

KENNETH HENDERSON JACK

BIBLIOGRAPHY

(A) Metals and Interstitial Alloys

1. Iron-nitrogen, iron-carbon and iron-carbon-nitrogen interstitial alloys: their occurrence in tempered martensite
K.H. Jack
1946, *Nature*, 158, 60.
2. Binary and ternary interstitial alloys, I. The iron-nitrogen system: the structures of Fe_4N and Fe_2N
K.H. Jack
1948, *Proc. Roy. Soc.*, A195, 34.
3. Binary and ternary interstitial alloys, II. The iron-carbon-nitrogen system
K.H. Jack
1948, *Proc. Roy. Soc.*, A195, 41.
4. Binary and ternary interstitial alloys, III. The iron-carbon system: the characterization of a new iron carbide
K.H. Jack
1948, *Proc. Roy. Soc.*, A195, 56.
5. Results of further X-ray structural investigations of the iron-carbon and iron-nitrogen systems and of related interstitial alloys
K.H. Jack
1950, *Acta Crystallographica*, 3, 392.
6. New interstitial phases relating to the surface hardening of steel
K.H. Jack
1950, *The Australasian Engineer*, November, p. 53.
7. The iron-nitrogen system: the preparation and the crystal structure of nitrogen-austenite (γ) and nitrogen martensite (α')
K.H. Jack
1951, *Proc. Roy. Soc.*, A208, 200.
8. The occurrence and the crystal structure of α'' -iron nitride; a new type of interstitial alloy formed during the tempering of nitrogen-martensite
K.H. Jack
1951, *Proc. Roy. Soc.*, A208, 216.
9. Structural transformations in the tempering of high-carbon martensitic steels
K.H. Jack
1951, *J. Iron & Steel Institute*, 169, 26.
10. The preparation and the crystal structures of cobalt nitride, Co_2N , of cobalt carbonitride, $\text{Co}_2(\text{C},\text{N})$ and of cobalt carbide, Co_2C
J. Clarke & K.H. Jack
1951, *Chemistry & Industry*, p. 1004.
11. The iron-nitrogen system: the crystal structures of ε -phase iron nitrides

- K.H. Jack
1952, Acta Crystallographica, 5, 404.
12. Modifications of Hägg iron carbide
E.M. Cohn, E.H. Bean, M. Menster, L.J.E. Hofer, A. Pontello, W.C. Peebles & K.H. Jack
1955, J. Applied Chemistry, 5, 418.
13. Kinetics of nitrogen evolution from an iron-nitrogen interstitial alloy
Sir Charles F. Goodeve & K.H. Jack
1948, General Discussion of the Faraday Society on the Physical Chemistry of Process Metallurgy, Discussion No. 4, p. 82.
14. A mechanical model to illustrate the collision mechanism of solute atoms or molecules in reactions in liquid solution and in reactions at the surface of an interstitial solid solution
K.H. Jack
1951, Research, 4, 329.
15. An improved laboratory gas scrubber
K.H. Jack
1946, Chemistry & Industry, p. 290.
16. An effusiometer for measuring gas densities in continuous flow systems or in closed systems
K.H. Jack
1951, The Analyst, 76, 613.
17. The nature of χ -carbide and its possible occurrence in steels
K.H. Jack & S.
1966, Nature, 212, 248.
18. Some interstitial order-disorder transformations
K.H. Jack
1969 "Proc. Int. Symposium on the Mechanisms of Phase Transformations in Crystalline Solids", Manchester, 1968. London: The Institute of Metals, pp. 221-223.
19. Contribution to "Steel Strengthening Mechanisms"
K.H. Jack
1969 "Proc. Climax Molybdenum Company Symposium", Zurich. Amax, pp. 174-179.
20. Guinier-Preston zones in body-centred cubic metals. A new steel strengthening mechanism
D.L. Speirs, W. Roberts, P. Grieveson & K.H. Jack
1970 "Proc. Second Int. Conf. on the Strength of Metals and Alloys", Asilomar. Amer. Soc. Metals, vol. II, pp. 601-605.
21. Structure of Z-phase, NbCrN
D.H. Jack & K.H. Jack
1972 J. Iron & Steel Institute, 790.
22. The effect of substitutional alloying elements on the behaviour of interstitial solutes in iron. A review of current work at Newcastle.
K.H. Jack

- 1972, Scand. J. of Metallurgy, 1, 195.
23. Precipitation of nitrides in ferritic iron alloys containing chromium
B. Mortimer, P. Grieveson & K.H. Jack
1972, Scand. J. of Metallurgy, 1, 203.
24. Substitutional-interstitial solute-atom interactions in nitrided austenitic steel
J.H. Driver, J. Handley & K.H. Jack
1972, Scand. J. of Metallurgy, 1, 211.
25. Substitutional-interstitial G.P. zones in nitrided Fe-Mo alloys
J.H. Driver, D.C. Unthank & K.H. Jack
1972, Philosophical Magazine, 26, 1227.
26. The nitriding behaviour of austenitic steels containing titanium
D.C. Unthank, J.H. Driver & K.H. Jack
1972, Nature Physical Science, 238, 136.
27. Precipitation of silicon nitrides and manganese-silicon nitrides in steel
W. Roberts, P. Grieveson & K.H. Jack
1972, J. Iron & Steel Institute, 931.
28. Carbides and nitrides in steel
D.H. Jack & K.H. Jack
1973, Materials Science & Engineering, 11, 1.
29. The nitride hardening of ferritic iron-manganese and iron-manganese-silicon alloys
B. Jonsson-Holmqvist, P. Grieveson & K.H. Jack
1973, Scand. J. of Metallurgy, 2, 35.
30. Nitride precipitation in ferritic iron-vanadium alloys
M. Pope, P. Grieveson & K.H. Jack
1973, Scand. J. of Metallurgy, 2, 29
31. Precipitation in iron-tungsten-nitrogen alloys
A. Stephenson, P. Grieveson & K.H. Jack
1973, Scand. J. of Metallurgy, 2, 39.
32. Effect of substitutional alloying elements on the activity coefficients and behaviour of interstitial solutes in iron
N.J. Pipkin, W. Roberts, D.L. Speirs, P. Grieveson & K.H. Jack
1973, "Chemical Metallurgy of Iron & Steel" London: Iron & Steel Inst. pp. 351-2.
33. Mixed interstitial and substitutional atom clustering in metals: a new steel strengthening mechanism
D.L. Speirs, W. Roberts, P. Grieveson & K.H. Jack
1973, "Chemical Metallurgy of Iron & Steel" London: Iron & Steel Inst. pp. 371-3.
34. Kinetics of nitriding iron alloys
D.H. Jack, P. Lidster, P. Grieveson & K.H. Jack

- 1973, "Chemical Metallurgy of Iron & Steel" London: Iron & Steel Inst. pp. 374-6.
35. Effects of oxygen on the distribution of silicon nitride precipitates in iron
W. Roberts, P. Grieveson & K.H. Jack
1973, "Chemical Metallurgy of Iron & Steel" London: Iron & Steel Inst. pp. 384-6.
36. Mixed solute clustering - a new metal strengthening mechanism
K.H. Jack
1973, J. Sheffield University Met. Soc., 12, 22.
37. The nitriding of iron and alloy steels
K.H. Jack
1973, "High Temperature Gas-metal Reactions in Mixed Environments", ed. by Jonsson & Foroulis. New York: The Metallurgical Society of AIME, pp. 182-229.
38. Nitride-hardening of an austenitic stainless steel containing titanium
D.C. Unthank, J.H. Driver & K.H. Jack
1974, Metal Science, 8, 209.
39. The development of high-strength iron alloys through gaseous reactions
K.H. Jack
1974, Metal Science, 8, 271.
40. Nitriding
K.H. Jack
1975, "Heat Treatment '73". London: The Metals Society, pp. 39-50.
41. Internal friction associated with substitutional-interstitial solute-atom clusters in iron-vanadium-nitrogen alloys and other ternary nitrogen-ferrites
M. Pope, D.M. Jones & K.H. Jack
1975, "Proc. of Fifth Int. Conf. on Internal Friction & Ultrasonic Attenuation in Crystalline Solids, Aachen 1973, ed. by Lenz & Lücke. Berlin-Heidelberg: Springer-Verlag, pp. 266-275.
42. Nitriding of high-chromium iron alloys
Z. Mazur & K.H. Jack
1977, Proc. IX Konferencja Metaloznawcza, Krakow, Poland 1977, pp. 434-439.
43. The principle and practice of gaseous nitriding
K.H. Jack
1978, Proc. of Conf. "Carbides, Borides & Nitrides in Steels", Univ. of Poznan, at Kolobrzeg, 4-6 October 1978, pp. 137-147.
44. Solute-atom clustering in nitrided iron alloys
A. Hendry & K.H. Jack
1978, 5th Electron Microscopy Conference, Warsaw, Poland. 1978, pp. 137-147.
45. Influence of nitrogen on 475°C embrittlement of high-chromium ferritic steel
A. Hendry, Z. Mazur & K.H. Jack
1979, Metal Science, 13, 482.
46. Strengthening by mixed cluster formation in nitrided low-alloy steels

- D.M. Jones, A. Stephenson, A. Hendry & K.H. Jack
1979, Proc. of 5th Int. Conf. on the Strength of Metals and Alloys, Aachen, vol. 1, pp 737-42.
47. Modulated substitutional-interstitial solute-atom clustering in nitrided austenitic Fe-34Ni-V alloys
J.H. Driver, R. Sinclair & K.H. Jack
1979, Proc. R. Soc. Lond., A367, 99.
48. The influence of nitrogen on the phase transformations in iron-chromium alloys
Z. Mazur, K.H. Jack & A. Hendry
1980, Metalurgia i Odlewnictwo, 6, 193.
49. Strengthening of low-titanium iron alloys by nitriding
D.S. Rickerby, A. Hendry & K.H. Jack
1983, "Heat Treatment '81", London: The Metals Society, pp. 130-136.
50. Quench-aging and strain-aging of nitrogen-ferrite
P. Ferguson & K.H. Jack
1983, "Heat Treatment '81", London: The Metals Society, pp. 158-163.
51. A lattice imaging study of nitrogen precipitation in α -iron and Fe-2.17 at.%Mn
P. Ferguson & K.H. Jack
1984, Phil. Mag. A, 50, 221.
52. The tempering of Fe-C-N martensite
P. Ferguson & K.H. Jack
1984, Scripta Met., 18, 1189.
53. Nitrided irons and nitrogen steels
A. Hendry & K.H. Jack
1984, Proc. of "Centenary of Metallurgy Teaching in Glasgow", Glasgow: University of Strathclyde,
54. Stress orientation of nitrogen during the quench-aging of nitrogen ferrite
P. Ferguson & K.H. Jack
1985, Phil. Mag. A, 52, 509.
55. The occurrence of high-speed steel carbide-type η phases in the Fe-Nb system
F.X. Lü & K.H. Jack
1985, J. of the Less-Common Metals, 14, 123.
56. New interstitial alloy hardmetals
A.J. Carr, P. Korgul & K.H. Jack
1986, Inst. Phys. Conf. Ser. No, 75: Chapter 6, pp. 525-535.
57. Structure and thermochemistry of nitrided iron-titanium alloys
D.S. Rickerby, S. Henderson, A. Hendry & K.H. Jack
1986, Acta Met., 34, 1687.
58. Low-temperature aging of nitrided Fe-Ti alloys
D.S. Rickerby, A. Hendry & K.H. Jack
1986, Acta Met., 34, 1925.

59. Influence of cold work on mechanical properties of Fe-Ti-N alloys
 D.S. Rickerby, A. Hendry & K.H. Jack
 1986, Mat. Sci. & Technology, 2, 1115.
60. New interstitial alloy hardmetals
 K.H. Jack
 1987, Metal Powder Report, 42, 478.
61. Nitrogen precipitation - retrospect and prospect
 K.H. Jack
 1989, "High Nitrogen Steels, HNS 88. Proc. Int. Conf. at Lille, May 1988". ed. by Foc & Hendry. London: The Metals Society, pp. 117-135.
62. Nitrogen steels
 K.H. Jack
 1993, Proc. IMF8 at Dublin, Sept. 1992. ed. by Hampshire, Buggy & Carr. In "Engineered Materials" Key Engineering Materials, 86-87, Trans. Tech. Publications, Switzerland, pp. 1-10.
63. The magnetization of α'' - Fe_{16}N_2
 J.M.D. Coey, K. O'Donnell, Qi Qinian, E. Touchais & K.H. Jack
 1994, J. Phys. Condens. Matter, 6, L23.
64. The synthesis, structure, and characterization of α'' - Fe_{16}N_2
 K.H. Jack
 1994, J. Appl. Phys., 76, 6620.
65. The synthesis and characterization of bulk α'' - Fe_{16}N_2
 K.H. Jack
 1995, J. Alloys & Compounds, 222, 160.
66. α'' - Fe_{16}N_2 : A giant magnetic moment material?
 K.H. Jack
 1995, Metallurgy and Foundry Engineering (Krakow, Poland), 21, 265.
171. α'' Fe_{16}N_2 : A giant Magnetic Moment Material?
 K.H. Jack
 2000, Proc. Int. Symp. on Nitrides II at Limerick, Ireland 9-11 June, 1998. In "Nitrides and Oxynitrides", eds. S. Hampshire & M. Pomeroy, Materials Science Forum, 325-326, Trans. Tech. Publications, Switzerland, pp. 91-97.

(B) Vitreous Silica, Nitrogen-ceramics and Nitrogen-glasses

67. Crystal structures of silicon nitride
 D. Hardie & K.H. Jack
 1957, Nature, 180, 332.
68. L'eau dans la silice vitreuse, I. Influence de la teneur en eau sur les proprietes de la silice vitreuse

- G. Hetherington & K.H. Jack
1962, Bull. de la Societe Francaise de Ceramique, No. 55.
69. L'eau dans la silice vitreuse, II. Quelques aspects des equilibres hydrogene-eau-silice
G. Hetherington & K.H. Jack
1962, Bull. de la Societe Francaise de Ceramique, No. 55.
70. Water in vitreous silica, I. Influence of "water" content on the properties of vitreous silica
G. Hetherington & K.H. Jack
1962, Physics & Chemistry of Glasses, 3, 129.
71. Water in vitreous silica, II. Some aspects of the hydrogen-water-silica equilibrium
T. Bell, G. Hetherington & K.H. Jack
1962, Physics & Chemistry of Glasses, 3, 141.
72. "Quarzglas und quarzgut"
G. Hetherington & K.H. Jack
Ullmans 1973 Encyklopädie der Technischen Chemie, 3rd edn., Volume 14. München-Berlin:
Urban and Schwarzenberg, pp. 511-524.
73. The viscosity of vitreous silica
G. Hetherington, K.H. Jack & J.C. Kennedy
1964, Physics & Chemistry of Glasses, 5, 130.
- .74. The oxidation of vitreous silica
G. Hetherington & K.H. Jack
1964, Physics & Chemistry of Glasses, 5, 147.
75. The high temperature electrolysis of vitreous silica, I. Oxidation, ultra-violet induced fluorescence,
and irradiation colour
G. Hetherington, K.H. Jack & M.W. Ramsay
1965, Physics & Chemistry of Glasses, 6, 6.
76. The high temperature electrolysis of vitreous silica, II. Active electrodes and anisotropic
electrolytes
T. Dunn, G. Hetherington & K.H. Jack
1965, Physics & Chemistry of Glasses, 6, 16.
77. The thermodynamics and kinetics of formation of phases in the Ge-N-O and Si-N-O systems
S. Wild, P. Grieveson & K.H. Jack
1972, Special Ceramics, 5, 271.
78. The crystal chemistry of new metal-silicon-nitrogen ceramic phases
S. Wild, P. Grieveson & K.H. Jack
1972, Special Ceramics, 5, 289.
79. The role of magnesia in hot-pressed silicon nitride
S. Wild, P. Grieveson, K.H. Jack & M.J. Latimer
1972, Special Ceramics, 5, 377.

80. The crystal structures of alpha and beta silicon and germanium nitrides
S. Wild, P. Grieveson & K.H. Jack
1972, Special Ceramics, 5, 385.
81. Ceramics based on the Si-Al-O-N and related systems
K.H. Jack & W.I. Wilson
1972, Nature Physical Science, 238, 28.
82. Thermodynamic and phase relationships in the silicon-nitrogen oxygen system
S. Wild, P. Grieveson & K.H. Jack
1972, "Metallurgical Chemistry Symposium 1971". HMSO, SBN 11 480026X, pp. 339-344.
83. The determination of surface silica and its effect on the hot-pressing behaviour of alpha silicon nitride powder
I. Colquoun, D.P. Thompson, W.I. Wilson, P. Grieveson & K.H. Jack
1973, Proc. Brit. Ceram. Soc., 22, 181.
84. Thermodynamics of the silicon-nitrogen-oxygen system
I. Colquoun, S. Wild, P. Grieveson & K.H. Jack
1973, Proc. Brit. Ceram. Soc., 22, 207.
85. Nitrogen ceramics (17th Mellor Memorial Lecture)
K.H. Jack
1973, Trans. & J. Brit. Ceram. Soc., 72, 376.
86. The production of high-temperature, high-strength nitrogen ceramics
K.H. Jack
1974, "Ceramics for High-Performance Applications", Proc. of 2nd Army Materials Technology Conf., Hyannis, Nov. 1973. Chestnut Hill, Mass. Brook Hill, pp. 265-286.

87. The preparation of silicon nitride from silica
A. Hendry & K.H. Jack
1975, Special Ceramics, 6, 199.
88. The lithia-silicon nitride-alumina system
S.A.B. Jama, D.P. Thompson & K.H. Jack
1975, Special Ceramics, 6, 299.
89. Phase relationships in the $MgO-Si_3N_4-Al_2O_3$ system
A. Hendry, D.S. Perera, D.P. Thompson & K.H. Jack
1975, Special Ceramics, 6, 321.
90. The structure of yttrium silicon oxynitride and its role in the hot-pressing of silicon nitride with yttria additions
A.W.J.M. Rae, D.P. Thompson, N.J. Pipkin & K.H. Jack
1975, Special Ceramics, 6, 347.
91. Sialons and related nitrogen ceramics

- K.H. Jack
1976, J. Materials Science, 11, 1135.
92. Sialons and related nitrogen ceramics: their crystal chemistry, phase relationships, properties and industrial potential
K.H. Jack
1977, Proc. Conf. on High Temperature Chemistry of Inorganic and Ceramic Materials, ed. F.P. Glasser & P.E. Potter. The Chemical Society, London, 1977, pp. 204-221.
93. Direct lattice resolution of Si-Al-O-N polytypes
A. Hendry & K.H. Jack
1977, Inst. Phys. Conf. Ser. No.36, 1977, Chap. 4, 157.
94. The crystal chemistry of the sialons and related nitrogen ceramics
K.H. Jack
1977, Proc. NATO Advanced Study Inst. "Nitrogen Ceramics", Canterbury 1977, pp. 109-128.
95. Sialon glasses
K.H. Jack
1977, Proc. NATO Advanced Study Inst. "Nitrogen Ceramics", Canterbury 1977, pp. 257-262.
96. Electrical properties of some sialons
K.H. Jack
1977, Proc. NATO Advanced Study Inst. "Nitrogen Ceramics", Canterbury 1977, pp. 597-601.
97. The role of additives in the densification of nitrogen ceramics
A.W.J.M. Rae, D.P. Thompson & K.H. Jack
1977, Proc. 5th Army Materials Technology Conf. "Ceramics for High Performance Applications II", Newport, R.I., 1976, pp. 1039-1067.
98. The electron microscopy of sialon ceramics
A. Hendry & K.H. Jack
1978, 5th Electron Microscopy Conference, Warsaw, Poland. 1978, pp. 397-405.
99. New materials in the Si-C-Al-O-N and related systems
I.B. Cutler, P.D. Miller, W. Rafaniello, H.K. Park, D.P. Thompson & K.H. Jack
1978, Nature, 275, 434.
100. α' - Sialon ceramics
S. Hampshire, H.K. Park, D.P. Thompson & K.H. Jack
1978, Nature, 275, 880.
101. The fabrication of dense nitrogen ceramics
K.H. Jack
1978, Proc. 14th Univ. Conf. on Ceramic Science, North Carolina State University 1977 "Processing of Crystalline Ceramics". ed. H. Palmour, R.F. Davis & T.M. Hare, Plenum Press, New York.
102. The relationship of phase diagrams to research and development of sialons
K.H. Jack
1978, "Phase diagrams" vol. V. ed. A.M. Alper, New York: Academic Press, p. 241.

103. The sialons
K.H. Jack
1978, Materials Research Bulletin, 13, No. 12, 1327.
104. Phase assemblages in nitrogen ceramics and their relationships with properties
K.H. Jack
1979, Proc. Brit. Ceram. Soc., 28, 295.
105. The processing and properties of sialons and related nitrogen ceramics
K.H. Jack
1980, Proc. 4th Int. Meeting on Modern Ceramics Technologies, Saint-Vincent, Italy, May 1979, in Materials Science Monographs, 6: "Energy and Ceramics", ed. P. Vincenzini, Amsterdam: Elsevier, pp. 534-549.
106. α' - Sialon ceramics
H.K. Park, D.P. Thompson & K.H. Jack
1980, Proc. of 10th Int. Conf. "Science of Ceramics", ed. H. Hausner, Deutsche Keram. Gesell., p. 251
107. The kinetics of densification and phase transformation of nitrogen ceramics
S. Hampshire & K.H. Jack
1981, Special Ceramics 7, ed. D. Taylor & P. Popper. Proc. Brit. Ceram. Soc. No. 31, p. 37.
108. The preparation of silicon nitride from silica by sol-gel processing
A. Szweda, A. Hendry & K.H. Jack
1981, Special Ceramics 7, ed. D. Taylor & P. Popper. Proc. Brit. Ceram. Soc. No. 31, p. 107.
109. Nitrogen glasses
R.A.L. Drew, S. Hampshire & K.H. Jack
1981, Special Ceramics 7, ed. D. Taylor & P. Popper. Proc. Brit. Ceram. Soc. No. 31, p. 119.
110. Sialon tool materials
K.H. Jack
1982, Proc. of the Int. Conf. "Towards Improved Performance of Tool Materials", London, The Metals Society, pp. 122-126.
111. The significance of structure and phase equilibria in the development of silicon nitride and SiAlON ceramics
K.H. Jack
1981, Proc. of "Science of Ceramics", 11, 125.
112. Sialons and related nitrogen ceramics for industrial application
K.H. Jack
1982, "The Chemical Industry", Chap. 22, ed. D.H. Sharp & T.F. West, London: Ellis Horwood for the Society of Chemical Industry, pp. 271-291.
113. Sialon tool materials
K.H. Jack
1982, Metals Technology, 9, 297.

114. The characterization of α' - sialons and the α - β relationships in sialons and silicon nitrides
K.H. Jack
1983, Proc. NATO Advanced Study Institute, "Progress in Nitrogen Ceramics", The Hague:
Martinus Nijhoff, pp. 45-60.
115. Densification and transformation mechanisms in nitrogen ceramics
S. Hampshire & K.H. Jack
1983, Proc. NATO Advanced Study Institute, "Progress in Nitrogen Ceramics", The Hague:
Martinus Nijhoff, pp. 225-230.
116. The preparation and properties of oxynitride glasses
R.A.L. Drew, S. Hampshire & K.H. Jack
1983, Proc. NATO Advanced Study Institute, "Progress in Nitrogen Ceramics", The Hague:
Martinus Nijhoff, pp. 323-330.
117. Concluding remarks
K.H. Jack
1983, Proc. NATO Advanced Study Institute, "Progress in Nitrogen Ceramics", The Hague:
Martinus Nijhoff, pp. 771-774.
118. Viscosities, glass transition temperatures, and microhardnes of Y-Si-Al-O-N glasses
S. Hampshire, R.A.L. Drew & K.H. Jack
1984, J. Amer. Ceram. Soc., 67, No. 3, C-46
119. Engineering applications of sialons
K.H. Jack
1984, Proc. Conference on Materials Engineering, Leeds, pp. 65-72.
120. Structural studies of sialon ceramics by high-resolution solid-state NMR
J. Klinowski, J.M. Thomas, D.P. Thompson, P. Korgul, K.H. Jack, C.A. Fyfe & G.C. Gobbie
1984, Polyhedron, 3, No. 11, 1267.
121. Silicon oxynitride and O' - sialon ceramics
M.B. Trigg & K.H. Jack
1984, Proc. "1st Int. Symposium on Ceramic Components for Engines", 1983, Japan. Tokyo: NTK
Scientific Publishers, pp. 199-207
122. The effect of carbon content of silicon nitride on the subsequent oxidation of phases in the Y-Si-O-N system
S. Hampshire & K.H. Jack
1984, Proc. 1st Int. Symposium on "Ceramic Components for Engines", 1983, Japan. Tokyo: NTK
Scientific Publishers, pp. 350-357.
123. Nitrogen glasses and glass ceramics
R.A.L. Drew, S. Hampshire & K.H. Jack
1984, Proc. 1st Int. Symposium on "Ceramic Components for Engines", 1983, Japan. Tokyo: NTK
Scientific Publishers, pp. 394-403.

124. Ceramic alloys of silicon carbide with aluminium nitride and nitrogen
M. Patience, P.J. England, D.P. Thompson & K.H. Jack
1984, Proc. 1st Int. Symposium on "Ceramic Components for Engines", 1983, Japan. Tokyo: NTK Scientific Publishers, pp. 473-479.
125. Oxynitride glasses
S. Hampshire, R.A.L. Drew & K.H. Jack
1985, Physics & Chemistry of Glasses, 26, 182.
126. SiAlON hardmetal materials
K.H. Jack
1986, Inst. Phys. Conf. Ser. No. 75, Chapter 5, pp. 363-376.
127. Sialons
K.H. Jack
1986, "Encyclopaedia of Materials Science and Engineering", ed. M.B. Bever. Oxford: Pergamon Press, Vol. 6, pp. 4385-4390.
128. Foreword
K.H. Jack
1986, "Non-oxide Technical and Engineering Ceramics", ed. S. Hampshire. Elsevier Applied Science, pp. v-vii.
129. Sialons: a study in materials development
K.H. Jack
1986, "Non-oxide Technical and Engineering Ceramics", ed. S. Hampshire. Elsevier Applied Science, pp. 1-30.
130. Nitride ceramics - the systems
K.H. Jack
1985, Proc. of the 1st European symposium on "Engineering Ceramics, Applications, Availability and Advances in High Performance Technology", Oyez Scientific & Technical Services, pp. 5-23.
131. Solubility of aluminium in silicon oxynitride
M.B. Trigg & K.H. Jack
1987, J. of Materials Science Letters, 6, 407.
132. Nitrogen ceramics
K.H. Jack
1987, Endeavour, New Series, 11, No. 2, 80.
133. Silicon nitride, sialons, and related ceramics.
K.H. Jack
1987, "Ceramics and Civilisation III; High-Technology Ceramics, Past, Present and Future. The Nature of Innovation and Change in Ceramic Technology", ed. W.D. Kingery, pp. 259-288.
134. The fabrication of O' - β' sialon ceramics
W.Y. Sun, D.P. Thompson & K.H. Jack

1986, Tailoring Multiphase and Composite Ceramics; vol. 20 in the Materials Science Research series, Proc. 21st Univ. Conf. on Ceramic Science at Penn State U.S.A., ed. R.E. Tressler, G.L. Messing, C.G. Pantano & R.E. Newnham. New York: Plenum Press, pp. 93-101.

135. Ceramici strutturali
K.H. Jack
1987-1988, Sienza & Technica (Milan), pp. 297-307.
136. The fabrication of O¹ - sialon ceramics by pressureless sintering
M.B. Trigg & K.H. Jack
1988, J. of Materials Science , 23, 481.
137. Sialons and related ceramic alloys
K.H. Jack
1988, "Alloying", ed. J.L. Walter, M.R. Jackson & C.T. Sims. Metals Park, Ohio: ASM International, pp. 447-488.
138. Sialons; ceramic alloys for engineering applications
K.H. Jack
1991, J. Mater. Educ., 13, 1
139. Sialons; ceramic alloys for engineering applications
K.H. Jack
1991, "Ceramics: toward the 21st century", Proc. of Int. Symposium commemorating the Centennial of the Ceramic Society of Japan at Yokohama, Japan, 16-18 October, 1991. Ed. N. Soga & A. Kato. Tokyo: The Ceramic Society of Japan, pp. 465-481.
140. New sialon ceramic composites
K.H. Jack
1991, Proc. 1st Int. Symposium on "Science of Engineering Ceramics" at Mikawa-Haitsu, Japan, 21-23 October, 1991. Ed. S. Kimura & K. Niihara. Tokyo: The Ceramic Society of Japan, pp. 263-269.
141. Sialon ceramics: retrospect and prospect
K.H. Jack
1993, MRS Symposium Proceedings, 287, "Silicon nitride ceramics" at Boston, U.S.A., 30 November - 3 December, 1992. Ed. I-W. Chen, P.F. Becher, M. Mitomo, G. Petzow & T.S. Yen. Pittsburgh: Materials Research Society, pp. 15-27.
142. Prospects for nitrogen ceramics
K.H. Jack
1994, Proc. Int. Conf. on "Silicon nitride-based ceramics" at Stuttgart, Germany, 4-6 October, 1993. Ed. M.J. Hoffmann, P.F. Becher & G. Petzow. In "Silicon Nitride 93", Key Engineering Materials, 89-91. Trans. Tech. Publications, Switzerland, pp. 345-350.
143. Prospects for nitrogen ceramics in engine applications
K.H. Jack

1995, Proc. 5th Int. Symposium on "Ceramic Materials and Components for Engines" at Shanghai, China, on 29 May - 1 June, 1994. Ed. D.S.Yan, X.R.Fu & S.X.Shi, Singapore: World Scientific Publishing Co. Pte. Ltd., pp. 32-38.

168. A Reappraisal of Nitrogen Ceramics for Engine Applications
K.H. Jack
1998, Proc. 6th Int. Symp. on "Ceramic Materials and Components for Engines" at Arita, Japan, 19-23 October, 1997. Ed. K. Niihara, S. Kanzaki, K. Komeya, S. Hirano & K. Moringa. Tokyo, Technoplaza Co. Ltd., pp. 203-7.
169. $\alpha \leftrightarrow \beta$ Phase Transformations in Silicon Nitride and Sialons
H. Mandal, D. P. Thompson & K.H. Jack
1999, Proc. Int. Symp. on "Novel Synthesis and Processing of Ceramics" at Kurume, Japan, 26-29 October, 1997. Ed. H. Suzuki, K. Komeya & K. Uematsu. In Key Engineering Materials, 159-160. Trans. Tech. Publications, Switzerland, pp. 1-10.
170. Nitrogen Ceramics for Engine Applications
K.H. Jack
2000, Proc. Int. Symp. on Nitrides II at Limerick, Ireland 9-11 June, 1998. In "Nitrides and Oxynitrides", eds. S. Hampshire & M. Pomeroy, Materials Science Forum, 325-326, Trans. Tech. Publications, Switzerland, pp. 255-261.
172. The Driving Force for $\alpha \leftrightarrow \beta$ Phase Transformation in Sialons
H. Mandal, D.P. Thompson, K.H. Jack & M.J. Hoffman
1998, Proc. 9th CIMTEC World Congress, Florence, Italy.

(C) Molecular and Crystal Structures

144. The configuration of tropine and pseudo-tropine
G.R. Clemo & K.H. Jack
1953, Chemistry & Industry, p.135.
145. The crystal structures of molybdenum trifluoride, MoF_3 , and tantalum trifluoride, TaF_3
V. Gutmann & K.H. Jack
1951, Acta Crystallographica, 4, 244.
146. The crystal structures of vanadium trifluoride, VF_3
V. Gutmann & K.H. Jack
1951, Acta Crystallographica, 4, 246.
147. Structure of complex fluorides, I. Potassium hexa-fluoro-osmate (V), KO_6F_6
M.A. Hepworth & K.H. Jack
1956, J. Inorganic & Nuclear Chemistry, 2, 79.
148. The crystal structures of the trifluorides of iron, cobalt, ruthenium, rhodium, palladium and iridium
M.A. Hepworth, R.D. Peacock, G.J. Westland & K.H. Jack
1957, Acta Crystallographica, 10, 63.

149. The crystal structures of manganese trifluoride, MnF_3
 M.A. Hepworth & K.H. Jack
 1957, Acta Crystallographica, 10, 345.
150. Interatomic bonding in manganese trifluoride
 M.A. Hepworth, R.S. Nyholm & K.H. Jack
 1957, Nature, 179, 211.
151. The crystal structures and interatomic bonding of chromous and chromic trifluorides
 R. Maitland & K.H. Jack
 1957, Proc. Chem. Soc., p. 232.
152. Preparation and properties of crystalline gold trifluoride
 L.B. Asprey, F.H. Kruse, K.H. Jack & R. Maitland
 1964, Inorganic Chemistry, 3, 602.
153. Contribution to the Bi-Mn system
 L. Himmel & K.H. Jack
 1956, Trans. A.I.M.E., Journal of Metals, 8, 1406.
154. The structural characterization of caesium antimonide. Temperature factors in cubic crystals
 M.M. Wachtel & K.H. Jack
 1956, Nature, 178, 1408.
155. The characterization and crystal structure of caesium antimonide - a photo-electric surface material
 M.M. Wachtel & K.H. Jack
 1957, Proc. Roy. Soc. A 239, 46.

(D) Patents

156. Speirs, D.L., Grieveson, P., & Jack, K.H.
 Improved process for nitriding iron alloys
 (National Research and Development Corporation)
 British Patent 1,303,428, 17 Jan., 1973.
157. Grieveson, P., & Jack, K.H.
 Nitriding and carburizing face-centred cubic iron alloys
 (National Research and Development Corporation)
 British Patent 1,407,395, 24 Sept., 1975.
158. Jack, K.H. & Winterburn, J.A.
 Method of stressing the surface of a sample of vitreous silica
 (The Thermal Syndicate Limited)
 British Patent 905,657, 12 Sept., 1962.
159. Jack, K.H. & Winterburn, J.A.

An improved method of fine annealing transparent vitreous silica
(The Thermal Syndicate Limited)
British Patent 905,658, 12 Sept., 1962.

160. Jack, K.H. & Stephenson, G.W.
Improvements in and relating to unicrystalline oxide material
(The Thermal Syndicate Limited)
British Patent 1,058,773, 15 Feb., 1967.
161. Jack, K.H. & Wilson, W.I.
Ceramic Materials
(Lucas Industries Limited)
British Patent 1,462,051, 19 Jan., 1977.
162. Jack, K.H. & Wilson, W.I.
Ceramic Materials
(Lucas Industries Limited)
British Patent 1,436,311, 19 May 1976.
163. Jack, K.H. & Wilson, W.I.
A method of producing ceramic materials
(Lucas Industries Limited)
British Patent 1,436,312, 19 May 1976.
164. Jack, K.H. & Wilson, W.I.
Ceramic Materials
(Joseph Lucas (Industries) Limited)
United States Patent 3,991,166, 9 Nov., 1976.
165. Jack, K.H. & Wilson, W.I.
Ceramic Materials
(Lucas Industries Limited)
British Patent 1,469,768, 6 Apr 1977.
166. Jack, K.H., & Hendry, A.
A method of producing silicon nitride
(Lucas Industries Limited)
British Patent 1,470,171, 14 Apr 1977.
167. Jack, K.H.
Composite materials and products
(The University of Newcastle upon Tyne)
European Patent Application 0169054, 22 Jan. 1986