

Carlos H Caceres

List of Publications by Year in descending order

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87888

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103
all docs

103
docs citations

103
times ranked

2367
citing authors

#	ARTICLE	IF	CITATIONS
1	Casting defects and the tensile properties of an AlSiMg alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996, 220, 109-116.	5.6	263
2	Pseudoelastic behaviour of cast magnesium AZ91 alloy under cyclic loading/unloading. <i>Acta Materialia</i> , 2003, 51, 6211-6218.	7.9	256
3	Effects of solidification rate and ageing on the microstructure and mechanical properties of AZ91 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 325, 344-355.	5.6	229
4	Damage by the cracking of silicon particles in an Al-7Si-0.4Mg casting alloy. <i>Acta Materialia</i> , 1996, 44, 25-33.	7.9	223
5	Solid solution strengthening in concentrated Mg-Al alloys. <i>Journal of Light Metals</i> , 2001, 1, 151-156.	0.8	205
6	Strain hardening behaviour and the Taylor factor of pure magnesium. <i>Philosophical Magazine</i> , 2008, 88, 977-989.	1.6	190
7	On the mechanism of strain-enhanced grain growth during superplastic deformation. <i>Acta Metallurgica</i> , 1984, 32, 1335-1345.	2.1	179
8	Damage by eutectic particle cracking in aluminum casting alloys A356/357. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 2901-2912.	2.2	163
9	The deformation and fracture behaviour of an Al ₁ -Si ₁ -Mg casting alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 197, 171-179.	5.6	161
10	The effect of Mg on the microstructure and mechanical behavior of Al-Si-Mg casting alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999, 30, 2611-2618.	2.2	152
11	Strength-Ductility Behaviour of Al-Si-Cu-Mg Casting Alloys in T6 Temper. <i>International Journal of Cast Metals Research</i> , 2003, 15, 531-543.	1.0	143
12	Reversible plastic strain during cyclic loading/unloading of Mg and Mg-Zn alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 456, 138-146.	5.6	128
13	The Strength of Concentrated Mg-Zn Solid Solutions. <i>Physica Status Solidi A</i> , 2002, 194, 147-158.	1.7	127
14	Grain Size Hardening in Mg and Mg-Zn Solid Solutions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 1950-1959.	2.2	126
15	Large strain behaviour of a superplastic copper alloy. <i>Acta Metallurgica</i> , 1984, 32, 415-422.	2.1	113
16	The influence of microstructure on the Bauschinger effect in an Al ₁ -Si ₁ -Mg casting alloy. <i>Acta Materialia</i> , 1996, 44, 15-23.	7.9	100
17	The effect of Cu content on the level of microporosity in Al-Si-Cu-Mg casting alloys. <i>Scripta Materialia</i> , 1999, 40, 631-637.	5.2	99
18	On the strain hardening behaviour of magnesium at room temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 462, 193-196.	5.6	91

#	ARTICLE	IF	CITATIONS
19	On the effect of macroporosity on the tensile properties of the Al-7%Si-0.4%Mg casting alloy. Scripta Metallurgica Et Materialia, 1995, 32, 1851-1856.	1.0	88
20	Strain hardening due to {10 $\bar{1}$ 2} twinning in pure magnesium. Philosophical Magazine, 2008, 88, 991-1003.	1.6	84
21	Microhardness mapping and the hardness-yield strength relationship in high-pressure diecast magnesium alloy AZ91. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 402, 258-268.	5.6	83
22	Creep and Creep Fracture in Hot-Pressed Alumina. Journal of the American Ceramic Society, 1991, 74, 915-921.	3.8	81
23	Hall-Petch parameters in tension and compression in cast Mg-Al-Zn alloys. Journal of Alloys and Compounds, 2004, 378, 188-191.	5.5	77
24	Solid-solution hardening and softening in Mg-Zn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 483-484, 161-163.	5.6	75
25	Serrated flow in magnesium alloy AZ91. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 22-24.	5.6	74
26	Section thickness, macrohardness and yield strength in high-pressure diecast magnesium alloy AZ91. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 402, 269-277.	5.6	72
27	Economical and Environmental Factors in Light Alloys Automotive Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1649-1662.	2.2	71
28	Large strain behaviour of a superplastic copper alloy—II. Cavitation and fracture. Acta Metallurgica, 1984, 32, 423-434.	2.1	67
29	The elastic modulus of cast Mg-Al-Zn alloys. Journal of Light Metals, 2002, 2, 49-56.	0.8	67
30	Hall-Petch Parameters for Tension and Compression in Cast Mg. Materials Science Forum, 2003, 419-422, 123-128.	0.3	62
31	Processing of Tape-Cast Laminates Prepared from Fine Alumina/Zirconia Powders. Journal of the American Ceramic Society, 1994, 77, 2145-2153.	3.8	57
32	Tape Casting of Fine Alumina/Zirconia Powders for Composite Fabrication. Journal of the American Ceramic Society, 1994, 77, 2137-2144.	3.8	53
33	Acoustic emission related to stress induced martensitic transformation in $\hat{1}^2$ Cu-Zn. Scripta Metallurgica, 1980, 14, 293-297.	1.2	51
34	An evaluation of available data for strain-enhanced grain growth during superplastic flow. Journal of Materials Science Letters, 1984, 3, 395-399.	0.5	49
35	Acoustic emission and deformation bands in Al-2.5% Mg and Cu-30% Zn. Acta Metallurgica, 1987, 35, 2851-2864.	2.1	47
36	Thermodynamics-Based Selection and Design of Creep-Resistant Cast Mg Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 5972-5988.	2.2	46

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37	3D characterization of intermetallics in a high pressure die cast Mg alloy using focused ion beam tomography. <i>Materials Characterization</i> , 2010, 61, 1035-1042.	4.4	44
38	A phenomenological approach to the Quality Index of Al-Si-Mg casting alloys. <i>International Journal of Cast Metals Research</i> , 2000, 12, 367-375.	1.0	41
39	Modeling of hardening and softening processes in Mg alloys. <i>Journal of Alloys and Compounds</i> , 2004, 378, 176-179.	5.5	41
40	Effect of aging on quality index of an Al-Cu casting alloy. <i>Materials Science and Technology</i> , 1999, 15, 711-716.	1.6	38
41	Microstructure Design and Heat Treatment Selection for Casting Alloys Using the Quality Index. <i>Journal of Materials Engineering and Performance</i> , 2000, 9, 215-221.	2.5	37
42	Damage and Fracture Mechanisms During High-Temperature Creep in Hot-Pressed Alumina. <i>Journal of the American Ceramic Society</i> , 1991, 74, 922-933.	3.8	36
43	Solute Content and the Grain Microstructure of High Pressure Diecast Magnesium-Aluminium Alloys. <i>Advanced Engineering Materials</i> , 2009, 11, 912-919.	3.5	35
44	Transient environmental effects of light alloy substitutions in transport vehicles. <i>Materials & Design</i> , 2009, 30, 2813-2822.	5.1	35
45	The skin effect and the yielding behavior of cold chamber high pressure die cast Mg-Al alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 542, 49-55.	5.6	34
46	Alloy Composition and Dendrite Arm Spacing in Al-Si-Cu-Mg-Fe Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 4071-4080.	2.2	33
47	Mg Effects on the Eutectic Structure and Tensile Properties of Al-Si-Mg Alloys. <i>Materials Science Forum</i> , 1997, 242, 159-164.	0.3	32
48	Size effects in aluminium alloy castings. <i>Acta Materialia</i> , 2010, 58, 3006-3013.	7.9	31
49	Quality index chart for different alloys and temperatures: a case study on aluminium die-casting alloys. <i>Journal of Light Metals</i> , 2001, 1, 51-59.	0.8	26
50	Selection of temper and Mg content to optimise the Quality Index of Al-7Si-Mg casting alloys. <i>International Journal of Cast Metals Research</i> , 2000, 12, 377-384.	1.0	25
51	High Temperature Strength and Stress Relaxation Behavior of Dilute Binary Mg Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 1313-1321.	2.2	25
52	Strengthening by the percolating intergranular eutectic in an HPDC Mg-Ce alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 599, 204-211.	5.6	23
53	Atomic size and local order effects on the high temperature strength of binary Mg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 673, 114-121.	5.6	23
54	Enhanced ductility in Al-Si-Cu-Mg foundry alloys with high Si content. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2006, 37, 897-903.	2.1	22

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55	Mechanism of plastic void growth during superplastic flow. <i>Materials Science and Technology</i> , 1986, 2, 1086-1092.	1.6	20
56	The development of the skin in HPDC Mg-Al alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 580, 191-195.	5.6	20
57	Acoustic emission during non-homogeneous flow in Al-Mg alloys. <i>Scripta Metallurgica</i> , 1983, 17, 1115-1120.	1.2	19
58	Cavitation damage in the superplastic Zn-22% Al-0.5% Cu alloy. <i>Acta Metallurgica</i> , 1987, 35, 897-906.	2.1	19
59	Hardness and flow strength in particulate metal matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 332, 311-317.	5.6	19
60	The Strength of the Spatially Interconnected Eutectic Network in HPDC Mg-La, Mg-Nd, and Mg-La-Nd Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 4386-4397.	2.2	18
61	On the strain to the onset of serrated flow in a magnesium alloy. <i>Scripta Materialia</i> , 2007, 56, 793-796.	5.2	17
62	Deformation Behavior of the Percolating Intermetallic Microstructure of High Pressure Die Cast AZ91 Alloy. <i>Advanced Engineering Materials</i> , 2013, 15, 1059-1067.	3.5	17
63	A rationale for the quality index of Al-Si-Mg casting alloys. <i>International Journal of Cast Metals Research</i> , 2000, 12, 385-391.	1.0	16
64	Strengthening Micromechanisms in Cold-Chamber High-Pressure Die-Cast Mg-Al Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 4117-4128.	2.2	16
65	The Effect of Microstructural Features and Defects on the Ductility of High Pressure Die Cast AS21, AM60 and AZ91. <i>Materials Science Forum</i> , 2003, 419-422, 147-152.	0.3	14
66	Anelastic Phenomena in Mg-Al Alloys. <i>Acta Physica Polonica A</i> , 2012, 122, 501-504.	0.5	14
67	Deformation Behavior of the Percolating Eutectic Intermetallic in HPDC and Squeeze-Cast Mg Alloys. <i>Jom</i> , 2014, 66, 2086-2094.	1.9	13
68	Grain growth at low strain rates in a superplastic Cu alloy. <i>Scripta Metallurgica</i> , 1982, 16, 1363-1365.	1.2	12
69	A microplasticity-based definition of the skin in HPDC Mg-Al alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 580, 355-361.	5.6	12
70	Superplastic behavior of a Zn-22 pct Al-0.5 pct Cu alloy. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1986, 17, 1873-1875.	1.4	11
71	The Effect of Solidification Dynamics on the Formation of the Skin in Die Cast Mg-Al and Mg-RE Alloys. <i>Advanced Engineering Materials</i> , 2013, 15, 302-307.	3.5	11
72	SDAS, Si and Cu Content, and the Size of Intermetallics in Al-Si-Cu-Mg-Fe Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 2082-2107.	2.2	11

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73	Grain Size Hardening Effects in Mg-Gd Solid Solutions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5401-5408.	2.2	11
74	Material properties and process assessment in Mg-Al casting alloys using strength-ductility charts. International Journal of Cast Metals Research, 2001, 14, 185-197.	1.0	10
75	Effect of Si additions and heat treatment on the mechanical behaviour of an Al-Mg casting alloy. International Journal of Cast Metals Research, 2004, 17, 94-98.	1.0	9
76	Microstructural Effects on the Strength-Ductility Relationship of Al-7Si-Mg Casting Alloys. Materials Science Forum, 2000, 331-337, 223-228.	0.3	8
77	Porosity formation in aluminium alloy castings under quasi-directional solidification. International Journal of Cast Metals Research, 1997, 9, 331-336.	1.0	6
78	Role of Solute Content on the Intermetallic Structure Development in HPDC Mg-Al Binary Alloys. Materials Science Forum, 2009, 618-619, 479-482.	0.3	6
79	Low-strain plasticity in a high pressure die cast Mg-Al alloy. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 024010.	2.0	6
80	Microstructural aspects of superplastic deformation of Al ₂ O ₃ /ZrO ₂ laminate composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 219, 148-155.	5.6	5
81	Tape Cast Al ₂ O ₃ /ZrO ₂ Composite Laminates. Ceramic Engineering and Science Proceedings, 0, , 873-880.	0.1	5
82	Solute Content and the Tensile Behavior of High Pressure Die Cast Mg-Al Alloys. Materials Science Forum, 2007, 561-565, 333-336.	0.3	4
83	Detection of acoustic emission and simultaneous observation of nuclear quadrupole resonance in the $^1\text{H} \rightarrow ^2\text{H}$ phase transition of paradichlorobenzene. Journal of Physics and Chemistry of Solids, 1983, 44, 647-650.	4.0	3
84	Amplitude measurement in acoustic emission. Review of Scientific Instruments, 1985, 56, 1669-1670.	1.3	3
85	Light Alloy Castings for Automotive Applications: The Case of Al vs. Mg. Materials Science Forum, 2006, 519-521, 1801-1808.	0.3	3
86	Solute and Temperature Effects on the Strain Hardening Behaviour of Mg-Zn Solid Solutions. Materials Science Forum, 2008, 567-568, 45-50.	0.3	3
87	Strain enhanced grain growth at large strains in a superplastic ZnAl alloy. Scripta Metallurgica, 1988, 22, 359-364.	1.2	2
88	Investigation of Streaking Defects on Aluminium Extrusions. Materials Science Forum, 0, 561-565, 341-344.	0.3	2
89	On the development of a pseudo micro-truss intermetallic microstructure in a high pressure die cast AZ91 alloy. Journal of Physics: Conference Series, 2010, 240, 012005.	0.4	2
90	The Skin Effect in an Mg-RE High Pressure Die Cast Alloy. Materials Science Forum, 2010, 654-656, 691-694.	0.3	2

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91	Effect of Si Content on the Size of Fe-Rich Intermetallic Particles in Al-xSi-0.8Fe Alloys. Materials Science Forum, 0, 765, 107-111.	0.3	2
92	The skin effect in a high pressure die cast Mg-RE alloy. Metallic Materials, 2011, 49, 207-212.	0.3	2
93	Effect of cyclic deformation on strain enhanced grain growth during superplastic flow. Materials Science and Technology, 1989, 5, 999-1004.	1.6	1
94	The growth of artificial voids during superplastic deformation of a Zn-Al-Cu alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1990, 128, 147-154.	5.6	1
95	Cross-Sectional Geometry and the Intermetallics Structure in a High Pressure Die Cast Mg-Al Alloy. Materials Science Forum, 2010, 638-642, 1579-1584.	0.3	1
96	The Skin Effect in a High Pressure Die Cast Mg-9%Al Alloy. Advanced Materials Research, 0, 97-101, 743-747.	0.3	1
97	Tape Casting Using Fine Ceramic Powders. Materials Research Society Symposia Proceedings, 1991, 249, 305.	0.1	0
98	Elastic Behavior of the Percolating Eutectic Structure of a High Pressure Die Cast Magnesium Alloy. , 0, , 79-83.		0
99	Strengthening Due to the Percolating Eutectic Microstructure in Squeeze Cast MRI230D. , 2014, , 203-207.		0