials. Journal of Materials Processing Technology, 2016, 236, 1-8.	6.3	23
15	Experimental and Theoretical Study on Melting Kinetics of Spherical Aluminum Particles in Liquid Aluminum. Materials Research Society Symposia Proceedings, 2015, 1765, 139-144.	0.1	0
16	Experimental determination of the grain growth kinetics during solidification of eutectic Al-Ni alloy using a simplified mathematical procedure. AIP Conference Proceedings, 2015, , .	0.4	0
17	Experimental and theoretical study on melting kinetics of spherical aluminum particles in liquid aluminum. AIP Conference Proceedings, 2015, , .	0.4	0
18	Effect of Process Variables on Kinetics and Gas Consumption in Rotor-Degassing Assisted by Physical and Mathematical Modeling. Materials and Manufacturing Processes, 2015, 30, 216-221.	4.7	10

#	Article	IF	Citations
19	Mathematical Model of the melting of DRI in a slag melt. Materials Research Society Symposia Proceedings, 2014, 1611, 139-144.	0.1	0
20	Mathematical modeling of aluminum degassing by the impeller injector technique validated by a physical modeling. Materials Research Society Symposia Proceedings, 2014, 1611, 49-54.	0.1	3
21	Mathematical modeling of the fluid flow in a mixing device for melting/dissolving solid particles in a liquid alloy. Materials Research Society Symposia Proceedings, 2014, 1611, 19-24.	0.1	0
22	Thermal and Kinetic Analysis of the solidification of a near eutectic Al-Cu Alloy. Materials Research Society Symposia Proceedings, 2014, 1611, 105-110.	0.1	0
23	Solidification kinetics of a near eutectic Al-Si alloy, unmodified and modified with Sr. Metals and Materials International, 2013, 19, 707-715.	3.4	15
24	Bismuth segregation and crack formation on a free lead yellow brass tap. Engineering Failure Analysis, 2013, 28, 63-68.	4.0	9
25	Numerical Processing of Cooling Curves to Obtain Growth Parameters During Eutectic Solidification. Materials Research Society Symposia Proceedings, 2012, 1373, 101.	0.1	0
26	On the characterization of eutectic grain growth during solidification. Materials Research Society Symposia Proceedings, 2012, 1485, 161-166.	0.1	0
27	Mathematical modeling of fluid flow in aluminum ladles for degasification with impeller - injector. , 2012, , .		0
28	Mathematical modeling of a gas jet impinging on a two phase bath. , 2012, , .		1
29	Novel Degasification Design for Aluminum Using an Impeller Degasification Water Physical Model. Materials and Manufacturing Processes, 2012, 27, 556-560.	4.7	14
30	Fourier Thermal Analysis of the Eutectic Formed in Pb-Sn Alloys. Journal of Materials Engineering and Performance, 2009, 18, 441-445.	2.5	2
31	Failure analysis for degradation of a polyethylene knee prosthesis component. Engineering Failure Analysis, 2009, 16, 1770-1773.	4.0	6
32	Mathematical Modeling of High Intensity Electric Arcs Burning in Different Atmospheres. ISIJ International, 2009, 49, 796-803.	1.4	10
33	Effect of the Presence of SiCp on Dendritic Coherency of Alâ€“Si-Based Alloys During Solidification. Materials and Manufacturing Processes, 2007, 23, 46-50.	4.7	14
34	The effect of Cu-macroalloying on $beta;-NiAl intermetallic compound obtained by mechanical alloying. Journal of Materials Processing Technology, 2003, 143-144, 551-554.	6.3	2
35	Quantification of the SiCp content in molten Alâ€“Si/SiCp composites by computer aided thermal analysis. Journal of Materials Processing Technology, 2003, 143-144, 860-865.	6.3	5
36	Effect of SiC_pcontent on cooling curve characteristics and solidification kinetics of Al-Si/SiC_pcast composites. International Journal of Cast Metals Research, 2003, 16, 531-536.	1.0	6

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37	On carbide dissolution in an as-cast ASTM F-75 alloy. Journal of Biomedical Materials Research Part B, 2002, 59, 378-385.	3.1	78
38	Microstructural characterization of (Ni, Cu) Al intermetallic compounds rapidly solidified. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 329-331, 675-679.	5.6	1
39	On the local microstructural characteristics observed in sand cast Alâ€"Si alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 279, 149-159.	5.6	12
40	Evaluation of the mechanical properties and corrosion behaviour of ultra-clean steels. Journal of Materials Processing Technology, 2000, 101, 238-244.	6.3	5
41	The Effect of Heat Transfer on Local Solidification Kinetics of Eutectic Al-Si Cast Alloy. Journal of Materials Engineering and Performance, 1999, 8, 103-110.	2.5	10
42	LATENT HEAT DETERMINATION FROM COOLING CURVES DURING SOLIDIFICATION OF METALS BY AN ALTERNATIVE METHOD CONSIDERING THE METAL AND MOLD COOLING PROCESSES. , 0, , .		1