

The following are selected readings for magnesium solidification reviewed by an advisory group of TMS subject matter experts



PAPER TITLE	AUTHOR(S)	SOURCE	MORE
"Mathematical Modeling and Experimental Investigation of Shrinkage Porosity in Squeeze Casting of Magnesium Alloys AM50A"	A. Yu, S. Wang, N. Ki and H. Hu	Magnesium Technology 2007, p. 103	Link to 2007 Proceedings
"Hot Cracking Susceptibility of Binary Mg-Al Alloys"	G. Cao, S. Kou, and Y. A. Chang	Magnesium Technology 2006, p. 57	Link to 2006 Proceedings
"Phenomena of Formation of Gas induced Shrinkage Porosity in Pressure Die-Cast Mg-Alloys"	S. G. Lee, and A. M. Gokale	Magnesium Technology 2006, p. 83	Link to 2006 Proceedings
"On Liquidus and Solidus Temperatures in AZ and AM Alloys"	M. Ohno, D. Mirkovic, and R. Schmid-Fetzer	Magnesium Technology 2006, p. 129	Link to 2006 Proceedings
"Solidification and Microstructure of Mg-Al-(Ca,Sr,Ce,La) Ternary Alloys"	N. D. Saddock, A. Suzuki, K. Wu, S. C. Wildy, Y. A. Chang, T. M. Pollock, and J. W. Jones	Magnesium Technology 2005, 121	Link to 2005 Proceedings
"Numerical Simulations and Experimental Study of Hot Core Distortion Phenomenon in Magnesium Casting"	S. Bakhtiyarov, J. Capps, R. Overfelt, and D. Weiss	Magnesium Technology 2005, p. 365	Link to 2005 Proceedings
"Macrosegregation in High-Pressure Die-Cast AM60 Alloy"	S. G. Lee, A. M. Gokhale and G. R. Patel	Magnesium Technology 2005, p. 377	Link to 2005 Proceedings
"The Role of Microstructure and Porosity in Ductility of Die Cast AM50 and AM60 Magnesium Alloys"	G. Chadha, J. E. Allison and J. W. Jones	Magnesium Technology 2004, p. 181	Read the Full Paper
"Characterization of Mg Alloy Solidification and As-Cast Microstructures"	Y. W. Riddle, L. P. Barber and M. M. Makhlof	Magnesium Technology 2004, p. 203	Read the Full Paper
"Solidification of Cast Magnesium Alloys"	D. H. StJohn, A. K. Dahle, T. Abbott, M. D. Nave and M. Qian	Magnesium Technology 2003, p. 95	Read the Full Paper
"Characterizing Solidification by Non-Equilibrium Thermal Analysis"	Y. W. Riddle and M. M. Makhlof	Magnesium Technology 2003, p. 101	Read the Full Paper
"Influence of Physical Data and Cooling Conditions on the Solidification in Mg Die Casting"	K. Weiß and C. Honsel	Magnesium Technology 2003, p. 109	Read the Full Paper
"Process Parameters and Diecasting of Noranda's AJ52 High Temperature Mg-Al-Sr Alloy"	D. Argo, M. Pekguleryuz, P. Labelle, P. Vermette, R. Bouchard and M. Lefebvre	Magnesium Technology 2002, p. 87	Read the Full Paper
"The Effect of Aluminium Content and Grain Refinement on Porosity Formation in Mg-Al Alloys"	P.L. Schaffer, Y.C. Lee, and A.K. Dahle	Magnesium Technology 2001, p. 87	Read the Full Paper
"Diecastability and Properties of Mg-Al-Sr Based Alloys"	D. Argo, M. Pekguleryuz, P. Labelle, M. Dierks, T. Sparks, and T. Waltemate	Magnesium Technology 2001, p. 131	Read the Full Paper
"Solidification Behavior of Commercial Magnesium Alloys"	Q. Han, E. A. Kenik, S. R. Agnew and S. Viswanathan	Magnesium Technology 2001, p. 81	Read the Full Paper
"Eutectic Growth Morphologies in Magnesium-Aluminum Alloys"	M.D. Nave, A.K. Dahle, and D.H. St. John	Magnesium Technology 2000, p. 233	Read the Full Paper
"Filling and Solidification Modeling of Noranda's Magnesium Wheel Casting Process"	Y.R. Shen and D. Argo	Magnesium Technology 2000, p. 123	Read the Full Paper

"Stress Induced Defect Formation in Horizontal Direct Chill Cast Magnesium Alloys"	<i>J.F. Grandfield and A.K. Dahle</i>	Magnesium Technology 2000, p. 219	Read the Full Paper
"Solidification Induced Inhomogenities in Magnesium–Aluminium Alloy AZ91 Ingots"	<i>P. Bakke, C.D. Fuerst, H. Westengen</i>	Magnesium Technology 2000, p. 201	Read the Full Paper
"Observation of Intermetallic Particle and Inclusion Distributions in Magnesium Alloys"	<i>J.M. Tartaglia and J.C. Grebetz</i>	Magnesium Technology 2000, p. 113	Read the Full Paper
"The Role of Zinc in the Eutectic Solidification of Magnesium"	<i>M.D. Nave, A.K. Dahle, and D.H. St. John</i>	Magnesium Technology 2000, p. 243	Read the Full Paper
"Magnesium Melting/Casting and Remelting Foundries"	<i>H. Doersam</i>	Magnesium Technology 2000, p. 99	Read the Full Paper
"Optimisation of the Quality of High Pressure Die Cast Magnesium Alloys"	<i>A.K. Dahle, S. Sannes, D.H. StJohn, and H. Westengen</i>	Automotive Alloys 1999, p. 305	Read the Full Paper
"Semi-Solid Casting of Magnesium and Aluminum Alloys via the CRP (Continuous Rheo-conversion Process)"	<i>Rathindra DasGupta, Zachary Brown, Q. Pan, W. J. Bernard</i>	SAE 2006 World Congress & Exhibition, April 2006. Session: Advances in Lightweight Materials - Casting (Part 1 of 2)	Read Abstract