

The following are selected readings for magnesium primary production, recycling and environment reviewed by an advisory group of TMS subject matter experts



PAPER TITLE	AUTHOR(S)	SOURCE	LINK
"Development of a Magnesium Recycling Alloy Based on the AM Alloy System"	<i>D. Fechner, C. Blawert, N. Hort, and K. U. Kainer</i>	Magnesium Technology 2007, p. 287	Link to 2007 Proceedings
"Predicting the Influence of Coatings on Recyclability of Magnesium Using Energy Analysis"	<i>C. Meskers, U. Boin, R. Boom, M. Reuter and Y. Xiao</i>	Magnesium Technology 2007, p. 293	Link to 2007 Proceedings
The Evolution of Technology for Light Metals over the Last 50 Years: Al, Mg and Li	<i>J. W. Evans</i>	JOM, February 2007, p. 30	Link to 2007 Proceedings
"Economic and Environmental Factors in Light Alloys Automotive Applications"	<i>C. H. Caceres</i>	Met. Trans. A. Vol. 38. No. 7. July, 2007. Pp. 1649-1662.	Acquire Article
"Fluxless Recycling of Creep Resistant Die Casting Magnesium Alloys MRI 153M and MRI 230D"	<i>G. Shalev, N. Moscovitch, B. Bronfin, Z. Rubinovich and E. Aghion</i>	12th Magnesium Automotive and End Use Seminar	Read Article
"Literature Review on Magnesium Recycling"	<i>A. Javaid, E. Essadiqi, S. Bell, and B. Davis</i>	Magnesium Technology 2006, p. 7	Link to 2006 Proceedings
"Nb-Doped TiO ₂ Inert Anodes for Electrolytic Production of Magnesium Metal"	<i>A. Mousa, X. Y. Yan, M. I. Pownceby, M. Cooksey, K. J. McDonald, and M. R. Lanyon</i>	Magnesium Technology 2006, p. 13	Link to 2006 Proceedings
"The Physical Chemistry of the Carbothermic Route to Magnesium"	<i>G. Brooks, M. Nagle, S. Tassios, and S. Trang</i>	Magnesium Technology 2006, p. 25	Link to 2006 Proceedings
"Thermal De-Coating of Magnesium - A First Step Towards Recycling of Coated Magnesium"	<i>C. E. M. Meskers, A. Kvithyld, M. A. Reuter, and T. A. Engh</i>	Magnesium Technology 2006, p. 33	Link to 2006 Proceedings
"Use of CO ₂ -Snow for Protecting Molten Magnesium from Oxidation"	<i>F. -W. Bach, A. Karger, C. Pelz, and M. Schaper</i>	Magnesium Technology 2005, p. 3	Link to 2005 Proceedings
"Solid Oxide Membrane (SOM) for Cost Effective and Environmentally Sound Production of magnesium Directly from Magnesium Oxide"	<i>A. Krishnan, X. Liu, and U. Pal</i>	Magnesium Technology 2005, p. 7	Link to 2005 Proceedings
"Protecting Liquid Mg by Solid CO ₂ : New Ways to Avoid SF ₆ and SO ₂ "	<i>P. Biedenkopf, A. Karger, M. Laukotter, and W. Schneider</i>	Magnesium Technology 2005, p. 39	Link to 2005 Proceedings
"Life Cycle Environmental Impact of Magnesium Automotive Components"	<i>P. Koltun, A. Tharumarajah, and S. Ramakrishnan</i>	Magnesium Technology 2005, p. 43	Link to 2005 Proceedings
"A New Technique of Magnesium Electrolysis with Bischofite from Qinghai Salt Lakes in China"	<i>H. Lu, L. Yu, Y. Feng, Y. Liang, B. Liang and Y. Yang</i>	Magnesium Technology 2004, p. 139	Read Article
"Observations on the Use of a Hydrogen Anode in the Production of Electrolytic Magnesium"	<i>G. VanWeert and M. Rejaee</i>	Magnesium Technology 2004, p. 143	Read Article
"Production of Dense Rod from Magnesium Swarf for Re-Melting"	<i>R. Ye. Lapovok and P. F. Thomson</i>	Magnesium Technology 2004, p. 149	Read Article
"Effect of Impurities on Techniques for Speciation of Magnesium Oxides in Magnesium Production Electrolytes"	<i>S. Kashani-Nejad, K-W. Ng and R. Harris</i>	Magnesium Technology 2004, p. 155	Read Article

"Characterization of MgO/HCl/MgO Mixtures with Infrared Spectroscopy (IR)"	<i>S. Kashani-Nejad, K-W. Ng and R. Harris</i>	Magnesium Technology 2004, p. 161	Read Article
"The Environmental Impact of New Magnesium Alloys on the Transportation Industry"	<i>E. Aghion, B. Bronfin, H. Friedrich and Z. Rubinovich</i>	Magnesium Technology 2004, p. 167	Read Article
"A Comparison of the Greenhouse Impacts of Magnesium Produced by Electrolytic and Pidgeon Processes"	<i>S. Ramakrishnan and P. Koltun</i>	Magnesium Technology 2004, p. 173	Read Article
"Global Warming Impact of the Magnesium Produced in China Using the Pidgeon Process"	<i>S. Ramakrishnan and P. Koltun</i>	Resources, Conservation and Recycling, Vol. 42, Issue 1, August 2004, p. 49	Acquire Article
"Various Techniques to Study the Surface of Magnesium Protected by SF ₆ "	<i>K. Aarstad, G. Tranell, G. Pettersen and T. A. Engh</i>	Magnesium Technology 2003, p. 5	Read Article
"Magnesium Melt Protection at Magnesium Elektron using HFC-134a"	<i>P. Lyon, P. D. Rogers, J. F. King, S. P. Cashion and N. J. Ricketts</i>	Magnesium Technology 2003, p. 11	Read Article
"Melt Protection for the AJ52 Magnesium Strontium Alloy"	<i>D. Argo and M. Lefebvre</i>	Magnesium Technology 2003, p. 15	Read Article
"Measured SF ₆ Emissions from Magnesium Die Casting Operations"	<i>S. Bartos, J Marks, R. Kantamaneni and C. Lausch</i>	Magnesium Technology 2003, p. 23	Read Article
"Technologies for Efficient Mg-Scrap Recycling"	<i>G. Hanko and G. Macher</i>	Magnesium Technology 2003, pp. 29	Read Article
"Chemical Composition and Cleanliness Firing Recycling of the AJ52 Magnesium Strontium Alloy"	<i>D. Argo, P. Forakis and M. Lefebvre</i>	Magnesium Technology 2003, pp. 33	Read Article
"An Improved Process for the Production of Magnesium"	<i>H. Eklund, P. B. Engseth, B. Langseth, T. Mellerud and O. Wallevik</i>	Magnesium Technology 2002, p. 9	Read Article
"Solid-Oxide-Oxygen-Ion-Conducting Membrane (SOM) Technology for Green Synthesis of magnesium from Its Oxides"	<i>U. B. Pal, D. E. Woolley, A. Krishnan, T. Keenan, C. P. Manning and G. B. Kenney</i>	Magnesium Technology 2002, p. 19	Read Article
"Recycling of Different Types of Magnesium Scrap"	<i>H. Antrekowitsch, G. Hanko and P. Ebner</i>	Magnesium Technology 2002, pp. 43	Read Article
"Fluxless Refining of Clean DieCast Scrap for Noranda's AJ52 high Temperature Mg-Al-Sr Alloys"	<i>P. Forakis, E. Richard and D. Argo</i>	Magnesium Technology 2002, p. 49	Read Article
"Application of MagOxide Method for Cleanliness Evaluation of Magnesium Alloys"	<i>B. Bronfin, N. Polyak, E. Aghion, C. Fuerst and D. Barris</i>	Magnesium Technology 2002, pp. 55	Read Article
"Recycling Magnesium Alloy Housings for Notebook Computers"		Fujitsu Sci. Tech. J. 38, 1, p. 102-111. June 2002	Read Article
"Recycling Automotive Magnesium Scrap"	<i>G. Hanko, H. Antrekowitsch and P. Ebner</i>	JOM, February 2002, p. 51	Acquire Article
"The Pidgeon Process in China and Its Future"	<i>J. C. Zang and W. Ding</i>	Magnesium Technology 2001, p. 7	Read Article
"Vertical Larger-Diameter Vacuum Retort Magnesium Reduction Furnace"	<i>X. Mei, A. Yu, S. Shang, and T. Zhu</i>	Magnesium Technology 2001, p. 13	Read Article
"Hydrofluorocarbons as a Replacement for Sulphur Hexafluoride in Magnesium Process"	<i>N. J. Ricketts and S. P. Cashion</i>	Magnesium Technology 2001, p. 31	Read Article
"Interfacial Reactions Between SF ₆ and Molten Magnesium"	<i>M. J. Walzak, R. D. Davidson, N. S. McIntyre, D. Argo and B. R. Davis</i>	Magnesium Technology 2001, p. 37	Read Article
"U. S. EPA's SF ₆ Emission Reduction Partnership for the Magnesium Industry: An Update on Early Success"	<i>S. C. Bartos</i>	Magnesium Technology 2001, pp. 43	Read Article
"A New Conti-Process for the Fluxless Recycling of High Purity Magnesium"	<i>U. Galovsky and M. Kuhlein</i>	Magnesium Technology 2001, pp. 49	Read Article

"Innovative Vacuum Distillation for Magnesium Recycling"	<i>T. Zhu, N. Li, X. Mei, A. Yu and S. Shang</i>	Magnesium Technology 2001, pp. 55	Read Article
"Improving the Electrolytic Process for Magnesium Production"	<i>R.L. Thayer and R. Neelameggham</i>	JOM, August 2001, p. 15	Read Article
"Emerging SOM Technology for the Green Synthesis of Metals from Oxides"	<i>Uday B. Pal, David E. Woolley, and George B. Kenney, JOM, October 2001</i>	JOM, October 2001, p. 32	Read Article
"Magnesium Electrolysis - A Monopolar Viewpoint"	<i>O. Wallevik, K. Admundsen, A. Faucher, and T. Mellerud</i>	Magnesium Technology 2000, p. 13	Read Article
"Investigation on Electrocatalysis for Energy Savings in Magnesium Electrolysis"	<i>Z. Xie and Y. Liu</i>	Magnesium Technology 2000, p. 17	Read Article
"An Inert Metal Anode for Magnesium Electrowinning"	<i>J.F. Moore, J.N. Hryn, M.J. Pellin, W.F. Calaway, and K. Watson</i>	Magnesium Technology 2000, p. 21	Read Article
"The Magnola Demonstration Plant: A Valuable Investment in Technology Development and Improvement"	<i>K. Watson, P. Ficara, M. Charron, I. Peacey, E. Chin, and G. Bishop</i>	Magnesium Technology 2000, p. 27	Read Article
"Magnesium Electrolytic Production Process"	<i>G. Shekhovstov, V. Shchegolev, A. Tatakin, and I. Zabelin</i>	Magnesium Technology 2000, p. 31	Read Article
"Solid-Oxide Oxygen-Ion-Conducting Membrane (SOM) Technology for Production of Magnesium Metal by Direct Reduction of Magnesium Oxide (Extended Abstract)"	<i>D.E. Wolley, U. Pal, and G.B. Kenney</i>	Magnesium Technology 2000, p. 35	Read Article
"Fundamentals of Serpentine Leaching in Hydrochloric Acid Media",	<i>J.E. Dutrizac, T.T. Chen, and C.W. White</i>	Magnesium Technology 2000, p. 41	Read Article
"Reduction of Molten MgO-Bearing Slags with Ferroaluminium"	<i>J.D.T. Capocchi and V. Rajakumar</i>	Magnesium Technology 2000, p. 53	Read Article
"Magnesium Metal by the Heggie-Iolair Process"	<i>M.W. Wadsley</i>	Magnesium Technology 2000, p. 65	Read Article
"Protective Atmospheres for the Heat Treatment of Magnesium Alloys"	<i>P. F. Stratton and E. K. Chang</i>	Magnesium Technology 2000, p. 71	Read Article
"The Use of SO₂ as a Cover Gas for Molten Magnesium"	<i>S. Cashion and N. Ricketts</i>	Magnesium Technology 2000, p. 77	Read Article
"EPA's Voluntary Partnership with the Magnesium Industry for Climate Protection"	<i>S. C. Bartos</i>	Magnesium Technology 2000, pp. 83	Read Article
"Developing an Energy-Efficient Electrolytic Cell for Magnesium"	<i>N. Rajagopalan, S. Srikantan, L.K. Srinivasan, G.N. Kannan, and A. Selvakesan</i>	JOM, March 2000, p. 18	Read Article
"Serpentine Ore Microtextures Occurring in the Magnola Magnesium Process"	<i>T.T. Chen, J.E. Dutrizac, and C.W. White</i>	JOM, April 2000, p. 20	Read Article
"Solubilities and Raman Spectra of NdOCl in Some Chloride Melts of Interest for the Electrowinning of Magnesium from Its Oxide"	<i>H. Mediaas, O. Tkatcheva, V. Dracopoulos, G.N. Papatheodorou, G.J. Kipouros, and T. Ostvold</i>	Metallurgical and Materials Transactions B, p. 631	Acquire Article
"Magnesium Recycling Yesterday, Today, Tomorrow"	<i>R. E. Brown</i>	Recycling of Metals and Engineered Materials Edited by D.L. Stewart, R. Stephens and J.C. Daley, TMS, 2000, p. 1317	Read Article
"Addressing Some of the Key Recycling Issues in the Magnesium Industry with Integration of Primary Metal Production, Die Casting and Recycling"	<i>M. Rejaee and P. Steeneken</i>	Recycling of Metals and Engineered Materials Edited by D.L. Stewart, R. Stephens and J.C. Daley, TMS, 2000, p. 1331	Read Article