

## VI.1. Bibliografía

- [1] **Th. Schubert, T. Weißgärber, B. Kieback, H. Balzer, H.C. Neubing, U. Baum, R. Braun**, Metal Powder Report, 60 (3) (2005) 32-37.
- [2] **A. Pohl**, Powder Metall. 49 (2) (2006) 104-106.
- [3] **P.Lindskog**, Powder Metallurgy 47 (1) (2004) 6-9.
- [4] **J.A. Rodríguez, J.M. Gallardo, E.J. Herrera, Mater. Trans.** 36 (2) (1995) 312-316.
- [5] Dry wear of NiAl<sub>3</sub>-reinforced mechanically alloyed aluminium with different microstructure. **A.E. Jiménez, M.D. Bermúdez, J. Cintas, E.J. Herrera**
- [6] Influence of milling conditions on the wear resistance of mechanically alloyed aluminium. **María-Dolores Bermúdez, Francisco J. Carrión, Patricia Iglesias, Ginés Martínez-Nicolás, Enrique J. Herrera, José A. Rodríguez**.
- [7] Wear of aluminium-base materials processed by mechanical milling in air or ammonia. **Patricia Iglesias, María-Dolores Bermúdez, Francisco J. Carrión, Ginés Martínez-Nicolás, Enrique J. Herrera, José A. Rodríguez, Moisés Naranjo**.
- [8] High-strength PM aluminium by milling in ammonia gas and sintering **J. Cintas, F.G. Cuevas, J.M. Montes, E.J. Herrera**.

- [9] Heat-resistant bulk nanostructured P/M aluminium. **J. Cintas, J.M. Montes, F.G. Cuevas, E.J. Herrera.**
- [10] Dry and lubricated wear resistance of mechanically-alloyed aluminium-base sintered composites. **M.D. Bermúdez, G. Martínez-Nicolás, F.J. Carrión, I. Martínez-Mateo, J.A. Rodríguez; E.J. Herrera.**
- [11] **T. Senthilvelan, K. Raghukandan, A. Venkatraman**, Journal of Materials Processing Technology 142 (3) (2003) 767-772.
- [12] Synthesis and mechanical behavior of nanostructured materials via cryomilling. **D.B. Witkin, E.J. Lavernia.**
- [13] Cryomilled nanostructured materials: Processing and properties. **E.J. Lavernia , B.Q. Han, J.M. Schoenung.**
- [14] **D'ARMAS DUGARTE, H.G.** “Comportamiento bajo cargas monotónicas y cíclicas de aleaciones sinterizadas Fe-C-Ni-Cu-Mo”. Tesis Doctoral. Barcelona (España), 1999, p.2-7, 11-20, 177, 180, 181.
- [15] **EUROPEAN POWDER METALLURGY ASSOCIATION (EPMA)**, [www.epma.com](http://www.epma.com).
- [16] **HARDRBOLEZT, A; WEISS, B.** “Fatigue behaviour of iron based sintered material: a review”, International Materials Reviews, Vol.42, nº1, p.2, 3.
- [17] **Höganäs Chair** Seminar in Powder Metallurgy. “Fatigue of PM steels. The Present situation and Future”. Barcelona (España),2001.
- [18] **AMERICAN SOCIETY FOR METALS.** “Powder Metallurgy”. Colección Metal’s Handbook. Vol.7. Ed. ASM Handbook Committée. Ohio (U.S.A.), 1993, p.11, 14-18, 82-83, 186, 228, 262-264, 272-277, 334-335, 352, 360-361, 410, 697.
- [19] **HERRERO, A; GIL, J; LLANES, L; MASPOCH, M.Ll; CABRERA J.M.** “Prácticas de laboratorio de ciencia y tecnología de materiales”. Ed. Publicacions d’Abast, S.L.L. Barcelona, 1997, p.35-45.
- [20] **GROOVER, M.P.** “Fundamentos de manufactura moderna: materiales, procesos y sistemas”. Ed. Prentice Hall. México, 1997, p.395-398, 400-401, 403, 405-407, 410-411, 413-414, 599.
- [21] **AMERICAN SOCIETY FOR METALS.** “Properties and Selection: Irons, Steels and High-Performance Alloys”. Colección Metal’s Handbook. Vol.1. Ed. ASM Handbook Committée. Ohio (U.S.A.), 1990, p.802, 805, 810.
- [22] **DAVIS, R.M.; McDERMOTT, B. and KOCH, C.C.** “Mechanical Alloying of Brittle Materials” Met. Trans. A-Phys. Met. Mater. Sc., 19; 2867-2874, (1988).

- [23] **MAURICE, D.R. and COURTNEY, T.H.** “Modeling of mechanical alloying: part I. deformation coalescence, and fragmentation mechanisms” Metall. Mater. Trans. A, 25 (1); 147-158, (1994).
- [24] **MAURICE, D.R. and COURTNEY, T.H.** “Modeling of mechanical alloying: Part II. Development of computational modeling programs” Metall. Mater. Trans. A, 26 (9); 2431-2435, (1995).
- [25] **MAURICE, D.R. and COURTNEY, T.H.** “Modeling of mechanical alloying: PartIII. Applications of computational programs” Metall. Mater. Trans. A, 26 (9); 2437-2444, (1995).
- [26] **SCHAFFER, G.B. and McCORMICK, P.G.** “On the kinetics of mechanical alloying” Met. Trans. A-Phys. Met. Mater. Sc., 23; 1285-1290, (1992).
- [27] **ZHANG, H. and LIU, X.** “Analysis of milling energy in synthesis and formation mechanism of molybdenum disilicide by mechanical alloying” Int. J. Refract. Met. Hard Mater., 19; 203-208, (2001).
- [28] **SCHAFFER, G.B. and McCORMICK, P.G.** “Anomalous combustion effects during mechanical alloying” Met. Trans. A-Phys. Met. Mater. Sc., 22; 3019-3024, (1991).
- [29] **SCHAFFER, G.B. and FORRESTER, J.S.** “The influence of collision energy and strain accumulation on the kinetics of mechanical alloying” J. Mat. Sci., 32; 3157- 3162, (1997).
- [30] **RYU, H.J.; HONG, S.H. and BAEK, W.H.** “Mechanical alloying process of 93W-5.6Ni-1.4Fe tungsten heavy alloy” J. Mater. Process. Technol., 63; 292-297, (1997).
- [31] **SAJI, S.; NEISHI, Y.; ARAKI, H.; MINAMINO, Y. and YAMANE, T.** “Amorphization promoted by mechanical alloying of aluminum-rich Al-Ti-Fe mixed powders” Met. Trans. A-Phys. Met. Mater. Sc., 26 (5); 1305-1307, (1995).
- [32] **KENNEDY, C.; MURR, L.E.; PAPPU, S. and KAPOOR, D.** “Microstructural analysis and comparison of mechanically alloyed and P/M processed W-HfC and W-Ir-HfC penetrator rods” Proceedings of the Advanced Particulate Materials and Processes, Princeton, USA; 227-234, (1997).
- [33] **MUKHOPADHYAY, N.K.; YADAV, T.P. and SRIVASTAVA, O.N.** “An investigation on the transformation of the icosahedral phase in the Al-Fe-Cu system during mechanical milling and subsequent annealing” Philosophical Magazine A: Phys. Cond. Matter., 82 (16); 2979-2993, (2002).
- [34] **ZHU SU, M.; TAMURA, M.; SAKAMOTO, K. and IWASAKI, K.** “Synthesis and characterization of mechanically alloyed and HIP-consolidated Fe-25Al-10Ti intermetallic alloy” High Temperature Ordered Intermetallic

Alloys. Proceedings IX Symp. Materials Research Society, Warrendale, USA, 646; 331-336; (2001).

- [35] **ZHU SU, M. and IWASAKI, K.** "Microstructure and mechanical properties of mechanically alloyed and HIP-consolidated Fe3Al" Mater. Trans. JIM, 40 (12); 1461-1466, (1999).
- [36] **WATANABE, R.; HASHIMOTO, H. and LEE, G.G.** "Computer simulation of milling ball motion in mechanical alloying (overview)" Mater. Trans. JIM, 36 (2); 102-109, (1995).
- [37] **Norton, R.** *Diseño de Máquinas*. México: Pearson-Prentice Hall, 1999. p. 1048. ISBN: 970-17-0257-3.
- [38] **Stachowiak, G.W & Batchelor, A. W.** *Engineering Tribology*. Western, Australia : Butterwoth, Heinemann, 2000.
- [39] *Contact and Rubbing of Flat Surfaces*. **Archard, J.F., & Hirst, W.** 1953, J. Appl. Phys, Vol. 24.
- [40] *The Wear of Metals Under Lubricated Conditions*. **Archard, J. F., & Hirst, W.** 1953, Proc. Roy. Soc. A, Vol. 236.
- [41] *On the Law of Adhesive Wear*. **Barwell, J. T., & Strang, C. D.** 1952, J. Appl. Phys, Vol. 23.
- [42] **Rabinowicz, E.** *Friction and Wear of Materials*. New Yorks, N.Y : John Wiley & Sons, 1965.
- [43] *Predicting the Wear of Metal Parts*. **Rabinowicz, E.** 1958, Prod. Eng, Vol. 29.
- [44] **Wulpi, D. J.** *Understanding How Components Fail*. Amer. Soc. For Metals: Metals Park, Ohio, 1990, with permission.
- [45] *Abrasive Wear*. **Moore, M.A.** [ed.] Metals Park, Ohio D.A. Rigney. Pittsburgh, Pennsylvania : Publ. ASM, 1981. ASM Materials Science Seminar on Fundamentals of Friction and Wear of Materials. págs. 73-118.
- [46] **Suh, N.P** et. al. *The Delamination Theory of Wear*. New York, NY : Elsevier, 1977.
- [47] **Uhlig, H.H.** *Corrosion Handbook*. New York, NY : J. Wiley, 1948.
- [48] *Microscopic Observations of Abrasive Wear of Polycrystalline Alumina*. **Swain, M.V.** 1975, Wear, Vol. 35, pág. 185.
- [49] *The Latest Investigations of Wear by the Microscopic Observations*. **Kayaba, T.** 1984, JSLE Transactions, Vol. 29, págs. 9-14.

- [50] *A Dynamic Wear Rig for the Scanning Electron Microscope.* **Lim, S.C & Brunton, J.H.** 1985, Wear, Vol. 101, págs. 81-91.
- [51] *Significance of Grit Morphology in fine Abrasion.* **Dean, S.K & Doyle, E.D.** 1975, Wear, Vol. 35, pág. 123.
- [52] *Plastic Deformation Below Worn Surfaces.* **Moore, M.A & Douthwaite, R.M.** 1978, Metallurgical Transactions, Vol. 7A, pág. 1833.
- [53] *An Explanation of the Different Regimes of Friction and Wear Using Asperity Deformation Models.* **Challen, J.M. & Oxley, P.L.B.** 1979, Wear, Vol. 53, págs. 229-243.
- [54] **Phillips, K.** Study of the Free Abrasive Grinding of Glass and Fused Silica. *Ph. D. Thesis.* s.l., United Kingdom : University of Sussex, 1975.
- [55] *Abrasive Wear of Brittle Solids.* **Moore, M.A & King, F.S.** 1980, Wear, Vol. 60, pág. 123.
- [56] *Wear of Steels.* **Vingsbo, O & Hogmark, S.** [ed.] Metals Park, Ohio. D.A. Rigney. Pittsburgh, Pennsylvania : Publ. ASM, 1981. ASM Materials Science Seminar on Fundamentals of Friction and Wear of Materials. págs. 373-408.
- [57] *Effect of Material Combination in Rubbing Parts on Three Body Abrasive Wear.* **Emori, N, Sasada, T y Oike, M.** 1985, JSLE Transactions, Vol. 30, págs. 53-59.
- [58] *The Effects of Abrasive Grain Size on the Transition Between Abrasive and Adhesive Wear.* **Sasada, T y Oike, M & Emori, N.** 1984, Wear, Vol. 97, págs. 291-302.
- [59] *The Use of the Scanning Electron Microscope to Study the Deterioration of Abrasive Papers.* **Johnson, R.W.** 1968, Wear, Vol. 12, págs. 213-216.
- [60] *A Classification of Three-Body Abrasive Wear and Design of a New Tester.* **Ludema, K.C. y Glaeser, W.A. & Rhee, S.K,** [ed.]. Dearborn, Michigan, USA : ASTM, 1979. ASTM Int. Conf. on Wear of Materials. pág. 313.
- [61] **Booser, E.R.** Volume I and II. *Handbook of Lubrication.* Boca Raton : CRC Press, 1984.
- [62] *Applying Viscosity Index to Solution of Lubricating Problems.* **Davis, G.H.B y Lapeyrouse, G.M & Dean, E.W.** 1932, Journal of Oil and Gas, Vol. 30, pág. 92.
- [63] *Pressure Viscosity Characteristics of Lubricating Oils.* **Cameron, P.S.Y. Chu and A.** 1962, Journal of the Institute of Petroleum, Vol. 48, pág. 147.
- [64] **Cameron, A.** *The Principles of Lubrication.* s.l. : Longmans Green and Co. Ltd, 1966.

- [65] *Improved Bench Oxidation Tests for Railroad Diesel Engine Lubricants.* **Thompson, R.D. Stauffer and J.L.** 1988, Lubrication Engineering, Vol. 44, pág. 416.
- [66] *Designing for Zero Wear.* **Bayer, R.G. y Shalkey, A.T. & Wyason, R.** 1969, Machine Design.
- [67] *Designing for Measureable Wear.* **Bayer, R.G & Wyason, R.** 1969, Machine Design.
- [68] *A New Look at Scoring Phenomena of Gears.* **Kelly, B. W.** 1953. SAE Trans. Vol. 61.
- [69] *Thermoplastic Displacement and Stresses Due to a Heat Source Moving over the Surface of a Halfplane.* **Barber, J.R.** 1984. Trans. ASME, J. Eng. Indust. págs. 636-640.
- [70] **Evans, U. R.** *Corrosion Protection and Passivity.* London : E. Arnold, 1946.
- [71] **Avery, H.S.** *Surface Protection Against Wear and Corrosion.* American Society for Metals. s.l. : ASM, 1954, 3.
- [72] **Larsen, R.G., & Perry, G.L.** *Mechanical Wear.* American Society for Metals. s.l. : ASM, 1950, 5.
- [73] **Godfrey, D.** *NACA Technical Note No. 2039.* 1950.
- [74] **Wright, K. H.** London : s.n., 1952. Proc. Inst. Mech. Engrs. Vol. 1B, pág. 556.
- [75] *Wear-Corrosion and Erosion, Interdisciplinary Approach to Liquid Lubricant Technology.* **Row, C.N.** 1973. NASA, SP-318.
- [76] *Fatigue of Curved Surfaces in Contact Under Repeated Load Cycles.* **Kennedy, N. G.** [ed.] Inst. Mech. Engrs. 1956. Proc. Int. Conf. on Fatigue of metals. págs. 282-289.
- [77] **Materials, Research Group on Wear of Engineering.** *Wear and Lubrication. Glossary of Terms and Definitions in the Field of Friction.* Paris : Tribology O.E.S.D Publications, 1969.
- [78] **C. Tromas, J. Colin, C. Coupeau, J.C. Girard, J. Woirgard y J. Grilhè.** *Eur. Phys. J. Appl. Phys.* 8 (1999) 123.
- [79] **W.C. Oliver y G.M. Pharr.** *J. Mater Res.* 7, 1992.
- [80] **W.C. Oliver y G.M. Pharr** “Mechanical Properties and Deformation Behaviour of Materials Having ultra-fine Microstructures”, 1993.

- [81] **Brotzen P.R.** “International Materials Reviews”, 1994.
- [82] **Robert Danzer, Walter Harrer, Peter Supancic, Tanja Lube, Zhonghua Wang, Andreas Börger** “The ball on three balls test—Strength and failure analysis of different materials” Journal of the European Ceramic Society 27 (2007) 1481–1485
- [83] **Shetty, D. K., Rosenfield, A. R., McGuire, P., Bansal, G. K. and Duckworth, W. H.**, Biaxial flexure test for ceramics. Ceramic Bulletin, 1980, 59, 1193–1997
- [84] **Andreas Börger\***, **Peter Supancic, Robert Danzer**, “The ball on three balls testing of brittle discs: stress distribution in the disc”. Journal of the European Ceramic Society 22 (2002) 1425–1436
- [85] **Metals Handbook Ninth Edition**. Volume 17: “Nondestructive Evaluation and Quality Control”. 1989: p.235.
- [86] **ASTM B328-96**. “Standard Test Method for Density, Oil Content, and Interconnected Porosity of Sintered Metal Structural Parts and Oil-Impregnated Bearings”. Reapproved 2003.
- [87] **ASTM C373-88**. “Standard Test Method for Water Absortion, Bulk density, Apparent Porosity, and Apparent Specific Gravity of Fired Whiteware Products”. Reapproved 1999.
- [88] **Vander Voort, G.F.** “Metallography. Principles and practice” McGraw-Hill, New York, USA, (1984).
- [89] **Carvajal, C.** “Estudio de diversos factores que afectan a la medida de microdureza de polvos metálicos” Proyecto Fin de Carrera, Escuela Superior de Ingenieros, Sevilla, (2001).
- [90] “**Manual de Instrucciones USM 35**”: p.34-35.

## **Índice del capítulo VI: Bibliografía**

**VI.2. ¡Error! No se encuentra el origen de la referencia.**  
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