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## BIBLIOGRAFÍA

- [Ada98]** Adachi M., *Characteristics of UBE Rheocasting Process*, Conference Proceedings, Japanese Die Casting Association, JD **98-19**, (1998), 123-128.
- [Ahr03]** Ahrweiler S., Ratke L., Lacaze J., *Microsegregation and Microstructural Features of Directionally Solidified AISi and AISiMg Alloys*, Advanced Engineering Materials, **5**, 1-2, (2003), 17-23.

## Bibliografía

- [Ana95] Anantha L., Samuel F., Gruzleski J., *Dissolution of iron intermetallics in Al-Si alloys through nonequilibrium heat treatment*, Metallurgical and Materials Transactions, **26A**, 8, (1995), 2161-2173.
- [Ape90] Apelian D., Shivkumar S., Sigworth G., *Fundamental Aspects of Heat Treatment of Cast Al-Si-Mg Alloys*, AFS Transactions, **97**, (1990), 727-742.
- [Ape04] Apelian D., Pan Q. Y., Findon M., *Low cost and Energy Efficient Methods for the Manufacture of Semi-solid (SSM) Feedstock*, Die Casting Engineer, January, (2004), 22-27.
- [Atk05] Atkinson H. V., *Modelling the semisolid processing of metallic alloys*, Progress in Materials Science, **50**, (2005), 341-412.
- [Asm94] A.S.M. Specialty Handbook, *Aluminum and Aluminum Alloys*, Ed. J. R. Davis, Davis & Associates, Ohio (USA), (1994), 113, 537.
- [Asm99] A.S.M. International, *Corrosion Aluminium and Aluminium Alloys*, Ed. by J. R. Davis, Ohio (USA), (1999), 25-54.
- [Asp87] Asphahani A. I., Silence W. L., *Pitting corrosion*, Metal Handbook 9th, ASM, **13**, (1987), 112-114.
- [Bai02] Baile M. T., Forn A., Polo J. L., Cano E., Bastidas J. M., *Corrosión localizada de la aleación de aluminio A357 en solución de cloruro de sodio*, Deformación Metálica, **265**, (2002), 54-58.
- [Bak97] Baker B.C., West A.L., *Electrochemical impedance spectroscopy study of nickel-iron deposition I. Experimental Results*, Journal Electrochemical Society, **144**, (1997), 164-169 *II. Theoretical interpretation*, Journal Electrochemical Society, **144**, (1997), 169-175.

- [Bas86]** Bastidas, J. M., Feliu S., Morcillo M., *El método de la impedancia faradaica para el estudio de la corrosión. I Parte. Fundamentos teóricos*, Revista Metalurgia, **22**, (2), (1986), 120-129.
- [Bas00]** Basner T., *Rheocasting of Semi-Solid A357 Aluminum*, Proceedings of SAE 2000 World Congress, Detroit (USA), The Engineering Society for Advancing Mobility Land Sea Air and Space, (2000), 1-5.
- [Bas01]** Basner T., Pehlke R., Sachdev A., *The effect of Microstructure on the T6 mechanical properties of Semi-Solid formed A357 aluminium*, Proceedings from Materials Solutions Conference, (2001), 27-34.
- [Bast86]** Bastidas J. M., Feliu S., Morcillo M. *El método de la impedancia faradaica para el estudio de la corrosión. II parte. Algunas aplicaciones prácticas*, Revista Metalurgia, **22**, 3, (1986), 178-183.
- [Bast00]** Bastidas J.M., Polo J.L., Cano E., Torres D.L., Mora N., *Localised corrosion of highly alloyed stainless steels in an ammonium chloride and diethyl amine chloride aqueous solution*, Materials Corrosion, **51**, (2000), 712-718.
- [Bast01]** Bastidas J. M., Forn A., Baile M. T., Polo J. L., Torres C. L., *Pitting corrosion of A357 aluminium alloy obtained by semisolid processing*, Materials and Corrosion, **52**, (2001), 691-696.
- [Basti01]** Bastidas J. M., Polo J. L., Torres C. L., Cano E., *A study on the stability of AISI 316L stainless steel pitting corrosion through its transfer function*, Corrosion Science, **43**, (2001), 269-281.
- [Ber97]** Bergsma S. C., Tolle M. C., Kassner M. E. Li X., *Semi-Solid thermal transformations of Al-Si alloys an the results mechanical properties*, Materials Science and Engineering, **237**, 1, (1997), 24-34.

- [Ber00] Bergsma S.C., Kassner M.E., Evangelista E., Cerri E., *The optimised tensile and fatigue properties of electromagnetically stirred and Thermally transformed Semi-Solid 357 and Modified 319 Aluminium Alloys*, Metallurgical Science and Technology, **18**, (2000), 21-26.
- [Ber01] Bergsma S. C., Li X., Kassner M. E., *Semisolid thermal transformations in Al-Si alloys II. The optimized tensile and fatigue properties of semisolid 357 and modified 319 aluminium alloys*, Materials Science and Engineering, **297**, 1-2, (2001), 69-77.
- [Bla96] Blais S., Loue W., Pluchon C., *Structure control by electromagnetic stirring and reheating at semi-solid state*, Proceedings from 4<sup>th</sup> Intl. Conf. on Semi-solid Processing of Alloys and Composites, Sheffield (UK), (1996), 1-8.
- [Boi97] Boileau J. M., Zindel J. W., Allison J. E., *The effect of solidification time on the mechanical properties in a cast A356-t6 aluminum alloy*, Int. Congress Sensors and Actuators, Society of Automotive Engineers, **1251**, (1997), 61-72.
- [Bor99] Bordiga R., *Ube il rheocasting che recicla la billete*, Die Casting and Technology, September, (1999), 39-44.
- [Bro92] Brown, S. B., Kumar, P., Martin C. L., *Exploiting and characterizing the fundamental rheology of semi-solid materials*, Proceedings 2<sup>nd</sup>. Int. Conf. Processing of Semi-solid alloys and composites, Massachussets (USA), Ed. S.B. Brown and M.C. Fleming, (1992), 183-192.
- [Buc95] Buchheit R. G., *A compilation of corrosion potentials reported for intermetallic phases in aluminium alloys*, J. Electrochemical Society, **142**, 11, (1995), 3994-3996.
- [Cab01] Cabibbo M., Evangelista E., *Microstructural effect of the*

- L.H.I.P. process on the A356 aluminium alloy*, Metallurgical Science and Technology, **19**, 1, (2001), 12-15.
- [Cab02]** Cabibbo M., Spigarelli S., Evangelista E., *A TEM investigation on the effect of semisolid forming on precipitation processes in an Al-Mg-Si Alloy*, Materials Characterization, **49**, 3, (2002), 193-202.
- [Cac95]** Cáceres C. H., Davidson C., Griffiths J., *The deformation and fracture behaviour of an AlSiMg casting alloy*, Materials Science and Engineering, **A197**, (1995), 171-179.
- [Cac99]** Cáceres C. H., Davidson C. J., Griffiths J. R., Wang Q. C., *The effect of Mg on the microstructure and mechanicals behaviour of Al-Si-Mg casting alloys*, Metallurgical and Materials Transactions, **30A**, 10, (1999), 2611-2618.
- [Cal85]** Calvo F. A., Criado A. J., Gómez de Salazar J. M<sup>a</sup>., Molleda F., *Contribución al estudio de los mecanismos de esferoidización de las aleaciones Al-Si*, Revista de Metalurgia, Madrid, **21**, 5, (1985), 312-316.
- [Calv85]** Calvo F. A., Criado A. J., Martínez J. M., Gómez de Salazar J. M., Molleda F., *Influencia de los tratamientos térmicos de esferoidización sobre la dureza de las aleaciones del sistema Al-Si*, Revista de Metalurgia, **21**, 6, (1985), 342-345.
- [Cao90]** Cao C. H., *On the impedance plane displays for irreversible electrode reactions based on the stability conditions of ready state-I. One state variable besides electrode potential*, Electrochimica Acta, **35**, 5, (1990), 831-836.
- [Car96]** Carnahan, R. D., Decker R. F., Vining R., Eldener E., Kilbert R., Brinkekey D., *Influence of solid fraction on the shrinkage and physical properties of thixomolded Mg alloys*, Die Casting Engineer, **40**, 3, (1996), 1-5.

## Bibliografia

- [Cav04] Cavaliere P., Cerri E., Leo P., *Effect of heat treatments on mechanical properties and fracture behaviour of a thixocast A356 aluminium alloy*, Journal of Materials Science, **39**, (2004), 1653-1658.
- [Che99] Chen C. P., Tsao C-Y. A., *Semisolid deformation of aluminium alloy 356 with non-dendritic structure*, Materials Science and Technology (Institute of Materials), **15**, (1999), 981-984.
- [Chi96] Chiarmetta G., *Thixoforming for aluminium car parts*, Alluminio e Leghe, **8**, 78, (1996), 89-91.
- [Chi00] Chiarmetta G., *Why Thixo?*, 6th International Conference Semi-Solid Processing of Alloys and Composites, Torino (Italia), (2000), 15-21.
- [Chia96] Chiarmetta G., *Thixoforming of automobile components*, 4th International Conference on Semi-Solid Processing of Alloys and Composites, Sheffield (UK), (1996), 204-207.
- [Cho99] Cho W. G., Kang C. G., *Mechanical properties and their microstructure evaluation in the thixoforming process of semi-solid aluminium alloys*, Journal of Materials Processing Technologies, **105**, 3, (1999), 269-277.
- [Clo82] Closset B., Gruzleski J. E., *Structure and properties of hypoeutectic Al-Si-Mg alloys modified with pure strontium*, Metallurgical Transactions A., **13A**, (1982), 945-951.
- [Cou81] Couture A., *Iron in aluminium casting- A literature survey*, AFS International, Cast. Metals Journal, **6**, 4, (1981), 9-17.
- [Cri86] Criado A., Martínez J. M., Gómez de Salazar J. M., Molleda F., Calvo F. A., *Metalografía de la esferoidización de los cristales de silicio eutéctico*, Revista Fundición, **32**, 1, (1986), 21-23.

- [Cri87] Criado A. J., Lopez A., Gómez de Salazar J. M., Otelo Z., *Mejora de las propiedades mecánicas Al-Si por colada en coquilla refrigerada y posterior recocido de esferoidización*, Revista Fundición, **33**, 6, (1987), 27-30.
- [Cri88] Criado A. J., Lopez A., Gómez de Salazar J. M., Hierro P., *Aleaciones del sistema Al-Si: Moldeo en coquillas refrigeradas y posterior tratamiento de recocido de esferoidización*, Revista Técnica Metalúrgica, **286**, (1988), 4-14.
- [Cria85] Criado A. J., Martinez J. M., Gómez de Salazar J. M., Molleda F., Calvo F. A., *Contribución al estudio de los mecanismos de esferoidización de las aleaciones Al-Si*, Revista Técnica Metalúrgica, **21**, 5, (1985), 312-316.
- [Cria87] Criado A. J., Martinez J. A., Gómez de Salazar J. M., Molleda F., *Metallography of the spheroidization of eutectic silicon crystal*, Praktische-Matallographie, **24**, 4, (1987), 175-179.
- [Das04] DasGupta R., Xia Y., *Squeeze Casting: Principles and Applications*, Die Casting Engineer, January, (2004), 54-58.
- [Dav87] Davis J.R., *Properties and selection: nonferrous Alloys and Pure Metals*, Metal Handbook, **2**, 9th ed., Metals Park, Ohio (USA), American Society for Metals, (1987), 1-204.
- [Dav00] Davidson C.J., Griffiths J.R., Dadiali M., Zanda A., *Fatigue properties of a Semi-Solid Cast Al-7Si-0,3Mg-T6 alloy*, Metallurgical Science and Technology, **18**, 2, (2000), 27-31.
- [Dob96] Dobatking V. I., Eskin G. I., *Ingots of Aluminum Alloys with Nondendritic Structure by Ultrasonic Treatment for Deformation in the Semi-Solid State*, Proceeding of 4th International Conference on Semi-solid Alloys and Composites, Sheffield (UK), (1996), 193-196.

## Bibliografía

- [Doh84]** Doherty R. D., Lee H. I., Feest E. A., *Microstructure of stir-cast metals*, Materials Science and Engineering, **65**, 1, (1984), 181-189.
- [Dou03]** Doutre D., Hay G., Wales P., Gabathuler J. P., *SEED: A new process for semi-solid forming*, 42th Annual Conference of Metalurgists of CIM, METSOC, Vancouver (Canadá), (2003), 293-306.
- [Dou04]** Doutre D., Langlais J., Roy S., *The SEED process for semisolid forming*, Proceedings of 8<sup>th</sup> International Conference S2P Semi-Solid Processing, Limassol (Chipre), (2004), 1-12.
- [Dub00]** Dubost B., Sinfort P., *Durcissement par précipitation des alliages d'Aluminium*, Materiaux Métalliques : Étude et propriétés, Techniqués de l'Ingenieur, **MB2**, (2000), M240-1-M242-5.
- [Eng01]** A Guide to Aluminium Casting Alloys, Engineered Casting Solutions (USA), **3**, 3, (2001), 52-57.
- [Epe75]** Epelboin I., Ksouri M., Wiart R., *On a model for the electrocrystallization of zinc involving an autocatalytic step*, J. Electrochem. Soc., **122**, (1975), 1206-1214.
- [Eri87]** Erickson S. C., *A process for the Injection molding of thixotropic Mg alloy parts*, Proceedings of 44th World Magnesium Conference, Tokyo (Japan), International Mg Association, (1987), 1-6.
- [Eva81]** Evans U. R., *An introduction to metallic corrosion*, Arnolf Ed., Londres, (1981).
- [Fan02]** Fan Z., *Semisolid metal processing*, International Metal Reviews, **47**, 2, (2002), 1-37.

- [Fel85] Feliu S., Feliu V., *Modelado e Identificación de procesos de corrosión. Análisis de la respuesta a señales eléctricas*, Monografías del Instituto Eduardo Torroja, **380**, Consejo Superior de Investigaciones Científicas, Madrid, (1985), 1-60.
- [Fig98] Figueredo A. M., Sumartha Y., Fleming M. C., *Measurement and calculation of solid fraction in quenched semi-solid melts of rheocast aluminium alloy A357*, Proceedings of Sessions TMS Annual Meeting, Pennsylvania (USA), Light Metals, (1998), 1103-1106.
- [Fig00] Figueredo A. M., Kato A., Flemings M. C., *Viscosity of Semi-Solid A357 alloy in The Transient High Shear Rate Regime*, Metallurgical Science and Technology, **18**, 2, (2000), 32-36.
- [Fle72] Flemings M. C., Spencer D. B., Mehrabian R., *Rheological Behaviour of Sn-14Pct PB in Crystallization Range*, Metallurgical Transaction, **3**, (1972), 1925-1932.
- [Fle76] Flemings M. C., Riek R. G, Young K. P., *Rheocasting*, Materials Science and Engineering, **25**, (1976), 103-117.
- [Fle91] Flemings M.C., *Behaviour of metal alloys in the semisolid state*, Metallurgical Transactions A, **22A**, (1991), 957-981.
- [Fle92] Flemings M.C., *Rheology and structure of some aluminium base composites*, Proceedings of 2nd Int. Conf. on semi-solid alloys and composites, Ed S.B. Brown and M.C. Flemings, TMS, Massachusetts (USA), (1992), 202-210.
- [Fle94] Flemings M. C., *Materials engineering 2000 and beyond. Strategies for competitiveness*, Advanced Materials and Processes, **145**, 1, (1994), 22-24.
- [Fle00] Flemings M.C., *Semi-Solid Forming. The Process and the path Forward*, Metallurgical Science and Techn., **18**, 2, (2000), 3-4.

## Bibliografía

- [Fle01] Flemings M. C., Yurko J., Martinez R., *A-Microstructural evolution in semi-solid alloys; B-Development of alternate semisolid aluminium alloys (ORNL)*, Massachusetts Technological Institute (USA), (2001), 1-5, 1-11.
- [For98] Forn A., Baile M. T., Simón M. J., Nogué R., *Conformación en estado semisólido: efecto del tratamiento térmico en la aleación A357*, Anales de Ingeniería Mecánica, **2**, (1998), 519-524.
- [For99] Forn A., Baile M. T., Nogué R., *Evolución de la microestructura de la aleación A357 en el proceso de conformación en estado semisólido*, Actas de la VI Reunión Nacional de Materiales, San Sebastián (España), (1999), 193-195.
- [For00] Forn A., Bastidas J. M., Baile M. T., Torres C. L., Polo J. L., Costa J. M., *Pitting corrosion of aluminium alloys components obtained by thixocasting*, Proceedings of Conference and exhibition Eurocorr 2000, Institute of Materials, London (UK), (2000), 1-5.
- [For03] Forn A., Baile M. T., Martín E., Rupérez E., *Effect of heat treatments in the silicon eutectic crystal evolution in Al-Si alloys*, Proceedings of 1<sup>st</sup> International Meeting on Applied Physics (APHYS), Badajoz (España), (2003), 1-6.
- [For04] Forn A., Baile M. T., Martín E., Chiarmetta G. L., *SSM Process for automotive components production*, Proceedings of World Automotive Congress FISITA 2004, Barcelona (España), (2004), 1-8.
- [For05] Forn A., Baile M. T., Martín E., Rupérez E., *Effect of heat treatments in the silicon eutectic crystal evolution in Al-Si alloys*, Materials Science Forum , **480-481**, (2005), 367-372.
- [For99] Forn A., Baile M. T., Costa J. M., *Corrosion of semisolid conformation components from A356 and A357 Alloys*,

- Proceedings of 14 <sup>a</sup> International Corrosion Congress, Corrosion Institute of Southern Africa, Cape Town (South Africa), (1999), 1-7.
- [Forn00]** Forn A., Baile M.T., Simón M.J., Nogué R., *Microestructura y resistencia a la corrosión de la aleación A357 T5-T6 obtenida por thixocasting*, Actas del 8<sup>a</sup> Congreso Nacional de Tratamientos Térmicos y de Superficie, Barcelona (España), (2000), 167-174.
- [Forn04]** Forn A., Baile M. T., Martin E., Chiarmetta G. L., *The new technologies evolution in semisolid aluminium casting*, Proceedings of the 8th International Conference on Semisolid Processing of Alloys and Composites, Limassol (Chipre), (2004), 1-7.
- [Forn05]** Forn A., Baile M. T., Picas J. A., y Martin E., *Propiedades mecánicas y análisis fractográfico de componentes conformados en estado semisólido*, Anales de Mecánica de la Fractura, **22**, (2005), 190-196.
- [Forna04]** Forn A., López Caballero J. A., Baile M. T, Martín E., Bastidas J. M., *Pitting corrosion of A357 aluminium alloy heat treated*, Trends in Electrochemistry and Corrosion at the beginning of the 21st Century, Ed. UB, Barcelona (España), (2004), 1041-1049.
- [Gab92]** Gabathuler J. P., Barras D., Kranhenbuhl Y., Weber J. C., *Evaluation of Various Process of The Production of Billets with Thixotropic properties*, Proceedings of 2th International Conference on Semi-Solid Alloys and Composites, Massachusetts (USA), (1992), 33-46.
- [Gab93]** Gabathuler J-P, Huber H. J., Erling J., *Specific Properties of Produced Past using the Thixocasting Process*, Proceedings of International Conference on Aluminium Alloys New process

Technologies, Milan (Italia), (1993), 1-12.

- [Gab96]** Gabathuler J. P., Ditzler C., *Quality and properties of thixoformed suspension components for the automotive industry*, Proceedings of 4th International Conference on Semisolid Processing of Alloys and Composites, Sheffield (UK), (1996), 331-336.
- [Gar74]** Garabedian H., Strickland-Constable R. F., *Collision breeding of ice crystals*, Journal of Crystal Growth, **22**, (1974), 188-192.
- [Gar98]** M. Garat, Blais S., Pluchon C., Loué W. R., *Aluminium semisolid processing: From the billet to the finished part*, Proc. of 5<sup>th</sup> International Conference on Semisolid Processing of Alloys and Compounds, Golden (USA), (1998), 557-564.
- [God67]** Godard H.P., Jepson W.P., Bothwell M.R., Kane R.L., *The corrosion of light metals*, Ed. John Wiley and Sons, New York (USA), (1967), 3-198.
- [Gul00]** Gullo G.-C., Steinhoff K., Uggowitzer P.J., *Metallurgical Aspects of Thixoforming of AlMgSi -wrought alloys*, Mat. Science Forum, **331-337**, (2000), 235-240.
- [Gus86]** Gustafsson G., Thorvaldsson T., Dunlop G. L., *Influence of Fe and Cr on the microstructure of cast Al-Si-Mg alloys*, Metallurgical Transactions A., **17A**, 1, (1986), 45-52.
- [Hab94]** Habraken F. A., Dautzenberg J.H., *Formability of rapid-solidification-processed hypereutectic Al-Si alloys*, CIRP Annals, **43**, 1, (1994), 211-214.
- [Hag02]** Haga T., Kapranos P., *Simple rheocasting processes*, Journal of Materials Processing Technology, **130-131**, (2002), 594-598.

- [Haga02] Haga T., Kapranos P., *Billet less simple thixoforming process*, Journal of Materials Processing Technology, **130-131**, (2002), 581-586.
- [Hal00] Hall K., Kaufmann H., Mundl A., *Detailed Processing and Cost considerations for New-Rheocasting of Light Metal Alloys*, Proceedings of 6<sup>th</sup> International Conference Semi-solid Processing of Alloys and Composites, Torino (Italia), (2000), 23-28.
- [Hat84] Hatch J. E., *Aluminium: Properties and Physical Metallurgy*, 1st ed. by ASM, Metals Park, Ohio (USA), (1984), 50-61,64, 83-87.
- [Hat88] Hatch J. E., *Aluminium: Properties and Physical Metallurgy*, 2nd edition, American Society for metals, Ohio (USA), (1988), 134-199.
- [Hei99] Heine H. J., *Fundamentals of heat treating*, Part2: Nonferrous alloys, American Machinist, March, (1999), 160-168.
- [Hoc00] Hocheid B., Poupeau P., *Diagrammes d'équilibre*, Materiaux Métalliques : Étude et propriétés, Techniques de l'Ingenieur, **MB2**, (2000), M761.
- [Hor01] Hornbogen E., *Hundred years of precipitation hardening*, Journal of Light Metals, **1**, (2001), 127-132.
- [Hu70] Hu H., Rath B. B., *On the time isothermal grain growth*, Metallurgical Transactions, **1**, 11, (1970), 3181- 3184.
- [Ide98] Idegomori T., Hirono H., Ito O., Kimishima S., Mizoue K., *The Manufacturing of Automobile Parts Using Semi-Solid Metal Processing*, Honda Engineering Co. Tochigi Technical Center, Proceedings of 5th International Conference on Semisolid, Golden (EEUU), (1998), 71-77.

## Bibliografia

- [Jac72] Jacobs M. H., *Structure of the metastable precipitates formed during ageing of Al-Mg-Si alloy*, Review of the Electrical Communication Laboratories, **26**, 1, (1972), 1-13.
- [Jir04] Jirattiticharoean W., Jones H., Atkinson H. V., Todd I., Kaprinos P., *Thixoforming of aluminium 7xxx alloys produced using a cooling slope*, Proceedings of 8<sup>th</sup> International Conference S2P Semi-Solid Processing, Limassol (Chipre), (2004), 1-10.
- [Jol76] Joly P. A., Mehrabian R. J., *Rheology of a partially solid alloy*, Journal of Materials Science, **11**, (1992), 1392-1418.
- [Jor00] Jorstad J. L., *Semi-solid metal processing: a cost competitive approach for high integrity aluminum components*, Proceedings of 6th International Conference on Semisolid Processing of Alloy and Composites, Torino (Italia), (2000), 227-234.
- [Jor02] Jorstad J. L., *Economical Semi Solid Metal (SSM) Processing of Automotive Components*, Proceedings of SAE 2002 World Congress, Detroit (USA), (2002), 1-8.
- [Jor03] Jorstad J. L., Thiemam M., Kamm R., Lukasson M., *Brinding SSM casting to the masses*, Modern Casting, **93**, 10, (2003), 34-40.
- [Jor04] Jorstad J. L., *Semi-solid Metal Processing: The high Integrity Die Casting Process*, Die Casting Engineer, January, (2004), 42-48.
- [Jors03] Jorstad J., Thieman M., Kamm R., Loughman M., Woehlke T., *Sub Liquidus Casting (SLC): Process Concept and Product Properties*, AFS transactions, **111**, (2003), 399-406.
- [Jun01] Jung H. K., Kang C. G., *Induction heating process on an Al-Si aluminium alloy for semi-solid die casting and its resulting microstructure*, Journal of Materials Processing Technology, **120**,

- (2001), 355-364.
- [Kan00] Kang C. G., Jung H. K., *A Study on a thixoforming process using the thixotropic behavior of an aluminium alloy with an equiaxed microstructure*, Journal of Materials Engineering and Performance, **9**, (2000), 4530-4535.
- [Kap93] Kaprinos P., Kirkwood D. H., Sellars C. M., *Semisolid Forging of High Temperature Alloys*, Proceedings of 2nd International Conference on Semi-solid Processing of Alloys and Composites, Massachusetts (USA), (1993), 119-129.
- [Kap01] Kaprinos P., *Semi-Solid Metal Processing-Thixoforming*, SRI Consulting Business Intelligence, USA, March, (2001), 1-6.
- [Kau99] Kaufmann H., *New Rheocasting (NRC) - Verfahren; Metallurgie und Ökonomie, Innenhochdruck - und Thixoformen von stahl, Aluminium und Magnesium*, ed. F. Ebert u. M. Woydt, Schriftenreihe Praxis - Forum, (1999), 17-30.
- [Kau00] Kaufmann H., Wabusseg H., Uggowitzeler P. J., *Metallurgical and Processing Aspects of the NRC Semi-Solid Casting Tehcnology*, Aluminium, **76**, 1, (2000), 70-82.
- [Kauf00] Kaufmann H., Uggowitzeler P. J., *Influence of heat treatment conditions on the mechanical properties of new rheocasting aluminum parts*, 2<sup>nd</sup> Int. Conf. on Processing Materials for Properties, The minerals, Metals and Materials Soc., San Francisco (USA), (2000), 25-29.
- [Kaz00] Kazakov A., *Alloy compositions of semisolid forming*, Advanced Materials and Processes, **157**, 3, (2000), 31-36.
- [Ken88] Kenney M. P., Courtois J. A., Evans R. D., Farrior G. M., Kyonka C. P., Koch A. A., Young K. P., *Semisolid Metal casting and Forming*, Metals Handbook, 9th Edition, **15**, (1998), 327-338.

## Bibliografia

- [Kenn88] Kenneth P. Y., *Semi-Solid Metal Casting New Technology from Buhler*, Private doc., Buhler Ltd, (1988), 1-6.
- [Kir89] Kirkwood D. H., Kapranos P., *Semi-Solid Processing of Alloys*, Metals and Materials, **5**, 1, (1989), 16-19.
- [Kir94] Kirkwood D. H., *Semisolid metal processing*, Int. Materials Reviews University of Sheffield, **39**, (5), (1994), 173-189.
- [Kir96] Kirkwood D. H., *Semisolid processing of high melting point alloys*, Proceedings of 4th International Conference on Semisolid Processing of Alloys and Composites, Sheffield (UK), (1996), 320-325.
- [Kla99] Klansky J., *Image Analysis of aluminium alloys*. Advanced Materials and Processes, **156**, (1999), 23-26.
- [Kle03] Kleiner S., Orgis E., Beffort O., Uggowitzer P. J., *Semi-Solid Metal Processing of Aluminium Alloy A356 and Magnesium Alloy AZ91: Comparison Based on Metallurgical Considerations*, Advanced Engineering Materials, **9**, (2003), 653-658.
- [Kra04] Kral M. V., McIntyre H. R., Smillie M. J., *Identification of intermetallic phases in a eutectic Al-Si casting alloy using electron backscatter diffraction pattern analysis*, Scripta Materialia, **51**, (2004), 215-219.
- [Lac96] Lacaze J., Lesoult G., Ansara I., *Rosettes in Al-Cu-Mg-Si aluminium alloys. Part 1*, Materials Science Forum, **217-222**, (1996), 171-176.
- [Lav92] Lavernia, E. J., Wu, Y., *Nature and properties of semi-solid materials*, Ed. J. A. Seknar and Dantzing, Metals and Materials Soc., (1992), 201-229.

- [Lea88] Leathman, A. G., Ogilvy, A. J. W., Chesney P. F., Metelmann, O., *Production of advanced materials by means of the Osprey Process*, Proceedings of 1988 International Powder Metallurgy Conference, Orlando (USA), (1988), 475-488.
- [Lea93] Leathman A. G., Lawley A., *The Osprey Process: Principles and Applications*, International J. Powder Metallurgy, **29**, 4, (1993), 321-329.
- [Leh94] Lehnert F., Staniek G., Welipman K., Peters M., Kaysser W. A., Lotze G., Stephani G., *Production of particle reinforced aluminium alloy fibre-shaped particulates by melt extraction*, Advances in Powder Metallurgy and Particulates Materials, **6**, (1994), 149-159.
- [Leb02] LeBeau S., Maffia J., *Thixomolding: Plastic Injection Moulding Turns to Metal*, Engineered Casting Solutions ([www.castsolutions.com](http://www.castsolutions.com)), (2002), 33-35.
- [Leo03] Leo P., Cerri E., *Silicon particle damage in a thixocast A356 aluminium alloy*, Metallurgical Science and Technology, **21**, 1, (2003), 27-31.
- [Lia92] Liang X., Earthman J. C., Lavernia E. J., *On the mechanism of grain formation during spray atomisation and deposition*, Acta Metallurgica et Materialia, **40**, 11, (1992), 3003-3016.
- [Lia94] Liang X., Lavernia E.J., *Evolution of interaction domain microstructure during spray deposition*, Metallurgical and Materials Transactions A: Physical Metallurgy and materials Science, **25A**, 11, (1994), 2341-2355.
- [Lif61] Lifschitz I. M., Slyozov V. V., *The kinetics of precipitation from supersaturated solutions*, Journal of Physics and Chemistry of Solids, **19**, 1-2, (1961), 35-50.

## Bibliografia

- [Liu98] Liu C., Pan, Y., Aoyama, S., *Microstructure evaluation of semi-solid Al-Si-0,4Mg alloy by short time supersonic vibrations*, Proceedings of 5th International Conference on Semi-solid Processing of Alloys and Composites, Golden (USA), **2**, (1998), 431-447.
- [Liv82] Livak R. J., *Effects of copper and chromium on the aging response of dilute Al-Mg-Si alloys*, Metallurgical Transaction, **13A**, (1982), 1318-1321.
- [Lor78] Lorimer G. W., *Precipitation in Aluminium Alloys, (Precipitation Process in Solids)*, Rusell K. C. Aaronson M. I. (Eds), Metallurgical Society of Aime, New York (USA), **3**, 87-119, (1978).
- [Lou86] Loubet J. L., Georges J. M., Mielle G., *Vickers indentation curves of elastoplastic materials*, Microindentation Techniques in Materials Science and Engineering, ASTM STP 889, (1986), 7-89.
- [Lou92] Loué W. R., *Evolution Microstructurale et Comportement Rhéologique d'Alliages Al-Si à l'état Semi-Solide*, Ph. D. thesis, Institute National Polytechnique de Grenoble, France (1992).
- [Lou95] Loué W. R., Brimont M., Pluchon C., Garat M., *Metallurgical aspects of thixoforming of A356.0 an A357.0 alloys*, Cambridge Scientific (USA), Conference Die Casting Innovation, NADCA Indianapolis T95-113, (1995), 389-396.
- [Loue92] Loué W. R., Querbes J. L., Suéry M., *Microstructure and rheology of partially remelted AlSi-alloys*, Proceedings of 2<sup>nd</sup> International Conference Processing of Semi-Solid Alloys and Composites, MIT, Cambridge (USA), (1992), 266-275.
- [Loue95] Loué W. R., Suéry M., *Microstructural evolution during partial remelting of Al-Si7Mg Alloy*, Materials Science and

- Engineering, **A203**, 1-2, (1995), 1-13.
- [Luc93]** Lucas K. A., Clarke H., *Corrosion aluminium-based metal matrix Composites*, John Wiley and sons Inc, New York (USA), (1993), 25-49.
- [Luk02]** Luckason M., Apelian D., Dasgupta R., *Alloys characterisation for new ube RheoCasting Process*, AFS Transactions, **110**, (2002), 1-14.
- [Lut61]** Lutts A., *Pre-precipitation in Al-Mg-Ge and Al-Mg-Si*, Acta Metallurgica, **9**, 6, (1961), 577-586.
- [Man95]** Mansfeld F., *Use of electrochemycal impedance spectroscopy for the study of corrosion protection by polimer cratings*, Journal of Applied Electrochemistry, **25**, (1995), 187-202.
- [Mar88]** Marsh S. P., Glicksman M. E., Meloro I., Tsutsumi K., *Modelling of Casting and Welding Processes*, TMS, Warrendale Piwonka and A. F. Giemei (eds), (1998).
- [Mar90]** Martinez M. A., Criado A. J., Gómez de Salazar J. M., *Crecimiento dendrítico del silicio en aleaciones ligeras del sistema Al-Si*, Revista Técnica Metalúrgica, **296**, (1985), 32-36.
- [Mar02]** Martin J. J., Thesis: *An atomic Scale View on a Model Catalyst Pd Monoparticles on TiO<sub>2</sub>*, ISBN 90-901 4222-3, (2002), 73-79.
- [Mat89]** Mathur P., Apelian D., Lawley A., *Analysis of the Spray Deposition Process*, Acta Metallurgica, **37**, 2, (1989), 429-443.
- [McC03]** McCafferty E., *Sequence of steps in the pitting of aluminium by chloride ions*, Corrosion Science, **45**, (2003), 1421-1438.
- [McD01]** MacDonald S. D., Dahle A. K., Taylor J. A., StJohn D. H., Zindel J. W., *Microstructural Evolution an Al-Si-Mg Foundry Alloy During*

- Solidification*, Die Casting Bulletin, **88**, (2001), 12-19.
- [Met87]** Metal Handbook, *Properties and Selection Nonferrous Alloys and Pure Metal*, 9<sup>a</sup> ed., **2**, (1987), 1-204.
- [Met89]** Metallographic Atlas of Cast Aluminum Alloys, Editions Techniques des Industries de la Fonderie, Sevres, (1989), 87-98.
- [Mon55]** Mondolfo L. F., Zmeskal O., *Engineering Metallurgy*, McGraw-Hill Book Company, New York (USA), (1955).
- [Mon76]** Mondolfo L. F. *Aluminium alloys: structure and properties*, Butterworths, London, (1976), 787-805.
- [Moo90]** Moon, H. K., Ph.D. Thesis: *Rheological behaviour and microstructure of ceramic particulate/aluminium alloy composites*, Massachusetts Institute of Technology, Cambridge (USA), (1990).
- [Mor93]** Morton-Jones D. H., *Procesamiento de plásticos*, Ed. Limusa, México, (1993), 52-56.
- [Mot98]** Motegi T., Ogawa N., Kondo K., Liu C., Aoyama S., *Continuous casting of semisolid Al-Si-Mg alloy*, Proc. of the 6<sup>th</sup> International Conf. Aluminium Alloys (ICCA-6), Tokyo (Japan), **1**, (1998), 297-326.
- [Mul96]** Müller-Späth H., Achten M., Sahm P. R., *SSP process - a new technology for homogeneous billet production*, 4th Intl. Conf. on Semi-Solid Processing of Alloys and Composites, Sheffield (UK), (1996), 174-179.
- [Mul98]** Müller-Späth H., Bernhard D., Kahn D., Sahm P. R., Bednareck H., *Innovative Foundry Technology for the future Thixocasting and Magnesium Die Casting*, 63rd World Foundry Congress, (1998), 1-14.

- [Mur99] Murayama M., Hono K., *Pre-Precipitate clusters and precipitation processes in Al-Si-Mg Alloys*, Acta Materialia, **47**, 5, (1999), 1537-1548.
- [Nad99] NADCA: *Standards for SSM and squeeze cast properties*, (1999).
- [Nar95] Narayanan L. A., Samuel F. H., Gruzleski J. E., *Dissolution of iron intermetallics in Al-Si alloys through nonequilibrium*, Metallurgical and Material Trans. A, **26A**, 8, (1995), 2161-2173,
- [Nie98] Niedermainer F., Langgatner J., Hirt G., Niedick I., *Horizontal Continuous Casting of SSM Billets*, 5th International Conference on Semi-solid Processing of Alloys and Composites, Golden (USA), (1998), 407-414.
- [Nis78] Nisancioglu K., Holtan H., *Measurement of the Critical Pitting Potential of Aluminium*, Corrosion Science, **8**, (1978), 835-849.
- [Ogr02] Ogris E., Wahlen A., Lüchinger H., Uggowitzer P. J., *On the silicon spheroidization in Al-Si alloys*, Journal of Light Metals, **2**, (2002), 263-269.
- [Ogr02] Ogris E., Lüchinger H., Uggowitzer P. J., *Silicon spheroidization treatment of thixoformed Al-Si-Mg*, Proceedings of 8th International Conference Aluminium Alloys, Cambridge (U.K.), Materials Science Forum, **396-402**, (2002), 149-154.
- [Ote97] Otero E., *Corrosión y degradación de materiales*, Ed. Síntesis, Madrid, (1997), 121-135, 309-310.
- [Pan04] Pan Q. Y., Findon M., Apelian D., *The continuous rheoconversion (CRP): a novel SSM approach*, Proceedings of 8<sup>th</sup> International Conference S2P Semi-Solid Processing, Limassol (Chipre), (2004), 1-8.
- [Par93] Paray F., Gruzleski J.E., *Modification a parameter to consider in*

- the heat treatment of Al-Si alloys*, Cast Metals, **5**, 4, (1993), 187-198.
- [Par00]** Páramo V., Colás R., Velasco E., Vatlerra S., *Spheroidization of the Al-Si Eutectic in a Cast Aluminum Alloy*, Journal of Materials Engineering and Performance, **9**, 6, (2000), 616-622.
- [Pas92]** Pasternak L., Carnahan R., Decker R., Kilbert R., *Semisolid production processed of magnesium alloys by thixomolding*, Proceedings of the 2nd International Conference and the Processing of Semisolid Alloys an Components, Massachusetts (USA), (1992), 159-169.
- [Pat21]** Pacz A., *US Patent 1387900*, (1921).
- [Pat72]** Flemings M. C., Mehrabian R., Riek R. G., *Continuous process for forming and alloy containing non dendritic primary solids*, U.S. Patent 3.902.544, Sept. 2, (1972).
- [Pat81]** Winter J., Tyler D. E., Datnzig J. A., *Method and Apparatus for Casting Metals and Alloys*, United States, Patent 4,450,893, (1981).
- [Pat83]** Young K. P., Kyonka C. P., Courtois J. A., *U.S. Patent 4.415.374*, (1983).
- [Pat84]** Young K. P., Tyle D. E., Cheskis H. P., Watson W. G., *U.S. Patent 4.482.012*, (1984).
- [Pat87]** *Patent International C23C4/12, B22D 23/00 Osprey*, (1987).
- [Pat88]** *French Patent Specification 234677*, Aluminium Pechiney, (1988).
- [Pat91]** Meyer J. L., *US Patent 521 9819*, (1991).

- [Pat94] Young K. P., *Fine grain metal composition*, European Patent 0.090.253, (1994).
- [Pat96] Mitsuru A., Patent Pechiney MHD, *European Patent Nº 0 745 694 A1*, (1996).
- [Pat98] French Patent specification 2656552, Aluminium Pechiney, (1998).
- [Pat02] Flemings M.C., Martinez-Ayers R.A., de Figueiredo A.M., Yurko J.A., *US Patent. Nº 20020096231 [SSR<sup>TM</sup>]*, (2002).
- [Pate02] SEED Process, *U.S. Patent 642836*, (2002).
- [Pate96] UBE Industries Ltd, *European Patent 96108499-3*, (1996).
- [Pic00] Picas J. A., *Optimización y caracterización de la aleación 2Ti-0'2Pd para aplicaciones clínicas*, Tesis Doctoral, (2000), 2.73-2.91.
- [Plu95] Pluchon C., Loue W., Menet P., Garat M., *Development of semi-solid metal forming feedstock and finished parts*, Proceedings of Sessions TMS Annual Meeting, Pennsylvania (USA), (1995), 1233-1242.
- [Plu98] Pluchon C., Loue W., Menet P-V., Garat M, *Production of thixotropic aluminium alloys billets*, Casting Plant and Technology International, **14**, 2, (1998), 24-28.
- [Pol95] Polmear I. J., *Light alloys*, Metallurgy of the light metals, Metallurgy and Materials Science Series, Ed. Arnold, 3rd edition, (1995), 27-66, 168-195.
- [Pol98] Polo J. L., Torres D. L., Bastidas J. M., Mora E. M., *Copper corrosion impedance data and its validation using Kramers-Kronig equations*, Res. Trends., **6**, (1998), 221-227.

## Bibliografía

- [Pol99] Polo J. L., Torres C. L., Cano E., Bastidas J. M., *Estudio de impedancia de la corrosión del acero inoxidable AISI 316L en las regiones pasiva y de picadura*, Revista de Metalurgia, **35**, (1999), 368-378.
- [Por92] Porter D.A., Easterling K.E., *Phase Transformations in Metals and Alloys*, 2nd edition, Ed. Chapman & Hall, London (UK), (1992), 314-318.
- [Pou66] Pourbaix M., *Aluminium, Atlas of electrochemical equilibrium in aqueous solutions*, Ed. Pergamon, Oxford (UK), (1966), 168-176.
- [Pra89] Prado J. M., Herrero A., Planell J. A., Tartera J., *Metalurgia General*, **2**, Ed. CPDA, Barcelona, (1989), 55.
- [Pra91] Prasad B. K., Dan T. K., *Some observations of the effects of overheating in a hypoeutectic Al-Si alloy*, Regional Research Laboratory, **82**, 2, (1991), 124-128.
- [Pra94] Prasad B. K., *Structure-Property related changes in hypoeutectic aluminium-silicon alloy induced by solutionizing*, Materials Transactions, **35**, 12, (1994), 873-878.
- [Qua94] Quaak C. J., Kool W. H., *Properties of semisolid aluminium matrix composites*, Materials Science and Engineering A: Structural Materials, Properties, Microstructure and Processing, **A188**, 1-2, (1994), 277-282.
- [Ram88] Ramos M. A., De María M. R., *Ingeniería de los materiales plásticos*, Ed. Díaz de Santos, Madrid, (1988), 33-53.
- [Rod99] Rodriguez Rius D., *Observación de capas de nitruro de titanio mediante tratamientos termoquímicos en titanio y Ti6Al4V y caracterización de sus propiedades para aplicaciones biomédicas*, Tesis doctoral, (1999), 98-99.

- [Rom02] Rometsch P. A., Schaffer G.B, *An age hardening model for Al-7Si-Mg casting alloys*, Materials Science and Engineering A, **325**, 1-2, (2002), 424-434.
- [Roo88] Rooy Elwin L., *Aluminium and aluminium alloys*, Metal Handbook for Casting, **15**, ASM International, Metals Park, Ohio (USA), (1988), 743-770.
- [Ros00] Rosso M., Giordano P., Chiarmetta G. L., *Study of the influence heat treatment cycles on properties of thixoformed automotive parts*, Proceedings of 6th International Conference on Semi-solid Processing of Alloys and Composites, Torino (Italia), (2000), 325-329.
- [Sah04] Saha D., Apelian D., DasGupta R., *SSM processing of hypereutectic Al-Si alloys- an overview*, Proceedings of 8<sup>th</sup> International Conference S2P Semi-Solid Processing, Limassol (Chipre), (2004), 1-10.
- [Sal95] Salvo L., Loue W. R., Suery M., *Influence of prior solidification on the structure and rheological behaviour of partially remelted Al-Si alloys*, ISIJ International, **35**, n 6, (1995), 798-804.
- [Shi90] Shivkumar S., Ricci S., Keller C., Apelian D., *Effect of solution treatment parameters on tensile test of cast aluminium alloys*, Journal Heat Treating, **8**, 1, (1990), 63-70.
- [Shi96] Shibata R., Kaneuchi T., Soda T., Lizuka Y., *New semi-liquid metal casting process*, Proceedings of 4th Internat. Conf. on Semisolid Processing of Alloys and Composites, Sheffield (UK), (1996), 296-300.
- [Sie01] Siegert K., Huber S., *Forming of Spray Formed Copper Alloys*, New Developments in Forming Technology, (2001), 99-117.
- [Sma85] Smallman R. E., *Phase Transformation I-precipitation hardening*

- transformation*, Modern Physical Metallurgy, 4<sup>a</sup> ed., Butterworth, London (UK), (1985), 378-417.
- [Sma99]** Smallman R. E., Bishop R. J., *Modern physical Metallurgy and materials Engineering*, 6<sup>a</sup> ed., Butterworth, London (UK), (1999), 272-273.
- [Smi83]** Smithells C. J., *Metals Reference Book*, 6th ed., Ed. E. A. Brandes, pub. Butterworths, cap.11 Equilibrium Diagrams, (1983), 29.
- [Sne65]** Sneddon I. N., *The relation between load and penetration in the axisymmetric bouddines problem for a punch of arbitrary profile*, International Journal of Engineering Science, **3**, (1965), 44-57.
- [Sol02]** Solomatov V. S., *Constrains on the grain size in the mantles of terrestrial planets*, Lunar and Planetary Science XXXIII, 1446pdf, (2002), 1-2.
- [Spe72]** Spencer D. B., Meherabian R., Flemings M. C., *Rehological behaviour of Sn-15pctPb in the crystallization range*, Metallurgical Transactions, **3**, (1972), 1925-1932.
- [Sri92]** Srivatsan T. S., Lavernia E. J., *Processing, fabrication and manufacturing of composite materials*, American Society of Mechanical Engineers, Materials Division (Publication) MD, Processing, Fabrication and Manufacturing of Composite Materials, **35**, (1993), 265.
- [Str61]** Streeter V. L., *Handbook of fluid dynamics*, McGraw Hill book company, 1<sup>o</sup> ed. 7/2, (1961).
- [Stu98]** Stucky M., Richard M., Salvo L., Suéry M., *Influence of electromagnetic stirring, partial remelting and thixoforming on mechanical properties of A356 alloys*, 5th Int. Conf. on Semi-

- Solid Processing of Alloys and Composites, Golden (USA), (1998), 513-520.
- [Sue96] Suery M., *Mise en forme à l'état semisolide: rhéoformage et thixoformage*, Techniques de l'Ingénieur, MC2, Doc. M612, (1996), 1-13.
- [Sue98] Suery M., *Thixocasting of aluminium alloys: from microstructure in the semi-solid state to mechanical properties*, 6th Int Conf. Aluminium Alloys ICAA-6, 1, (1998), 51-61.
- [Sum98] Sumartha Y., de Figueiredo A. M., Fleming M. C., *Flow Behaviour of Semi-Solid Aluminium Alloys A356 and A357*, Proceedings of 5<sup>th</sup> International Conference on Semi-solid Processing of Alloys and Composites, Golden (USA), (1998), 57-67.
- [Tay00] Taylor J. A., St John D. H., Barresi J., Couper M. J., *Influence of Mg content on the microstructure and solid solution chemistry of Al-7%Si-Mg casting alloys during solution treatment*, Materials Science Forum, 331-337, (2000), 277-282.
- [Tzi98] Tzimas E., Zavaliangos A., Lawley A., *The effect of microstructure on the rheological response of alloys in semisolid: A comparison of MHD, SIMA, and spray cast alloys*, Proc. of 5<sup>th</sup> International Conference on the Processing of Semi-solid Alloys and Composites, Golden (USA), (1998), 345-352.
- [Urq86] Urquidi-McDonald M., Real S., Macdonald D. D., *Application of Kramers-Kronig transform in the analysis of electrochemical impedance data. III. Stability and linearity*, Journal Electrochemical Society, 133, 2018-2024, (1986).
- [Val96] Valer J., Rodriguez J. M., Urcola J. J., *Conformado de aleaciones en estado semisólido. Aplicación a aleaciones hipereutecticas de Al-Si*, Revista de Metalurgia, 32, 4, (1996), 231-247.

## Bibliografía

- [Val97] Valer J., Rodriguez J. M., Urcola J. J., *Comportamiento a tracción a temperatura ambiente y elevas de nuevo composites basados en aleaciones hipereutecticas de Al-Si*, Revista de Metalurgia, 33, 10-20, (1997).
- [Vale96] Valer J., Rodriguez J. M., Urcola J. J., *Strength an toughness of semi-solid processed hypereutectic Al-Si alloys*, Scripta Materialia, 34, 3, (1996), 483-489.
- [Ver75] Verhoeven J. D., *Fundamentals of Physical Metallurgy*, Cap. 11, *Precipitation from Solid Solutions*, Ed. Wiley, New York, (1975), 363-420.
- [Ver87] Verhoeven J. D., *Fundamentos de Metalurgia Física*, Cap. 6, *Difusión*, Ed. Limusa, (1987), 157-233.
- [Vin03] Vinarcik E. J., *High Integrity die Casting Processes*, John Wiley & sons Ed., New York, (2003), 72.
- [Vog79] Vogel A., Doherty R. D., Cantor B., *Solidification and Casting of Metals*, The metals Society, London (UK), (1979), 518-525.
- [Wab00] Wabusseg H., Gullo G. C., Kaufmann H., Uggowitzer P. J., *Properties of AlMgSi1 wrought alloy components produced by means of the NRC-Process*, 2nd Int. Conference on Processing Materials for properties, San Francisco (USA), (2000), 37-40.
- [Wabu00] Wabusseg H., Kaufmann H., Uggowitzer P. J., *Adaptation of Al-foundry alloys for new Rheocasting*, 6th Conf. on Semi-Solid Processing of Alloys and Composites, Torino (Italia), (2000), 77-782.
- [Wabus00] Wabusseg H., Kaufmann H., Uggowitzer P. J., *Struktur und Eigenschaften von New Rheocasting – Bautalen*, Giesserei, 87, 3, (2000), 39-43.

- [Wal86] Walter G. W., *A review of impedance plot methods used for corrosion performance analysis of painted metals*, Corrosion Science, **226**, 9, (1986), 681-703.
- [Wan92] Wan G., Sahm P. R., *Particle characteristics and coarsening mechanisms in semi-solid processing*, Proc. 2nd Conf. Semisolid Alloys and Components, Massachusetts (USA), (1992), 328-335.
- [Wan95] Wang L., Makhlof M., Apelian D., *Aluminum die casting alloys: Alloy composition, microstructure and properties- performance relationships*, International Materials Reviews, **40**, 6, (1995), 221-238.
- [Wen03] Wen K. Y., Hu W., Gottstein G., *Intermetallic compounds in thixofomed aluminium alloy A356*, Materials Science and Technology, **19**, (2003), 762-768.
- [Wer87] Wernick, S., Pinner, R., Sheasby, P. G., The surface treatment and finishing of aluminium and its alloys, 5th. ed., publications ASM, cap. 5, (1987), 220-288.
- [Win00] Winterbottom W. L., *Semi-Solid Forming applications: High volume automotive products*, Metallurgical Science and Technology, **18**, 2, (2000), 5-10.
- [www1] Semi-Solid Metal Technology and Research Group (SSMTRG), [www.un.ac.za/department/extra.asp](http://www.un.ac.za/department/extra.asp)
- [www2] New Semi-Solid Metal Casting Process Provides Economical Option, [www.moderncasting.com](http://www.moderncasting.com)
- [www3] Advanced Casting Research Center Worcester University [www.wpi.edu](http://www.wpi.edu)
- [www4] Corrosion Behaviour Alloy A357, AGARD-AG-299.

[www.rta.nato.int](http://www.rta.nato.int)

- [www5] Mechanical properties of aluminum casting alloys,  
[www.ramsden.on.ca/alloys.htm](http://www.ramsden.on.ca/alloys.htm)
- [You95] Young K. P., *Pressure die-casting with semi-solid metal*, Fonderia, **44**, 5-6, (1995), 66-68.
- [You96] Young K. P., Semisolid metal (SSM) casting applications and case stories in aluminium and magnesium, Light Metals: Proceedings of Annual Meeting, Ligth Metals, (1996), 775-780.
- [You00] Young K., Eisen P., *SSM (Semi-Solid Metal) technological alternatives for different applications*, Metallurgical Science and Technology, **18**, 2, (2000), 11-15.
- [Youn95] Young P., Kenneth Dr., *SSM casting process: applications and case stories in aluminium and magnesium*, NADCA, Indianapolis T95-115, (1995), 403-409.
- [Yur03] Yurko J. A., Martinez R. A., Flemings M. C., *Commercial development of the semi-solid rheocasting (SSR) process*, Metallurgical Science and Technology, **21**, 1, (2003), 10-15.
- [Yur04] Yurko J., Flemings M., Martinez R., *Semi-Solid Rheocasting (SSR)- Increasing the Capabilities of Die Casting*, Die Casting Engineer, (2004), 50-52.
- [Yurk04] Yurko J., Martinez, R. A., Flemings M. C., *SSR<sup>TM</sup>: The spheroidal growth route to semi-solid forming*, Proceedings of 8<sup>th</sup> International Conference S2P Semi-Solid Processing, Limassol (Chipre), (2004), 1-12.
- [Zha03] Yongzhong Zhang, Kui Zhang, Guojun Liu, Jun Xu, Likai Shi, Daijin Cui, *The formation of rosette alfa phase structural evolution during the reheating and semi-solid casting of*

- AlSi7Mg alloy*, Journal Materials Processing Technology, **137**, (2004), 195-200.
- [Zha93] Zhang P. Q., Wu J. X., Zhang W. Q., Lu X. Y., Wang K., *A pitting mechanism for passive 304 stainless steel in sulphuric acid media containing chloride ions*, Corrosion Science, **34**, (1993), 1343.
- [Zhu01] Zhu H., Guo J., Jia J., *Correlation of the characteristics and deformation behaviour of A357 alloy*, Journal of Materials Engineering and Performance, **10**, 2, (2001), 186-191.
- [Zin98] Zinn R. K., Brevick J., *The effects of heat treatment on semisolid metal A356 casting*, proceedings of Conference materials Solutions 98, Rosemont (USA), Advanced in Aluminium Casting Technology, (1998), 45-52.
- [Zoq02] Zoqui E. J., Shehata M. T., Paes M., Kao V., Es-Sadiqi E., *Morphological evolution of SSM A356 during partial remelting*, Materials Science and Engineering, **A325**, (2002), 38-53.