

# Publications 1976 - 2009

## Thesis

Application of Computer Techniques on the Treatment of the Thermodynamics of Alloys. March 9, 1981, Royal Institute of Technology, Stockholm Sweden.

## Papers published in refereed journals

1. Mats Hillert and Bo Sundman, A treatment of the Solute Drag on Moving Grain Boundaries and Phase Interfaces in Binary Alloys in *Acta Met.*, 24 (1976) 731-743.
2. Mats Hillert and Bo Sundman, A Solute Drag treatment of the Transition from Diffusion-controlled to Diffusionless Solidification in *Acta Met.*, 25 (1977) 11-18.
3. Bo Sundman and John Ågren, A Regular Solution Model for Phases with several Components and Sublattices, suitable for Computer Applications in *J. Phys. Chem. Solids*, 42 (1981) 297-301.
4. Armando Fernandez Guillermet, Mats Hillert, Bo Jansson and Bo Sundman, An Assessment of the Fe-S System using a Two-Sublattice Model for the Liquid Phase in *Met. Trans. B*, 12B (1981) 745-754.
5. Staffan Hertzman and Bo Sundman, A Thermodynamic Analysis of the Fe-Cr System in *Calphad*, 6 (1982) 67-80.
6. Lydon J. Swartzendruber and Bo Sundman, The Fe-Ru (Iron-Ruthenium) System, in *Bull. of Alloy Phase Diagrams*, 4 (1983) 155-160.
7. Lydon J. Swartzendruber and Bo Sundman, The Fe-Os (Iron-Osmium) system in *Bull. of Alloy Phase Diagrams*, 4 (1983) 396-399.
8. Jan-Olof Andersson, Per Gustafson, Mats Hillert, Bo Jansson, Bo Sundman and John Ågren, The Ferrite/Austenite Equilibrium in Silicon Steels in *Metal Science*, 18 (1984) 501-502.
9. Mats Hillert, Bo Jansson, Bo Sundman and John Ågren, A Two-Sublattice Model for Molten Solutions with Different Tendency for Ionization in *Met. Trans. A*, 16A (1985) 261-266.
10. Bo Sundman, Bo Jansson and Jan-Olof Andersson, The Thermo-Calc Databank System in *Calphad*, 9 (1985) 153-190.
11. Staffan Hertzman and Bo Sundman, A Thermodynamic Analysis of the Fe-Cr-Ni System in *Scand. J Metallurgy*, 14 (1985) 94-102.

12. Jan-Olof Andersson, Armando Fernandez Guillermet, Mats Hillert, Bo Jansson and Bo Sundman, A Compound-Energy Model of Ordering in a Phase with Sites of Different Coordination Numbers in *Acta Met.*, 34 (1986) 437-445.
13. Ibrahim Ansara and Bo Sundman, The Scientific Group Thermodata Europe, in *Computer Handling and Dissemination of Data*. Ed P S Glaser Elsevier Science Publishers, CODATA, (1987) 154-158.
14. Jan-Olof Andersson and Bo Sundman, Thermodynamic Properties of the Cr-Fe System in *Calphad*, 11 (1987) 83-92.
15. Jan-Olof Andersson, Armando Fernandez Guillermet, Per Gustafson, Mats Hillert, Bo Jansson, Björn Jönsson, Bo Sundman and John Ågren, A New Method of Describing Lattice Stabilities in *Calphad*, 11 (1987) 93-98.
16. Ibrahim Ansara, Bo Sundman and Pascal Willemin, Thermodynamic Modeling of Ordered Phases in the Ni-Al System in *Acta Met.*, 36 (1988) 977-982.
17. Mats Hillert, Bo Jansson and Bo Sundman, Application of the Compound-Energy model to Oxide Systems in *Z Metallkde*, 79 (1988) 81-87.
18. J. P. Gros, B. Sundman and I. Ansara, Thermodynamic Modelling of the Ti-rich Phases in the Ti-Al System in *Scripta Met.*, 22 (1988) 1587-1591.
19. Bo Sundman and Tetsu Mohri, Implementation of Cluster Variation Method in the Framework of a General Thermodynamic Databank in *Z Metallkde.*, 81 (1990) 251-254.
20. Mats Hillert, Bo Sundman and Xizhen Wang, An Assessment of the CaO-SiO<sub>2</sub> System in *Met. Trans. B*, 21B (1990) 303-312.
21. Mats Hillert, Bo Jansson and Bo Sundman, A Model for Silicate Melts in *Met. Trans. B*, 21B (1990) 404-406.
22. Mats Hillert, Malin Selleby and Bo Sundman, An Assessment of the Ca-Fe-O System in *Met. Trans. A*, 21A (1990) 2759-2776.
23. Mats Hillert and Bo Sundman, Scheil Reaction Scheme by Computer in *Calphad*, 14 (1990) 111-114.
24. Bo Sundman, Review of Alloys Modelling in *Anales de Fisica, Serie B*, 86 (1990) 69-82.
25. Bo Sundman, Modification of the Two-sublattice Model for Liquids, in *Calphad*, 15 (1991) 109-119.

26. Mats Hillert, Bo Sundman, Xizhen Wang and Tom Barry, A Reevaluation of the Rankinite Phase in the CaO-SiO<sub>2</sub> system in *Calphad*, 15 (1991) 53-58.
27. Bo Sundman, An Assessment of the Fe-O System in *Journal of Phase Equilibria*, 12 (1991) 127-140.
28. Bo Sundman, Thermodynamic Databanks, Visions and Facts in *Scand Journal of Metallurgy*, 20 (1991) 79-85.
29. Jacques Lacaze and Bo Sundman, An Assessment of the Fe-C-Si System in *Met. Trans A*, 22A (1991) 2211-2223.
30. Mats Hillert, Stefan Jonsson and Bo Sundman, Thermodynamic Calculation of the Si-N-O system in *Z. Metallkunde*, 83 (1992) 648-654.
31. T I Barry, A T Dinsdale, J A Gisby, B Hallstedt M Hillert, B Jansson, S Jonsson, B Sundman and J R Taylor, The Compound Energy Model for Ionic Solutions with Applications to Solid Oxides, in *J of Phase Equilibria*, 13 (1992) 459-476.
32. Minsheng Wang and Bo Sundman, Thermodynamic Assessment of the Mn-O System in *Met. Trans B*, 23B (1992) 821-831.
33. Pingfang Shi, Surendra K Saxena and Bo Sundman, Sublattice Solid Solution Model and its Application to Orthopyroxene (Mg,Fe)<sub>2</sub>Si<sub>2</sub>O<sub>6</sub>. in *Phys Chem Minerals*, (1992) 393-405.
34. Bo Sundman, Thermodynamics for Materials Design, in *J Chim Phys*, 90 (1993) 275-280.
35. Bo Jansson, Mikael Schalin, Malin Selleby and Bo Sundman, The Thermo-Calc Database System, in *Computer Software in Chemical and Extractive Metallurgy*. Eds C W Bale and G A Irons, The Met Soc of CIM, Quebec, (1993) 57-71.
36. Bo Sundman, Bo Jansson and Mikael Schalin, Thermodynamic Calculations Made Easy in *J of Phase Equilibria*, 14 (1993) 557-562.
37. Bengt Hallstedt, Mats Hillert, Malin Selleby and Bo Sundman, Modelling of Acid and Basic Slags, in *Calphad*, 18 (1994) 31-38.
38. Pingfang Shi, Surendra K Saxena, Z Zhang and Bo Sundman, Thermodynamics of the Ca-Mg-Fe-Al-Si-O Pyroxenes: I. Theoretical Model and Assessment of the Ca-Mg-Si-O System, in *Calphad*, 18 (1994) 47-69.
39. V Swamy, S K Saxena and B Sundman, An Assessment of the One-bar Liquidus Phase Relations in the MgO-SiO<sub>2</sub> System, in *Calphad*, 18 (1994) 157-164.

40. I Ansara, C Chatillon, H L Lukas T Nishizawa, H Ohtani, K Ishida, M Hillert, B Sundman, B B Argent, A Watson, T G Chart and T Anderson, A Binary Database for III-V Compound Semiconductor Systems, in Calphad, 18 (1994) 177-222.
41. V Swamy, S K Saxena, B Sundman and J Zhang, A thermodynamic Assessment of Silica Phase Diagrams, in J Geophys Research, 99 (1994) 11787-11794.
42. Benyan Pei, Bo Björkman, Bo Sundman and Bo Jansson, Thermodynamic Assessment of the Fe-As System using an Ionic 2-sublattice model for the liquid phase, in Z Metallkde 85 (1994) pp 171-177.
43. Benyan Pei, Bo Björkman, Bo Sundman and Bo Jansson, Thermodynamic Assessment of the Cu-As System using an Ionic 2-sublattice model for the liquid phase, in Z Metallkde 85 (1994) pp 178-184.
44. Benyan Pei, Bo Björkman, Bo Sundman and Bo Jansson, A Thermodynamic Assessment of the Iron-Antimony System, in Calphad, 19 (1995) 1-16.
45. Zi-kui Liu, Weijing Zhang and Bo Sundman, Thermodynamic Assessment of the Co-Fe-Gd systems, in J of Alloys and Compounds, 226 (1995) 33-45.
46. Lucia Dumitrescu and Bo Sundman, Computer Simulation of the  $\beta'$ -Sialon Synthesis, in J European Ceramic Society, 15 (1995) 89-94.
47. Lucia Dumitrescu and Bo Sundman, A Thermodynamic Reassessment of the Si-Al-O-N System, in J European Ceramic Society, 15 (1995) 239-247.
48. A Boudéne, K Hack, A Mohammad, D Neuschütz, E Zimmermann, G Effenberg, S Fries, H-L Lukas, R A Konetzki, R Schmid-Fetzer, W Huang, B Sundman, C Bernard, C Colinet, A Pasturel, A Pisch, F Weiss, A Rais, M Ganteaume, J C Mathieu, J Rogez, B B Argent, A T Dinsdale and A Watson, Thermodynamic Measurements and Assessment of the Phase Diagrams in the System Y-Ba-Cu-O, in High Temperature and Materials Science, 35 (1995) 159-179.
49. M Hillert, M Selleby and B Sundman, Reassessment of the Non-Stoichiometry of Fayalite, in Phys Chem Minerals, 23 (1996) 387-390.
50. B Sundman, Implementation of the Ising Model in the Compound Energy Method, in Z Metallkd, 87 (1996) 529-534.
51. Pingfang Shi, S K Saxena, Zheru Zhang and B Sundman, Re-assessment of the Ca-Mg-Si-O Pyroxenes, in Calphad, 20 (1996) 93-94.
52. M Selleby and B Sundman, A Reassessment of the Ca-Fe-O system, in Calphad, 20 (1996) 381-392.

53. Kamal Mahdouk, Bo Sundman and Jean-Claude Gachon, New results about the Osmium-Zirconium system, in *J Alloys and Compounds*, 241 (1996) 199-209.
54. M Lindholm and B Sundman, A Thermodynamic Evaluation of the Nickel-Silicon System, *Met Trans A*, 27A, (1996) 2897-2903
55. O B Fabrichnaya and B Sundman, The Assessment of Thermodynamic Parameters in the Fe-O and Fe-Si-O systems, in *Geochimica and Cosmochimica Acta*, 61 (1997) 4539-4555.
56. N Dupin, I Ansara, H L Lukas and B Sundman, An assessment of the Al-Ni system, in *J Alloys and Compounds*, 247 (1997) 20-30.
57. A D Pelton, M Blander, M T Clavaguera-Mora, M Hoch, L Höglund, H L Lukas, P Spencer and B Sundman, Thermodynamic modelling of solutions and alloys, in *Calphad*, 21 (1997) 155-170.
58. N A Dubrovinskaia, L S Dubrovinsky, S K Saxena and B Sundman, Thermal Expansion of Chromium (Cr) to Melting Temperature, in *Calphad* 21 (1997) 497-508.
59. I Ansara, N Dupin and B Sundman, Reply to paper "When is a Compound Energy not a Compound Energy? A critique of the 2-sublattice order/disorder model", in *Calphad* 21 (1997) 535-542.
60. Q. Chen and B. Sundman, Thermodynamic Assessment of the Al-Ti-N System, in *J. Phase Equilibria*, 19, (1998) 146-153.
61. S G Fries, H L Lukas, I Ansara and B Sundman, The Bragg-William-Gorsky (BWG) Ordering Treatment in the Compound Energy Formalism (CEF), in *Ber. Bunsenges. Phys Chem*, 102 (1998) 1102-1110.
62. A Kusoffsky and B Sundman, Thermodynamic Modelling of Short Range Order using the Compound Energy Formalism, in *Ber. Bunsenges. Phys Chem*, 102 (1998) 1111-1115.
63. Q Chen, M Hillert, B Sundman, W A Oates, S G Fries and R Schmid-Fetzer, Phase Equilibria, Defect Chemistry and Semiconducting Properties of CdTe(s) – Thermodynamic Modeling, in *J of Electronic Materials*, 27 (1998) 961-971.
64. A Kusoffsky and B Sundman, Irregular Composition Dependence of the Configurational Heat Capacity in the Modelling of Ordered Alloys, in *J Phys Chem Solids*, 59 (1998) 1549-1554.
65. Bo Sundman, Suzana G Fries and W Alan Oates, A Thermodynamic Assessment of the Au-Cu system, in *Calphad*, 22 (1998) 335-354.

66. B. Sundman, S.G. Fries and W. A. Oates, Incorporation of cluster expansion theory into the Compound Energy Formalism, in *Calphad*, 22 (1998) 355-357.
67. C Toffolon, C Servant and B Sundman, Thermodynamic Assessment of the Nb-Sn System, in *J Phase Equil*, 19 (1998) 479-485.
68. A Kusoffsky and B Sundman, A Simplified Short Range Order Model Suitable for Multicomponent Alloys, in *Z Metallkde*, 89 (1998) 836-839.
69. Ikuo Ohnuma, Osamu Ikeda, Ryosuke Kainuma, Bo Sundman and Kiyohito Ishida, Interaction between Magnetic and Chemical Ordering using the Compound Energy Model, in *Z. Metallkde*, 89 (1998) 847-854.
70. B. Sundman, S.G. Fries and W. A. Oates, CALPHAD-Type Assessment of the Au-Cu System using the Cluster Variation Method, in *Z. Metallkde*, 90 (1999) 267-273.
71. L.F.S. Dumitrescu, M. Hillert and B. Sundman, A Reassessment of Ti-C-N based on a Critical Review of Available Assessments of Ti-N and Ti-C, in *Z. Metallkde*, 90 (1999) 534-541.
72. W. Tang, B. Sundman, R. Sandström and C. Qiu, New Modelling of the B2 phase and its associated Martensitic Transformation in the Ti-Ni system, in *Acta Mater.* 47 (1999) 3457-3468.
73. N A Dubrovinskaia, L S Dubrovinsky, S K Saxena, M Selleby and B Sundman, Thermal expansion and compressibility of  $\text{Co}_6\text{W}_6\text{C}$ , in *J of Alloys and Compounds*, 285 (1999) 242-245.
74. N A Dubrovinskaia, L S Dubrovinsky, A Karlsson, S K Saxena and B Sundman, Experimental study of thermal expansion and phase transformations in iron-rich Fe-Al alloys, in *Calphad*, 23 (1999) 69-84.
75. B Sundman and J Ågren, Computer Applications in the development of Steels, *MRS Bull*, 24 (1999) 32-36.
76. U R Kattner, G Eriksson, I Hahn, R Schmid-Fetzer, B Sundman, V Swamy, A Kussmaul, P J Spencer, T J Andersson, T G Chart, A Costa e Silva, B Jansson, B-J Lee and M Schalin, Use of thermodynamic software in process modelling and new applications of thermodynamic calculations, in *Calphad*, 24 (2000) 55-94.
77. Niklas Ahlen, Mats Johnsson, Ann-Kristin Larsson, Bo Sundman, On the carbothermal vapour-liquid-solid (VLS) mechanism for TaC, TiC and  $\text{Ta}_x\text{Ti}_{1-x}\text{C}$  whisker growth, in *J European Ceramic Society*, 20 (2000) 2607-2618.

78. I Ansara and B Sundman, Calculation of the Magnetic Contribution for Intermetallic Compounds, in *Calphad*, 24 (2000) 181-182.
79. Q Chen and B Sundman, Calculation of Debye temperature for chrystalline structures – a case study on Ti, Zr and Hf, in *Acta Mater.*, 49 (2001) 947-961.
80. N Dupin and B Sundman, A thermodynamic database for Ni-base superalloys, in *Scand J Metall* 30 (2001) 184-192.
81. C Servant, B Sundman and O Lyon, Thermodynamic Assessment of the Cu-Fe-Ni System, *Calphad*, 25 (2001) 79-95.
82. N Dupin, I Ansara and B Sundman, Thermodynamic Re-assessment of the Ternary Al-Cr-Ni, in *Calphad*, 25 (2001) 279-298.
83. H H Mao, B Sundman, Z W Wang and S K Saxena, Volumetric properties and phase relations of silica - thermodynamic assessment, in *J of Alloys and Compounds* 327, (2001), 253-262
84. B Sundman, I Ansara, M Hillert, G Inden, H-L Lukas and K C Hari Kumar, Contributions to the thermodynamic modelling of solutions, in *Z Metallkd.* 92 (2001) 526-532
85. R J Perez, B Sundman, Thermodynamic assessment of the Cr-Sn binary system, in *Calphad* 25 (2001) 59-66
86. P Fredriksson and B Sundman, A thermodynamic assessment of the Fe-Pt system, in *Calphad* 25 (2001) 535-548
87. Qing Chen and Bo Sundman, Modeling of Thermodynamic properties for bcc, fcc, liquid and amorpheous Iron, *J of Phase Equilibria*, **22** (2001) 631-644
88. A Kusoffsky, N Dupin and B Sundman, On the compound energy formalism applied to fcc ordering, in *Calphad* 25 (2001) 549-566
89. M Hillert and B Sundman, Predicting miscibility gaps in reciprocal liquids, in *Calphad* 25 (2001) 599-606
90. K Frisk, L Dumitrescu, M Ekroth, B Jansson, O Kruse and B Sundman, Development of a Database for Cemented Carbides: Thermodynamic Modelling and Experiments, in *J of Phase Eq.* 22 (2001) 645-655
91. Ikuo Ohnuma, H Enoki, Osamu Ikeda, Ryosuke Kainuma, Hiroshi Ohtani, Bo Sundman and Kiyohito Ishida, Phase equilibria in the Fe-Co binary system, in *Acta Materialia*, 50 (2002) 379-393.

92. S G Fries and B Sundman, Using Re-W sigma-phase first-principles results in the Bragg-Williams approximation to calculate finite-temperature thermodynamic properties, in *Phy. Rev. B*, 66 (2002) art. no. 012203
93. J-O Andersson, T Helander, L Höglund, P Shi and B Sundman, Thermo-Calc and DICTRA, computational tools for materials science, in *Calphad* 26 (2002) 273-312
94. Qing Chen and Bo Sundman, Computation of Partial Equilibrium with Complete Interstitial and Negligible Substitutional Solute Back Diffusion, in *Mat. Trans.*, 43, Jap Inst of Metals (2002) 551-559
95. C Toffolon, C Servant, J C Gachon and B Sundman, Reassessment of the Nb-Sn system, in *J Phase Eq*, 23 (2002) 134-139
96. P B Fernandes, G C Coelho, F Ferreira, C A Nunes and B Sundman, Thermodynamic modeling of the Nb-Si system, in *Intermetallics*, 10, (2002) 993-999
97. C Gueneau, M Baichi, D Labroche, C Chatillon and B Sundman, Thermodynamic assessment of the uranium-oxygen system, in *J Nucl Mater*, 304 (2002) 161-175
98. J Odqvist, B Sundman and J Ågren, A general method for calculating deviation from local equilibrium at phase interfaces, in *Acta Mat.*, 51 (2003) 1035-1043
99. S N Prins, L A Comish, W E Stumpf and B Sundman, Thermodynamic Assessment of the Al-Ru system, in *Calphad* 27 (2003) 79-90
100. T Abe and B Sundman, A description of the effect of short range ordering in the compound energy formalism, in *Calphad* 27 (2003) 403-408
101. R Jerlerud Perez and B Sundman, Thermodynamic assessment of the Mo-Zr binary phase diagram, in *Calphad* 27 (2003) 253-262
102. J Bratberg and B Sundman, A thermodynamic assessment of the Co-V system. *J Phase Equil*, 24 (2003) 495-503
103. J-M Joubert, B Sundman and N Dupin, An assessment of the niobium-nickel system, in *Calphad* 28, (2004) 299-306
104. H Mao, M Selleby and B Sundman, A re-evaluation of the liquid phases in the CaO-Al<sub>2</sub>O<sub>3</sub> and MgO-Al<sub>2</sub>O<sub>3</sub> systems, in *Calphad* 28 (2004) 307-312.
105. P A Korzhavyi, B Sundman, M Selleby and B Johansson, Atomic Electronic and Magnetic Structure of Iron-Based Sigma-Phases, in *Mater Res Soc Symp Proc*, 842, (2005) S4.10.1-6

106. X-G Lu, M Selleby and B Sundman, Theoretical modeling of molar volume and thermal expansion, in *Acta Materialia*, 53 (2005) 2259-2272
107. S G Fries and B Sundman, Development of multicomponent thermodynamic databases for use in process modelling and simulations, in *J Phys and Chem of Solids*, 66 (2005) 226-230
108. A Markström, B Sundman and K Frisk, A revised thermodynamic description of the Co-W-C system, in *J Phase Eq and Diff*, 26 (2005) 152-160
109. X G Lu, M Selleby and B Sundman, Implementation of a new model for pressure dependence of condensed phases in Thermo-Calc, in *Calphad* 29 (2005) 49-55
110. X G Lu, M Selleby and B Sundman, Assessments of molar volume and thermal expansion for selected bcc, fcc and hcp metallic elements, in *Calphad* 29 (2005) 68-89
111. H H Mao, M Selleby and B Sundman, Phase equilibria and thermodynamics in the Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> system - Modelling of mullite and liquid, in *J of the American Ceramic Soc.* 88 (2005) 2544-2551
112. H Ohtani, S Matsumoto, B Sundman, T Sakuma and M Hasebe, Equilibrium between fluorite and pyrochlore structures in the ZrO<sub>2</sub>-Nd<sub>2</sub>O<sub>3</sub> system, in *Materials Trans* 46 (2005) 1167-1174
113. H H Mao, A Fabrichnaya, M Selleby and B Sundman, Thermodynamic assessment of the MgO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> system, in *J of Materials Research* 20 (2005) 975-986
114. Q Chen, A Engström, L Höglund, H Strandlund and B Sundman, Thermo-Calc program interfaces and their applications - Direct insertion of thermodynamic and kinetic data into modelling of materials processing, structure and property, in *Materials Science Forum*, **475-479** (2005) pp 3145-3148
115. P F Shi, A Engström, L Höglund, B Sundman and J Ågren, Thermo-Calc and DICTRA enhance materials design and processing, in *Materials Science Forum*, **475-479** (2005) pp 3339-3346
116. J H Wang, X G Lu, B Sundman and X P Su, Thermodynamic assessment of the Au-Ni system, in *Calphad* 29 (2005) 263-268
117. V I Baykov, R J Perez, P A Korzhavyi, B Sundman and B Johansson, Structural stability of intermetallic phases in the Zr-Sn system, in *Scripta Mat.*, 55 (2006) 485-488

118. N Dupin, S G Fries, J M Joubert, B Sundman, M H F Sluiter, Y Kawazoe and A Pasturel, Using first-principles results to calculate finite-temperature thermodynamic properties of the Nb-Ni  $\mu$  phase in the Bragg-Williams approximation, in *Phil Mag* **86** (2006) 1631-1641
119. T Abe, B Sundman and H Onodera, Thermodynamic assessment of the Cu-Pt system, in *J Phase Eq and Diff*, **27** (2006) 5-13
120. H H Mao, M Hillert, M Selleby and B Sundman, Thermodynamic assessment of the CaO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> system, in *J of Am Cer Soc* **89** (2006) 298-308
121. J Wang, X-G Lu, B Sundman and X Su, Thermodynamic reassessment of the Au-Te system, in *J of Alloys and Compounds*. **407**, no. 1-2, (2006) 106-111
122. R. Schmid-Fetzer, D. Andersson, P-Y Chevalier, L. Eleno, O. Fabrichnaya, U. R. Kattner, B. Sundman, C. Wang, A. Watson, L. Zabdyr, M. Zinkevich, Assessment techniques, database design and software facilities for thermodynamics and diffusion, in *Calphad* **31** (2007) 38-52
123. X-G Lu, M Selleby and B Sundman, Calculations of thermophysical properties of cubic carbides and nitrides using the Debye-Gruneisen model, in *Acta Mater* **55** (2007) 1215-1226
124. Byeong-Joo Lee, Bo Sundman, Sung Il Kim and Kwang-Geun Chin, Thermodynamic calculations on the stability of Cu<sub>2</sub>S in low carbon alloys, in *ISIJ International*, **47** (2007) 163-171
125. Rockfeller Maciel Pecanha, Flávio Ferreira, Gilberto Carvalho Coelho, Carlos Angelo Nunes and Bo Sundman, Thermodynamic modeling of the Nb-B system in *Intermetallics*, **15** (2007) 999-1005
126. Ping-Fang Shi, Anders Engström, Lars Höglund, Qing Chen, Bo Sundman, John Ågren and Mats Hillert, Computational Thermodynamics in Materials Modelling and Simulations in *J of Iron and Steel Research International*, **14** (2007) 210-215
127. Damien Connetable, Jacques Lacaze, Philippe Maugis and Bo Sundman, A Calphad assessment of Al-C-Fe system with the K carbide modelled as an ordered form of the fcc phase, in *Calphad* **32** (2008) 361-370
128. Lina Kjellqvist, Malin Selleby and Bo Sundman, Thermodynamic modelling of the Cr-Fe-Ni-O system in *Calphad* **32** (2008) 577-592
129. Rosa Jerlerud Perez, Caroline Toffolon-Masclat, Jean-Marc Joubert and Bo Sundman, The Zr-Sn binary system: New experimental results and thermodynamic assessment, *Calphad* **32** (2008) 593-601

130. Christine Gueneau, Christian Chattion and Bo Sundman, Thermodynamic modeling of the plutonium-oxygen system, *J of Nucl Mater*, **378** (2008) 257-272
131. M Mathon, D Connetable, B Sundman and J Lacaze Calphad-type assessment of the Fe-Nb-Ni ternary system *Calphad* **33** (2009) 136-161
132. M Hillert, L Kjellqvist, H Mao, M Selleby and B Sundman, Parameters in the compound energy formalism for ionic systems, *Calphad* **33** (2009) 227-232
133. B Sundman, N Dupin, U Kattner, I Ohnuma and S G Fries, An assessment of the entire Al-Fe system with D0<sub>3</sub> ordering, *Acta Materialia* **57** (2009) 2896-2908
134. L Eleno, B Sundman and J Lacaze, Solidification path of Al-Fe-Mn-Si aluminium alloys, 12th Conf on Modelling Casting, Welding and Advanced Solidification Processes, Vancouver Canada (2009) 635-642
135. X-G Lu, B Sundman and J Ågren, Thermodynamic Assessments of the Ni-Pt and Al-Ni-Pt systems. *Calphad* **33** (2009) 450-456
136. V Rigaud, B Sundman, D Daloz and G Lesoult, Thermodynamic Assessment of the Fe-Al-Zr phase diagram, *Calphad* **33** (2009) 442-449
137. M Hillert, M Selleby and B Sundman, An attempt to correct the quasichemical model, *Acta Materialia*, **57** (2009) 5237-5244
138. B Sundman, S Ford, X-G Lu, T Narita and D Monreau, Experimental and Simulation Study of Uphill Diffusion of Al in a Pt Coated  $\gamma$ -Ni-Al Alloy, *J of Phase Equilibria and Diffusion*, **30** (2009) 602-607

## Books and other contributions.

1. B Sundman and S G Fries, Description of Thermodynamic Software, in “École d’été de calculs thermodynamic”, Eds M C Record and J C Tedenac, The Data Science Library, Elsevier (2001), ISBN 2-84299-360-8.
2. I Ansara, N Dupin and B Sundman, Description thermodynamique des phases métalliques ordonnées avec le modèle en sous-réseaux, in “École d’été de calculs thermodynamic”, Eds M C Record and J C Tedenac, The Data Science Library, Elsevier (2001), ISBN 2-84299-360-8.
3. Hans Leo Lukas, Suzana G Fries and Bo Sundman, *Computational Thermodynamics, The Calphad Method*, Cambridge University Press, UK (2007) ISBN 9780521868112
4. B Sundman and I Ansara, The Gulliver-Scheil method for the calculation of solidification paths, in “The SGTE Casebook”, 2nd edition, Ed K Hack, Woodhead Publishing Ltd, 2007 ISBN 1845692152
5. B Sundman and I Ansara, Calculation of Solidification Paths for Multicomponent Systems, in “The SGTE Casebook”, 2nd edition, Ed K Hack, Woodhead Publishing Ltd, 2007 ISBN 1845692152
6. B Sundman, Preventing Clogging in a Continuous Casting Process, in “The SGTE Casebook”, 2nd edition, Ed K Hack, Woodhead Publishing Ltd, 2007 ISBN 1845692152
7. N Warnken, B Böttger, D Ma, S G Fries, N Dupin and B Sundman, Microstructure of a five-component Ni-base superalloy: experiments and simulation, in “The SGTE Casebook”, 2nd edition, Ed K Hack, Woodhead Publishing Ltd, 2007 ISBN 1845692152

## Some published lectures

1. Bo Sundman and John Ågren, The Sublattice Model, Materials Research Society, Symp. Proc., 19 (1983) 115-127.
2. Bo Sundman, Bo Jansson, Jan-Olof Andersson, John Ågren, Per Gustafson, Anders Lindquist, Armando Fernandez Guillermet, and Mats Hillert, Thermo-Calc, a Databank for Thermochemical Calculations, in ”Nonbibliographic Data Banks in Science and Technology”, Eds. Stephan Schwarz, David Watson and Olov Alvfeldt CODATA/Unesco/DFI Seminar, Stockholm Oct 15-22, (1983).
3. Bo Sundman, Bo Jansson and Jan-Olof Andersson, Thermo-Calc, a Databank for Calculation of Phase Equilibria and Phase Diagrams, in ”User Applications of Alloy Phase Diagrams”. Ed. L. Kaufman, Proc. Conf. ASM, Lake Buena Vista, Florida, USA, (1986).

4. Bo Sundman, Thermo-Calc, a General Tool for Phase Diagram Calculations, in "Computer Aided Innovation of New Materials". Eds M. Doyama, T. Suzuki, J. Kihara and R. Yamamoto. Elsevier Science Publishers B. V. (North Holland) (1991).
5. Waturu Yamada, Tooru Matsumiya, Bo Sundman, Development of Simulator of Solidification Path and Formation of Non-metallic Inclusion during Solidification of Stainless Steel, in "Computer Aided Innovation of New Materials". Eds M. Doyama, T. Suzuki, J. Kihara and R. Yamamoto. Elsevier Science Publishers B. V. (North Holland) (1991).
6. Bo Jansson, Björn Jönsson, Bo Sundman and John Ågren, The Thermo-Calc Project, *Therochim Acta*, 214 (1993) 93-96.
7. Bo Sundman and Fritz Aldinger, Computer Simulation of Synthesis of Nitride Ceramics, in *proc of TMS Conf on Applications of Thermodynamics in the Synthesis and Processing of Materials*. Eds P Nash and B Sundman, (1995) 29-36.
8. I Ansara, N Dupin, H L Lukas and B Sundman, Thermodynamic Assessment of the Al-Ni System, in *Proc of TMS Conf on Applications of Thermodynamics in the Synthesis and Processing of Materials*. Eds P Nash and B Sundman, (1995) 273-283.
9. Bo Sundman and Fritz Aldinger, (Eds) *Proceedings of "The Ringberg Workshop 1995 on Unary Data for Elements and other End-members of Solutions"*, arranged in Ringberg, Germany and published in *Calphad* *Calphad*, 19 (1995) p 433-591.
10. Bo Sundman, Implementation of pair-CVM in the Compound Energy Method, in *proceedings of an International Workshop on "Computer Modelling and Simulation for Materials Design"*, Eds S Nishijima and H Onodera, NRIM, Tsukuba, Japan, (1996) 126-131.
11. B Sundman, H-J Seifert and F Aldinger, *Proceedings from "The Ringberg Workshop 1996 on Solution Modelling"*, in *Calphad*, 21 (1997) pp 139-285.
12. B Sundman, F Aldinger and H J Seifert, *The Ringberg workshop 1997 on the Application of Computational Thermodynamics*, in *Calphad*, 24 (2000) 15-18.
13. B Sundman, S G fries, A Kusoffsky and W A Oates, *Progress in the Thermodynamic Modelling of Order/Disorder Transformations with the Compound Energy Formalism*, in *Proc Conf Solid-Solid Phase Transformations*, Kyoto, Eds M Koiwa, K Otsuka and T Miyazaki, (1998) 689-692.
14. J A Cotton, R D Knutsen, B Sundman, *Modification of the stainless steel database for high manganese, chromium and nitrogen contents*, in *Mater Sci Forum* 318-3 (1999) 89-94.

15. H J Seifert, B Sundman and F Aldinger, The Ringberg Workshop 1999 on Thermodynamic Modelling and Applications, in *Z Metallkde*, 92 (2001) 513.
16. B Sundman, Summary of Calphad XXXI in Stockholm 2002, in *Calphad* 28 (2004) 221-240.
17. M Zinkewich, F Aldinger and B Sundman, The Ringberg workshop 2005 on thermodynamic modeling and first-principles calculations, *Calphad* **31** (2007) 2-3