

CURRICULUM VITAE

PERSONAL INFORMATION

Name: FERNÁNDEZ GUILLERMET, Armando Jorge.

Born September 15, 1950, in Buenos Aires, Argentina.

Argentinian citizen.

Married to Carmen Cardona.

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PRESENT APPOINTMENTS

- Researcher, at the National Council for Scientific and Technological Research (CONICET), Argentina.
- Full Professor, School of Physics, Balseiro Institute, Bariloche, Argentina.

TITLES AND ACADEMIC QUALIFICATIONS (CRONOLOGY)

- High school studies in Industrial Chemistry. Professional School, Faculty of Exact, Physical and Natural Sciences, National University of Córdoba, Argentina, 1965-1968.
- Metallurgical Engineering, Catholic University of Córdoba, Argentina, 1969-1975. **Title:** Metallurgical Engineer, 1975.
- Physical Metallurgy, The Royal Institute of Technology, Stockholm, Sweden, 1983-1988. **Title:** Doctor of Philosophy (PhD) in the field of Physical Metallurgy, September 1988.

AWARDS AND DISTINCTIONS

- Prize Professional School, Faculty of Exact, Physical and Natural Sciences, National University of Córdoba, Argentina, (Gold medal), 1969.
- Prize Faculty of Engineering, Catholic University of Córdoba, Argentina, (Gold medal) 1975.
- **Docent** in Physical Metallurgy. The Royal Institute of Technology, Stockholm, Sweden. December 1988.
- **"Werner-Köster-Preis-94"** , Best Paper Award for 1994, given by the German Society for Materials and Carl-Hanser-Verlag. Title of the paper: "Thermodynamic Analysis of the Fe-N System Using the Compound Energy Model with Predictions of the Vibrational Entropy", published in Zeits.Metallkunde 3 (1994) 154-163, by A.Fernández Guillermet and H.Du.
- Prize for "Outstanding Performance in Teaching". Awarded by the Balseiro Foundation, Bariloche, Argentina, 1997.

PREVIOUS APPOINTMENTS (CRONOLOGY)

Research

- Materials Research Center (CIM-INTI), Córdoba, Argentina. Researcher: 01/10/1975-30/09/1979 and 01/01/1982- 25/08/1983.
- Department of Physical Metallurgy, The Royal Institute of Technology, Stockholm, Sweden. Visiting Researcher: 01/10/1979-31/12/1981. Research Assistant, 01/10/1983 -30/09/1988.

- National Council for Scientific and Technological Research (CONICET, Argentina) from 18/10/1988 and continuing.
- Department of Theoretical Physics, The Royal Institute of Technology, Stockholm, Sweden. Visiting Researcher at the "Theory of Materials Group", various periods between 1989 and 1994.

Teaching

- Faculty of Agronomy, Catholic University of Córdoba, Córdoba, Argentina. Acting Assistant Professor of Physics, 1975.
- School of Metallurgical Engineering, Faculty of Engineering, Catholic University of Córdoba, Argentina. Acting Assistant Professor of Physical Metallurgy II, 1977-1979. Acting Professor of Metallography I, 1978.
- School of Physics, Balseiro Institute, Bariloche, Argentina: Assistant Professor: 1991-1995. Associate Professor: 1995-1998. Full Professor since 1998.

SCIENTIFIC INTERESTS AND RESEARCH LINE

Scientific Fields and Disciplines

Thermodynamics of Complex Material Systems. Thermophysics and Thermochemistry of Solids. Physical Metallurgy. Physical Chemistry of Solids.

Specific Research Interests

Thermodynamics of equilibrium and transformations. Nonequilibrium processes. Phase diagrams and phase stability. Coupling of theory and experiments. Assessment. Models, equations of state and predictive methods. Factors affecting the relative stability of material phases: cohesive energy, vibrational and configurational entropy, magnetic effects. Structural properties of stable and metastable phases in materials systems: systematic aspects. Structure / bonding relations in alloys and compounds. Phase transitions in complex materials systems: statics, dynamics and characterization.

JOURNALS

- Associate Editor of "CALPHAD, The International Research Journal for Calculation of Phase Diagrams", Pergamon Press.
- Associate Editor of the Journal of Phase Equilibria, American Society for Metals.

TEACHING ACTIVITIES (CRONOLOGY)

- Courses on at the National Institute for Iron and Steelmaking (IAS), Buenos Aires, Argentina: Thermodynamics, 1978. Thermodynamics in Ironmaking, 1979. Short Course on Thermodynamics for Steelmaking, 1979. Thermodynamics, 1980. Thermodynamics, 1981.
- Courses at the Atomic Energy Commission of Argentina within the Program of Metallurgy and Materials. Buenos Aires, Argentina: Thermodynamics, 1983, 1990, 1991, 1993.
- "Thermodynamics and Phase Equilibria". Advanced undergraduate and graduate course. School of Physics, Balseiro Institute, Bariloche, Argentina. February-April 1991. February-May 1992. September-December 1992.

- "Thermodynamics and Phase Stability in Condensed Systems". Advanced undergraduate and graduate course. School of Physics, Balseiro Institute, Bariloche, Argentina. Part I: February -May 1993. Part II: September-December 1993.
- "Thermodynamics". Undergraduate course for students of physics and nuclear engineering. Balseiro Institute, Bariloche, Argentina. February-June 1994.
- "Thermodynamics of Phase Equilibrium and Transformations". Advanced undergraduate and graduate course. School of Physics, Balseiro Institute, Bariloche, Argentina. July-September 1994.
- "Thermodynamics". Undergraduate course for students of physics and nuclear engineering. Balseiro Institute, Bariloche, Argentina. February-June 1995. February-June 1996.
- "Thermodynamics". Undergraduate course for students of physics. Balseiro Institute, Bariloche, Argentina. February-June 1998, 1999, 2000, 2001.

SUPERVISION OF MSc THESES AND DIPLOMA WORKS IN PHYSICS AND MATERIALS SCIENCES (COMPLETED)

- Subject: "Martensitic Transformation and Relative Stability of the Fcc y Hcp Phases in Fe-Mn y Fe-Mn-Si Alloys".
MSc Thesis in Physics by Sonia M.Cotes. School of Physics, Balseiro Institute, Bariloche, Argentina, 1992. Supervisors: Dr. M. Sade and Dr. A. Fernández Guillermet
- Subject: "Relative Stability of the Fcc y Hcp Structures in Fe-Mn-X Type Alloys with X=Si, Co".
MScThesis in Physics by Alberto L. Baruj. School of Physics, Balseiro Institute, Bariloche, Argentina, 1993. Supervisors: Dr. M. Sade and Dr. A. Fernández Guillermet
- Subject: "Structural Properties and Stability of the Bcc and Omega Phases in Zr-Nb Alloys".
Diploma Work in Physical Sciences by Juan J. Pieres. University of Buenos Aires, Buenos Aires, Argentina, 1996. Supervisors: Dr. J.R. Granada and Dr. A. Fernández Guillermet.
- Subject: "Structural Properties and Stability of the Bcc, Hcp and Omega Phases in Alloys of the Ti-V System".
MSc Thesis in Materials Science by Gabriela Aurelio. University of Comahue, Neuquén, Argentina, 1999. Supervisor: Dr. A. Fernández Guillermet.

SUPERVISION OF PhD THESES IN PHYSICS (COMPLETED AND IN PROGRESS)

- Subject: "Phase Stability and Fcc/Hcp Martensitic Transformation in Fe-Mn and Fe-Mn-Si Alloys".

- PhD Thesis in Physics by Sonia M.Cotes. School of Physics, Balseiro Institute, Bariloche, Argentina, 1999. Supervisors: Dr.M. Sade and Dr. A. Fernández Guillermet.
- Subject: "Martensitic Transformation, Relative Stability of the Fcc y Hcp Phases and Effects of the Thermal Cycling in Fe-Mn-X Ternary Alloys (X=Co, Si) ".
PhD Thesis in Physics by Alberto L.Baruj. School of Physics, Balseiro Institute, Bariloche, Argentina, 1999. Supervisors: Dr. M.Sade and Dr. A.Fernández Guillermet
 - Subject: "Study of Structural Properties, Stability and Chemical Bonding of the Metastable Omega Phase in Transition Metals and Zr-Nb Alloys".
PhD Thesis in Physics by Gabriela B.Grad. School of Physics, Balseiro Institute, Bariloche, Argentina, 1999 Supervisor: Dr. A.Fernández Guillermet.
 - Subject: "Phase Stability and Martensitic Transformations in Fe Alloys: A Structural and Calorimetric Study ".
PhD Work **in progress** since 1997 by Pablo Marinelli. School of Physics, Balseiro Institute, Bariloche, Argentina. Supervisors: Dr. M.Sade and Dr. A.Fernández Guillermet.
 - Subject: "Phase Stability, Cohesion and Transformations of the Bcc Phase in Alloys of Ti, Zr and Hf".
PhD Work **in progress** since 1998 by Gabriela Aurelio. School of Physics, Balseiro Institute, Bariloche, Argentina. Supervisor: Dr. A.Fernández Guillermet.

LIST OF PUBLICATIONS AND REPORTS

1981

- 1."An Assessment of the Fe-S System using a Two-Sublattice Model for the Liquid Phase".
A. Fernández Guillermet, M. Hillert, B. Jansson and B. Sundman.
Metallurgical Transactions, 12B (1981) 745-754.

1982

- 2."An Assessment of the Fe-Mo System".
A. Fernández Guillermet.
Calphad, 6 (1982) 127-140.
- 3."The Fe-Mo System".
A. Fernández Guillermet.
Bulletin of Alloy Phase Diagrams, 3 (1982) 359-367.

1984

- 4."The Thermodynamic Properties of Iron Gas".
A. Fernández Guillermet and P.Gustafson.
Report Serie D, No.59, Division of Physical Metallurgy, The Royal Institute of Technology, 1984.

1985

- 5."An Assessment of the Thermodynamic Properties and the Phase Diagram of Iron".
A. Fernández Guillermet and P.Gustafson.
High Temperatures-High Pressures, 16 (1985) 591-610.
- 6."Partition of Sulphur, Silicon and Manganese Between Slag and Metal in the Blast-Furnace".

A. Fernández Guillermet and C.R. Oldani.
Latin American Journal of Metallurgy and Materials, 5 (1985) 41-51.

7. "Critical Evaluation of the Thermodynamic Properties of Molybdenum".
A. Fernández Guillermet.
International Journal of Thermophysics, 6 (1985) 367-393.

8. "The Representation of Thermodynamic Properties at High Pressures".
A. Fernández Guillermet, P. Gustafson and M. Hillert.
Journal of Physics and Chemistry of Solids, 46 (1985) 1427-1429.

9. "A Compound-Energy Model of Ordering in a Phase With Sites of Different Coordination Numbers".
J-O. Andersson, A. Fernández Guillermet, M. Hillert, B. Jansson and B. Sundman.
Acta Metallurgica, 34 (1985) 437-445.

1986

10. "Experimental and Theoretical Study of the Phase Equilibria in the Fe-Ni-W System".
A. Fernández Guillermet and L. Östlund.
Metallurgical Transactions, 17A (1986) 1809-1823.

11. "Experimental and Theoretical Study of the Phase Equilibria in the Fe-Ni-W-C System at 1273 K".
A. Fernández Guillermet.
High Temperature Science, 22 (1986) 161-177.

12. "En Studie av Fasjämvikterna i Systemet Fe-Ni-W-C".
P. Gustafson, M. Hillert, A. Fernández Guillermet and C. Westman.
Jernkontorets Annaler, 6 (1986) 42-44.

13. "The Pressure Dependence of the Expansivity and of the Anderson-Grüneisen Parameter in the Murnaghan Approximation".
A. Fernández Guillermet.
Journal of Physics and Chemistry of Solids, 47 (1986) 605-607.

14. "The Fe-Mo System".
A. Fernández Guillermet.
in "Binary Alloy Phase Diagrams", edited by T.B. Massalski, J.L. Murray, L.H. Bennett and H. Baker.
American Society for Metals, Metals Park, Ohio 44073, 1986, Vol.1, pp.1079-1080.

15. "Critical Evaluation of the Thermodynamic Properties of Cobalt".
A. Fernández Guillermet.
Report Trita-Mac-0308, The Royal Institute of Technology, Stockholm, Sweden, 1986.

1987

16. "Critical Evaluation of the Thermodynamic Properties of Zirconium".
A. Fernández Guillermet.
High Temperatures-High Pressures, 19 (1987) 119-160.

17. "Critical Evaluation of the Thermodynamic Properties of Cobalt".
A. Fernández Guillermet.
International Journal of Thermophysics, 8 (1987) 481-510.

18. "On the Use of Shock-Wave Data in Evaluations of Thermodynamic Properties".
A. Fernández Guillermet.
Journal of Physics and Chemistry of Solids, 48 (1987) 819-825.
19. "On the Use of Grüneisen Parameters in the Treatment of Shock-Wave Data"
A. Fernández Guillermet.
International Journal of Thermophysics, 8 (1987) 751-761.
20. "The Representation of Volume Effects in Assessments of the Thermodynamic Properties of Ferromagnetic Elements".
A. Fernández Guillermet.
High Temperatures-High Pressures, 19 (1987) 639-652.
21. "Thermodynamic Properties of Tungsten".
G. Grimvall, M. Thiessen and A. Fernández Guillermet.
Physical Review B, 36 (1987) 7816-7826.
22. "A New Method of Describing Lattice-Stabilities".
J-O. Andersson, A. Fernández Guillermet, P. Gustafson, M. Hillert and B.Jansson.
Calphad, 11 (1987) 95-100.
23. "An Assessment of the Fe-Ni-W-C Phase Diagram".
A. Fernández Guillermet.
Zeitschrift für Metallkunde, 78 (1987) 165-171.
24. "Use of Phase Diagram Calculations in Selecting the Composition of Fe-Ni Bonded WC Tools".
A. Fernández Guillermet.
International Journal of Refractory and Hard Metals, 6 (1987) 24-27.
25. "Assessment of the Thermodynamic Properties of the Ni-Co System".
A. Fernández Guillermet.
Zeitschrift für Metallkunde, 78 (1987) 639-647.
26. "Thermodynamic Analysis of the Co-C System".
A. Fernández Guillermet.
Zeitschrift für Metallkunde, 78 (1987) 700-709.
27. "Critical Evaluation of the Thermodynamic Properties of the Iron-Cobalt System".
A. Fernández Guillermet.
High Temperatures-High Pressures, 19 (1987) 477-499.
28. "On the Lattice-Stability of Cr, Mo and W".
J-O. Andersson, A. Fernández Guillermet and P. Gustafson.
Calphad, 11 (1987) 361-364.
- 1988**
29. "CALPHAD Estimates of the Lattice Stabilities for High-Melting Bcc Metals: V, Nb and Ta".
A. Fernández Guillermet and W. Huang.
Zeitschrift für Metallkunde, 79 (1988) 88-95.
30. "Thermodynamic Properties of the Fe-Co-C System".
A. Fernández Guillermet

Zeitschrift für Metallkunde, 79 (1988) 317-329.

31. "Thermodynamic Calculation of the Fe-Co-W Phase Diagram".

A. Fernández Guillermet.

Zeitschrift für Metallkunde, 79 (1988) 633-642.

32. "Thermodynamics of the Co-Ni-W System: A preliminary CALPHAD Analysis".

A. Fernández Guillermet

Report Trita-Mac-0373, The Royal Institute of Technology, Stockholm, Sweden, 1988.

33. "Thermodynamic Properties of the Fe-Co-Ni-C System".

A. Fernández Guillermet

Zeitschrift für Metallkunde, 79 (1988) 524-536.

34. "A Thermodynamic Analysis of the CALPHAD Approach to Phase Stability of the Transition Metals".

A. Fernández Guillermet and M.Hillert

Calphad, 12 (1988) 337-349.

1989

35. "Composition Dependence of the Curie Temperature of Co-W-C Alloys Predicted from Thermodynamic Data".

A. Fernández Guillermet.

Zeitschrift für Metallkunde, 80 (1989) 549-555.

36. "Assessing the Thermodynamics of the Fe-Co-Ni System using a CALPHAD Predictive Technique".

A. Fernández Guillermet.

Calphad, 13 (1989) 1-22.

37. "The Co-Fe-Ni-W-C Phase Diagram: A Thermodynamic Description and Calculated Sections for (Co-Fe-Ni)-Bonded Cemented WC Tools".

A. Fernández Guillermet.

Zeitschrift für Metallkunde, 80 (1989) 83-94.

38. "Thermodynamic Properties of Technetium".

A. Fernandez Guillermet and G.Grimvall.

Journal of the Less-Common Metals, 147 (1989) 195-211.

39. "Thermodynamic Properties of the Co-W-C System".

A.Fernández Guillermet.

Metallurgical Transactions, 20A (1989) 935-956.

40. "Homology of Interatomic Forces and Debye Temperatures in Transition Metals".

A.Fernández Guillermet and G.Grimvall.

Physical Review B, 40 (1989) 1521-1527.

41. "Thermodynamic Analysis of Manganese".

A. Fernández Guillermet and W.Huang.

Report Trita-Mac-0396, The Royal Institute of Technology, Stockholm, Sweden, 1989.

42. "Cohesive Properties and Vibrational Entropy of 3d-Transition Metal Compounds: MX (NaCl) Compounds (X = C,N,O,S), Complex Carbides and Nitrides".

A. Fernández Guillermet and G. Grimvall.
Physical Review B, 40 (1989) 10582-10593.

1990

43. "Mechanism of Widmanstätten Plate Formation in Chromium-rich Cr-Ni Alloys".
M. Kikuchi, A. Fernández Guillermet, M. Hillert, G. Cliff and G.W. Lorimer.
Acta Metallurgica et Materialia, 38 (1990) 165-171.

44. "Correlations for Bonding Properties and Vibrational Entropy in 3d-Transition Metal Compounds, with Application to the CALPHAD Treatment of a Metastable Cr-C Phase".
A. Fernández Guillermet and G. Grimvall.
Zeitschrift für Metallkunde, 81 (1990) 521-524.

45. "Thermodynamic Analysis of Manganese".
A. Fernández Guillermet and W. Huang.
International Journal of Thermophysics, 11 (1990) 949-969.

1991

46. "Thermodynamic Properties of Ni Nitrides and Phase Stability in the Ni-N System".
A. Fernández Guillermet and K. Frisk.
International Journal of Thermophysics, 12 (1991) 417-431.

47. "Thermodynamic Analysis of Stable and Metastable Carbides in the C-Mn-V System and Predicted Phase Diagram".
A. Fernández Guillermet and W. Huang.
International Journal of Thermophysics, 12 (1991) 1077-1102.

48. "Phase Stability Properties of Transition Metal Diborides".
G. Grimvall and A. Fernández Guillermet.
in "Boron-rich Solids", edited by D.Emin, T.L.Aselage, A.C.Switendick, B. Morosin and C.L.Beckel. AIP Proceedings 231. American Institute for Physics, New York, 1991, pp.423-430.

49. "Bonding Properties and Vibrational Entropy of Transition Metal MeB_2 (AlB_2) Diborides".
A. Fernández Guillermet and G. Grimvall.
Journal of the Less-Common Metals, 169 (1991) 257-281.

50. "Predictive Approach to Thermodynamic Properties of the Metastable Cr_3C Carbide".
A. Fernández Guillermet.
International Journal of Thermophysics, 12 (1991) 919-936.

51. "Thermodynamic Analysis of Stable Phases in the Zr-Nb System and Calculation of the Phase Diagram".
A. Fernández Guillermet.
Zeitschrift für Metallkunde, 82 (1991) 478-487.

52. "Band Structure and Cohesive Properties of 3d-transition-metal Carbides and Nitrides with the NaCl-type Structure".
J. Häglund, G. Grimvall, T. Jarlborg and A. Fernández Guillermet.
Physical Review B, 43 (1991), 14400-14408.

53. "Analysis of Thermodynamic Properties of Molybdenum and Tungsten at High Temperatures".
A. Fernández Guillermet and G. Grimvall.
Physical Review B, 44 (1991), 4332-4340.

1992

54. "Systematics of Bonding Properties and Vibrational Entropy in Compounds".

G. Grimvall and A. Fernández Guillermet.

Advances in Physical Geochemistry, Volume 10, "Thermodynamic Data: Systematics and Estimation", S. Saxena, editor, Springer Verlag, 1992, pp.270-282.

55. "Cohesive Properties and Vibrational Entropy of 3d-Transition Metal Carbides".

A. Fernández Guillermet and G. Grimvall.

Journal of Physics and Chemistry of Solids, 53 (1992), 105-125.

56. "Predictive Approach to Thermodynamic Properties of Co Nitrides and Phase Stability in the Co-N System".

A. Fernández Guillermet and S. Jonsson.

Zeitschrift für Metallkunde, 83 (1992), 21-31.

57. "Thermodynamic Analysis of the Fe-Co-N System and Predictive Approach to the Phase Diagram".

A. Fernández Guillermet and S. Jonsson.

Zeitschrift für Metallkunde, 83 (1992), 165-175.

58. "Cohesive Properties of 4d-Transition Metal Carbides and Nitrides with the NaCl-type Structure".

A. Fernández Guillermet, J. Häglund and G. Grimvall.

Physical Review B, 45 (1992), 11557-11567.

1993

59. "Predictive Approach to the Entropy of Manganese and Calculation of the Mn-N Phase Diagram".

C. Qiu and A. Fernández Guillermet.

Zeitschrift für Metallkunde, 84 (1993), 11-22.

60. "Thermodynamic Analysis of Stable and Metastable W Nitrides and Calculation of the W-N Phase Diagram".

A. Fernández Guillermet and S. Jonsson.

Zeitschrift für Metallkunde, 84 (1993), 106-117.

61. "Spin Fluctuations in Paramagnetic Chromium from Entropy Considerations".

G. Grimvall, J. Häglund and A. Fernández Guillermet.

Physical Review B, 47 (1993) 15338-15341.

62. "Phase Diagrams and Band Structure of Transition Metal Compounds".

G. Grimvall, J. Häglund, and A. Fernández Guillermet.

Proceedings of the International Conference on the Physics of Transition Metals, ICPTM'92. Edited by P.M. Oppeneer and J. Kübler. World Scientific, Singapore, 1993, pp.280-285.

63. "The Fe-Mo System"

A. Fernández Guillermet

in "Phase Diagrams of Binary Iron Alloys", edited by H. Okamoto. American Society for Metals, Metals Park, Ohio 44073, 1993, pp.214-221.

64. "Cohesive Properties and Electronic Structure of 5d-transition Metal Carbides and Nitrides with the NaCl-type Structure".

A. Fernández Guillermet, J. Häglund and G. Grimvall.
Physical Review B, 48 (1993) 11673-11684.

65. "Theory of Bonding in Transition Metal Carbides and Nitrides".
J. Häglund, A. Fernández Guillermet, G. Grimvall and M. Körling.
Physical Review B, 48 (1993) 11685-11691.

1994

66. "The Gibbs Energy of Transition Metal Compounds".
G. Grimvall, J. Häglund and A. Fernández Guillermet.
Proceedings of the NATO Advanced Study Institute on Statics and Dynamics of Alloy Phase Transformations, Rhodes, Greece, June 21- July 3, 1992. Edited by P.E.A.Turchi and A.Gonis. Plenum Press, New York, 1994, pp.567-570.

67. "Thermodynamic Analysis of the Fe-N System using the Compound-Energy Model with Predictions of the Vibrational Entropy".
A. Fernández Guillermet and H.Du.
Zeitschrift für Metallkunde, 85 (1994) 154-163.

68. "Thermochemical Assessment and Systematics of Bonding Strengths in Solid and Liquid "MeN" 3d-transition Metal Nitrides".
A. Fernández Guillermet and K.Frisk.
Journal of Alloys and Compounds, 203 (1994) 77-89

69. "Correlation and Prediction of Parameters Related to Vibrational Properties of Compounds".
G.Grimvall and A.Fernández Guillermet.
International Journal of Thermophysics, 15 (1994) 1353-1360.

1995

70. "Structural Properties and Stability of the Bcc and Omega Phases in the Zr-Nb System: I. Neutron Diffraction Study of a Quenched and Aged Zr-10wt% Nb Alloy".
G.J. Cuello, A. Fernández Guillermet, G.B. Grad, R.E. Mayer and J.R. Granada.
Journal of Nuclear Materials, 218 (1995) 236-246.

71. "Analysis of Thermochemical Properties and Phase Stability in the Zirconium-Carbon System".
A.Fernández Guillermet.
Journal of Alloys and Compounds, 217 (1995) 69-89.

72. "Thermodynamic Properties of the Generalized Murnaghan Equation of State of Solids".
A.Fernández Guillermet.
International Journal of Thermophysics, 16 (1995) 1009-1026.

73. "Thermodynamics of the Fcc/Hcp Martensitic Transformation in Fe-Mn Alloys: Modelling of the Driving Force, and Calculation of the M_s and A_s Temperatures".
S.Cotes, A.Baruj, M.Sade and A.Fernández Guillermet.
Journal de Physique IV, Colloque C2, 5 (1995) 83-88.

74. "Phase Diagram and Thermochemical Properties of the Zr-Ta System: An Assessment based on Gibbs Energy Modelling".
A.Fernández Guillermet.
Journal of Alloys and Compounds, 226 (1995) 174-184.

75. "Systematics of Lattice Parameters and Bonding Distances of the Omega Phase in Zr-Nb Alloys".

G.B.Grad, J.J.Pieres, A.Fernández Guillermet, G.J.Cuello, J.R.Granada and R.E.Mayer.
Physica B, 213-214 (1995) 433-435.

76. "Fcc/hcp Martensitic Transformation Temperatures in the Fe-Mn System: Experimental Study and Thermodynamic Analysis of Phase Stability".

S. Cotes, M. Sade and A. Fernández Guillermet.
Metallurgical Transactions A, 26A (1995) 1957-1969.

77. "Lattice Parameter of the Zr-Nb Bcc Phase: Neutron Scattering Study and Assessment of Experimental Data".

G.B.Grad, J.J.Pieres, A.Fernández Guillermet, G.J.Cuello, R.E.Mayer and J.R.Granada.
Zeitschrift für Metallkunde, 86 (1995) 395-400.

78. "Gibbs Energy Modelling of the Phase Diagram and Thermochemical Properties of the Hf-Ta System".

A.Fernández Guillermet.
Zeitschrift für Metallkunde, 86 (1995) 382-387.

79. "Phase Stabilities in the Pt-W System: Thermodynamic and Electronic Structure Calculations".

A.Fernández Guillermet, V.Ozolins, G.Grimvall and M.Körling.
Physical Review B, 51 (1995) 10364-10374.

80. "Coupling Binary and Ternary Information in Assessing the Fcc/Hcp Relative Stability and Martensitic Transformation in Fe-Co-Mn and Fe-Mn-Si Alloys".

A.Baruj, S.Cotes, M.Sade and A.Fernández Guillermet.
Journal de Physique IV, Colloque C8, 5 (1995) 373-378.

81. "Periodic System Effects".

F.Aldinger, A.Fernández Guillermet, V.S.Iorich, L.Kaufman, W.Alan Oates, H.Ohtani, M.Rand and M.Schalin.
Calphad, 19 (1995) 555-571.

82. "Estimation of Enthalpies and Entropies of Transformation and Trends in the Periodic Chart for the Variation of Thermodynamic Properties".

B.Burton, T.G.Chart, H.L.Lukas, A.D.Pelton, H.Seifert, P.J.Spencer, F.Aldinger, A.Fernández Guillermet, V.S.Iorich, L.Kaufman, W.Alan Oates, H.Ohtani, M.Rand and M.Schalin.
Calphad, 19 (1995) 538-553.

1996

83. "Gibbs Energy Coupling of Phase Stability and Thermochemistry in the Hf-Nb System".

A.Fernández Guillermet.
Journal of Alloys and Compounds, 234 (1996) 111-118.

84. "Using Calculated Phase Diagrams in the Selection of the Composition of Cemented WC Tools with a Co-Fe-Ni Binder Phase".

A. Fernández Guillermet.
in "The SGTE Casebook. Thermodynamics at Work", edited by K. Hack. Materials Modelling Series, Book No.621. The Institute of Materials, UK, 1996, pp.77-84.

85. "Gibbs Energy Coupling of the Phase Diagram and Thermochemistry in the Tantalum-Carbon System".

K.Frisk and A.Fernández Guillermet.
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