

## Supplementary Material

### Bruce Godfrey Hyde 1925–2014

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### Bibliography

#### 1964

Hyde, B. G., Bevan, D. J. M., Eyring, L.: ‘Phase relationships in the PrO<sub>x</sub> system’, in *Rare earth research II* (Ed. K Vorres), Gordon and Breach, New York, 1964, 277–296.

#### 1965

Hyde, B. G., Garver, E. E., Kuntz, U. E., Eyring, L.: ‘Kinetic Studies on Reactions of Praseodymium Oxides in an Oxygen Atmosphere:  $\text{PrO}_{1.83} + \text{O}_2 \rightleftharpoons \text{PrO}_2$ ’, *J. Phys. Chem.* 1965, **69**(5): 1667–1675.

Hyde, B. G., Eyring, L.: ‘On phase equilibria and phase reactions in  $\text{TbO}_x + \text{O}_2$  and related systems’, in *Rare earth research III* (Ed. L Eyring), Gordon and Breach, New York 1965, 623–664.

Sawyer J. O., Hyde, B. G., Eyring, L.: ‘Fluorite-related homologous series in rare earth oxides’, *Bull. Soc. Chim. France* 1965, **4**: 1190–1199.

Anderson, J. S., Hyde, B. G.: ‘A dislocation mechanism for the production of Magnéli shear structures’, *Bull. Soc. Chim. France* 1965, **4**: 1215–1216.

Sawyer J. O., Hyde, B. G., Eyring, L.: ‘Pressure and polymorphism in rare earth oxides’, *Inorg. Chem.* 1965, **4**(3) 426–427.

Hyde, B. G., Bevan, D. J. M., Eyring, L.: On the praseodymium + oxygen system: *Phil. Trans. Roy. Soc. A* 1966, **259**(1106) 583–614.

Hyde, B. G., Eyring, L.: A comment on the paper by NI Bogdanova, GP Pirogovskaya and SM Ariya ‘Higher oxides of titanium’, *Russ. J. of Inorg. Chem.* 1965, **10**, 1539–1540.

Hyde, B. G., Bevan, D. J. M., Eyring, L.: ‘A Structural Model of the Rare-Earth Oxides’; in *Proceedings of the International Conference on Electron Diffraction and the Nature of Crystal Defects*, Melbourne 1965, published and distributed for the Australian Academy of Science by Pergamon Press, 1966, Part II, C–4.

#### 1966

Hyde, B. G.: ‘Partial dislocations, phase transformations and non-stoichiometry in metal oxides’; in *Proceedings of the International Conference on Electron Diffraction and the Nature of Crystal Defects*, Melbourne 1965, published and distributed for the Australian Academy of Science by Pergamon Press, 1966, Part II, E–2.

#### 1967

Anderson, J. S., Hyde, B. G.: On the possible role of dislocations in generating ordered and disordered shear structures: *J. Phys. Chem. Solids* 1967, **28**(8) 1393–1408.

#### 1969

Bursill, L. A., Hyde, B. G., Terasaki O, Watanabe, D: On a New Family of Titanium Oxides and the Nature of Slightly-Reduced Rutile: *Phil. Mag.* 1969, **20**(164) 347–359.

Bursill, L. A., **Hyde, B. G.**: Crystallographic shear in niobium oxyfluoride (NbO<sub>2</sub>F): *Phil. Mag.* 1969, **20**(166) 657–663.

Arnold S., Franklin, B., **Hyde B. G.**, Lacey, N., Merritt, R., Reece, G.: An improved gas-circulating pump: *Journal of Physics E* 1969, **2**(12), 1137–1139.

#### 1970

Tilley, R. J. D., **Hyde, B. G.**: An electron microscopic investigation of the decomposition of V<sub>2</sub>O<sub>5</sub>. *J. Phys. Chem. Solids* 1970, **31**(7) 1613–1619.

**Hyde, B. G.**, Bursill, L. A.: Point, line and planar defects in some non-stoichiometric compounds in *The chemistry of extended defects in non-metallic solids* (Eds. L Eyring and M O’Keeffe), North Holland, Amsterdam, 1970, 347–378.

Bursill, L. A., **Hyde, B. G.**: Displacement vectors of {132} and {101} faults in rutile: *Proc. Roy. Soc. A* 1970, **320**(1541), 147–160.

**Hyde, B. G.**: Solid state chemistry—models, theories and experiments: *Proc. Roy. Aust. Chem. Inst.* 1970, **37**, 95–99.

**Hyde, B. G.**, Tilley, R. J. D.: Deformation twinning of V<sub>2</sub>O<sub>5</sub> during chemical reduction: *Phys. Stat. Sol. (a)* 1970, **2**, 749–756.

#### 1971

Bursill, L. A., **Hyde, B. G.**: On the aggregation of Wadsley defects in slightly reduced rutile: *Phil. Mag.* 1971, **23**(181) 3–15.

Bursill, L. A., **Hyde, B. G.**: Crystal structures in the {132} family of the higher titanium oxides Ti<sub>n</sub>O<sub>2n-1</sub>: *Acta Cryst. B* 1971, **27**, 210–215.

Bursill, L. A., **Hyde, B. G.**, Philp, D. K.: New crystallographic shear families derived from the rutile structure, and the possibility of continuous ordered solid solution: *Phil. Mag.* 1971, **23**(186), 1501–1513.

**Hyde, B. G.**: Crystallographic shear relations between structure types  $\alpha$ -UO<sub>3</sub>, CaF<sub>2</sub>, La<sub>2</sub>O<sub>3</sub> and NaCl and a correlation of some lanthanide and actinide oxide structures: *Acta Cryst. A* 1971, **27**, 617–621.

#### 1972

**Hyde, B. G.**, Bursill, L. A., O’Keeffe, M., Andersson, S.: Continuous topological variation of coordination in crystals: structural relations and possible transformation mechanisms: *Nature Phys. Sci.* 1972, **237**(72), 35–38.

Bursill, L. A., **Hyde, B. G.**: CS families derived from the ReO<sub>3</sub> structure type: an electron microscope study of reduced WO<sub>3</sub> and related pseudobinary systems. *J. Sol. State Chem.* 1972, **4**(3) 430–446.

Bursill, L. A., **Hyde, B. G.**: Crystallographic shear in the higher titanium oxides: Structure, texture, mechanisms and thermodynamics. *Prog. Sol. State Chem.* 1972, **7**, 177–253.

Felmlee, T. L., Randall, C. H., **Hyde, B. G.**: On phase reactions in the system curium oxide + oxygen. *J. Sol. State Chem.* 1972, **5**(2) 286–290.

Bursill, L. A., **Hyde, B. G.**, O’Keeffe, M.: Physical and geometrical principles of crystallographic shear in rutile. In *N.B.S. Special Publication 364, Solid State Chemistry* (Eds. RS Roth and SJ Schneider). Washington, D.C., U.S. Government Printing Office, 1972, 197–204.

Bursill, L. A., **Hyde, B. G.**: Crystallographic shear in the higher titanium oxides: structure, texture, mechanism and thermodynamics. *Prog. Sol. State Chem.* 1972, **7**, 177–253.

**Hyde, B. G.**: The topology of reacting crystals. In *Proceedings of the 7<sup>th</sup> symposium on the Reactivity of Solids*, (Volume Ed. J. S. Anderson), Chapman and Hall, London, Germany, 1972, 23–37.

Bursill, L. A., **Hyde, B. G.**: Rotation faults in crystals. *Nature Phys. Sci.* 1972, **240**(102), 122–124.

#### 1973

**Hyde, B. G.**, O’Keeffe, M: Relations between the DO<sub>9</sub> (ReO<sub>3</sub>) structure type and some bronze and tunnel structures. *Acta Cryst. A* 1973, **29**, 243–248.

Merritt, R. R., **Hyde, B. G.**: The Thermodynamics of the Titanium + Oxygen System. An Isothermal Gravimetric Study of the Composition Range Ti<sub>3</sub>O<sub>5</sub> to TiO<sub>2</sub> at 1304 K. *Phil. Trans. Roy. Soc. A* 1973, **274**(1245) 627–661.

**Hyde, B. G.**, O’Keeffe, M: On mechanisms of the B1—B2 structural transformation. In *Proceedings of the Conference on Phase Transitions and Their Applications in Materials Science* (Volume Eds. H. K. Henisch, R. Roy and L. E. Cross), Pergamon Press, New York, 1973, 345–349.

#### 1974

Andersson, S., **Hyde, B. G.**: Twinning on the unit-cell level as a structure-building operation in the solid state. *J. Sol. State Chem.* 1974, **9**(1) 92–101.

**Hyde, B. G.**: Anion coordination geometry as a determining factor in crystallographic shear. *Nature* 1974, **250**(5465), 411–412.

**Hyde, B. G.**, Bagshaw AN, Andersson, S., O’Keeffe, M.: Some defect structures in crystalline solids: *Ann. Rev. Mater. Sci.* 1974, **4**, 43–92.

#### 1975

O’Keeffe, M., **Hyde, B. G.**: Relationships between the structures of the rare earth fluorides and high chalcocite  $\text{Cu}_2\text{S}$ . Implications for solid electrolyte behavior. *J. Sol. State Chem.* 1975, **13**(3), 172–175.

#### 1976

**Hyde, B. G.**: Rutile: planar defects and derived structures. In *Electron Microscopy in Mineralogy* (Eds. H.-R. Wenk, P. A. Champness), Springer-Verlag, Berlin, 1976, 310–318.

O’Keeffe, M., **Hyde, B. G.**: Cristobalites and topologically related structures. *Acta Cryst. B* 1976, **32**, 2923–2936.

Bagshaw A. N., **Hyde, B. G.**: Oxygen tracer diffusion in the magnéli phases  $\text{Ti}_n\text{O}_{2n-1}$ . *J. Phys. Chem. Solids* 1976, **37** (9), 835–838.

#### 1977

O’Keeffe, M., **Hyde, B. G.**: The solid electrolyte transition and melting in salts. *Phil. Mag.* 1976, **33**(2) 219–224.

O’Keeffe, M., **Hyde, B. G.**: Some structures topologically related to cubic perovskite ( $E_{21}$ ),  $\text{ReO}_3$  ( $\text{DO}_9$ ) and  $\text{Cu}_3\text{Au}$  ( $L_{12}$ ). *Acta Cryst. B* 1977, **33**, 3802–3813.

#### 1978

O’Keeffe, M., **Hyde, B. G.**: On Si-O-Si configurations in silicates. *Acta Cryst. B* 1978, **34**, 27–32.

O’Keeffe, M., **Hyde, B. G.**: Non-bonded interactions and the crystal chemistry of tetrahedral structures related to the wurzite type ( $B_4$ ): *Acta Cryst. B* 1978, **34**, 3519–3528.

Nyman, H., Andersson, S., **Hyde, B. G.**, O’Keeffe, M.: The pyrochlore structure and its relatives. *J. Sol. State Chem.* 1978, **26**(2), 123–131.

Bakker, M., **Hyde, B. G.**: A preliminary electron-microscope study of chemical twinning in the system  $\text{MnS}+\text{Y}_2\text{S}_3$ , an analog of the mineral system  $\text{PbS}+\text{Bi}_2\text{S}_3$  (galena+bismuthinite). *Phil. Mag. A* 1978, **38**(6) 615–628.

#### 1979

O’Keeffe, M., **Hyde, B. G.**, Bovin, J.-O.: A contribution to the crystal chemistry of orthorhombic perovskites:  $\text{MgSiO}_3$  and  $\text{NaMgF}_3$ . *Phys. Chem. Min.* 1979, **4**(4), 299–305.

**Hyde, B. G.**: Some modulation operations and derived structures. In *Modulated Structures, AIP Conference Proceedings No. 53*, (Eds. JM Cowley, JB Cohen, MB Salamon), American Institute of Physics, New York, 1979, 87–98.

Makovicky, E., **Hyde, B. G.**: On modulated, non-commensurate layer structures (nomenclature and classification). In *Modulated Structures, AIP Conference Proceedings No. 53*, (Eds. JM Cowley, JB Cohen, MB Salamon), American Institute of Physics, New York, 1979, 99–101.

O’Keeffe, M., **Hyde, B. G.**: Non-bonded interactions and the crystal chemistry of tetrahedral compounds. *Trans. Am. Cryst. Assn.* 1979, **15**, 65–75.

**Hyde, B. G.**, Andersson, S., Bakker, M., Plug, C. M., O’Keeffe, M. The (twin) composition plane as an extended defect and structure-building entity in crystals, *Prog. Sol. State Chem.*, 1979, **12**(3–4), 273–327.

#### 1980

O’Keeffe, M., **Hyde, B. G.**: Plane nets in crystal chemistry: *Phil. Trans. Roy. Soc. A* 1980, **295**(1417) 553–618.

#### 1981

Nyman, H., **Hyde, B. G.**: The related structures of  $\alpha$ -Mn, sodalite,  $\text{Sb}_2\text{Tl}_7$  etc.: *Acta Cryst. A* 1981, **37**, 11–17.

Makovicky, E., **Hyde, B. G.**: Non-commensurate (misfit) layer structures. *Structure and Bonding* 1981, **46**, 103–175.

O’Keeffe, M., **Hyde, B. G.**: The role of non-bonded forces in crystals. In *Structure and Bonding in Crystals, Vol. I.*, (Eds. M O’Keeffe and A Navrotsky). Academic Press, New York, 1981, 227–254.

O’Keeffe, M., **Hyde, B. G.**: Why olivine transforms to spinel at high pressure: *Nature* 1981, **293**(5835), 727–728.

O'Keeffe, M., Shavers, C. L., **Hyde, B. G.**: Cation packing and molar volume in oxides and nitrides with the wurtzite structure. *J. Sol. State Chem.* 1981, **39**(2), 265–267.

Andersson, S., **Hyde, B. G.**: An attempted exact, systematic, geometrical description of crystal structures: *Z. für Krist.* 1982, **158**(1–2), 119–131.

#### 1982

White, T. J., **Hyde, B. G.**: An electron microscope study of the humite minerals, I. Mg-Rich specimens. *Phys. Chem. Min.* 1982, **8**(2), 55–63.

White, T. J., **Hyde, B. G.**: An electron microscope study of the humite minerals, II. Mn-Rich specimens. *Phys. Chem. Min.* 1982, **8**(4), 167–174.

Prodan, A., Bakker, M., Versteegh, M., **Hyde, B. G.**: A microscopic study of synthetic PbS-Rich homologues  $n\text{PbS}-m\text{Bi}_2\text{S}_3$ . *Phys. Chem. Min.* 1982, **8**(4), 188–192.

O'Keeffe, M., **Hyde, B. G.**: Anion coordination and cation packing in oxides: *J. Sol. State Chem.* 1982, **44**(1), 24–31.

**Hyde, B. G.**, White, T. J., O'Keeffe, M., Johnson, A. W. S.: Structures related to those of spinel and the  $\beta$ -phase, and a possible mechanism for the transformation olivine to spinel. *Z. für Krist.* 1982, **160**(1–2), 53–62.

#### 1983

White, T. J., **Hyde, B. G.**: A description of the leucophoenicite family of structures and its relation to the humite family. *Acta Cryst. B* 1983, **39**, 10–17.

White, T. J., **Hyde, B. G.**: An electron microscope study of leucophoenicite 1983. *Am. Miner.* 1983, **68**(9–10), 1009–1021.

Otero-Diaz, L. C., **Hyde, B. G.**: On the non-stoichiometric ytterbium sulfide phase  $\text{Yb}_{3-\delta}\text{S}_4$ . *Acta Cryst. B* 1983, **39**, 569–575.

Smith P. P. K., **Hyde, B. G.**: The homologous series  $\text{Sb}_2\text{S}_3.n\text{PbS}$ : structures of diantimony dilead pentasulphide,  $\text{Pb}_2\text{Sb}_2\text{S}_5$ , and the related phase diantimony ditin pentasulphide,  $\text{Sn}_2\text{Sb}_2\text{S}_5$ . *Acta Cryst. C* 1983, **39**, 1498–1502.

#### 1984

Otero-Diaz, L. C., **Hyde, B. G.**: A high resolution electron microscopy study of disorder in 2 types of rutile-related crystallographic shear phases. *Acta Cryst. B* 1984, **40**, 237–244.

O'Keeffe, M., **Hyde, B. G.**: Stoichiometry and the structure and stability of inorganic solids. *Nature* 1984, **309**(5967), 411–414.

Nyman, H., **Hyde, B. G.**, Andersson, S.: Zircon, anhydrite, scheelite and some related structures containing bidisphenoids. *Acta Cryst. B* 1984, **40**, 441–447.

Otero-Diaz, L. C., Hiraga, K., Sellar, J. R., **Hyde, B. G.**: An electron microscope examination of scandium sesquisulphide,  $\text{Sc}_2\text{S}_3$ , and its mode of disordering in the electron beam. *Acta Cryst. B* 1984, **40**, 355–359.

#### 1985

O'Keeffe, M., **Hyde, B. G.**: An alternative approach to non-molecular crystal structures – with emphasis on the arrangement of cations. *Structure and Bonding* 1985, **61**, 77–144.

Otero-Diaz, L. C., FitzGerald, J. D.; Williams, T. B., **Hyde, B. G.**: On the monoclinic binary-layer compound 'LaCrS<sub>3</sub>'. *Acta Cryst. B* 1985, **41**, 405–410.

Barbier, J., Hyde, B. G.: The structures of the polymorphs of dicalcium silicate,  $\text{Ca}_2\text{SiO}_4$ . *Acta Cryst. B* 1985, **41**, 383–390.

Barbier, J., Kiraga, K., Otero-Diaz, L. C., White, T. J., Williams, T. B., **Hyde, B. G.**: Electron microscope studies of some inorganic and mineral oxide and sulphide systems. *Ultramicroscopy* 1985, **18**(1–4), 211–234.

#### 1986

Parise, J. B., **Hyde, B. G.**: The structure of atacamite and its relationship to spinel. *Acta Cryst. C* 1986, **42**, 1277–1280.

Stenberg, L., Sellar, J. R., **Hyde, B. G.**: Incommensurately modulated  $\alpha'$ - $\text{Sr}_2\text{SiO}_4$ . *Nature* 1986, **320**(6061), 428–429.

Liu, L. G., **Hyde, B. G.**: High-pressure polymorphism of  $\text{Ca}_2\text{SiO}_4$ . *Earth Planet. Sci. Lett.* 1986, **18**, 317–318.

Stenberg, L., **Hyde, B. G.**: A preliminary electron-microscope study of the  $\beta$  to  $\alpha'$  transformation of distrontium silicate,  $\text{Sr}_2\text{SiO}_4$ . *Acta Cryst. B* 1986, **42**, 417–422.

**Hyde, B. G.**, Sellar, J. R., Stenberg, L.: The  $\beta$  to  $\alpha'$  transition in  $\text{Sr}_2\text{SiO}_4$  (and  $\text{Ca}_2\text{SiO}_4$ ,  $\text{K}_2\text{SeO}_4$  etc.), involving a modulated structure. *Acta Cryst. B* 1986, **42**, 423–429.

Barbier, J., **Hyde, B. G.**: Spinelloid phases in the system  $\text{MgGa}_2\text{O}_4$ - $\text{Mg}_2\text{GeO}_4$ . *Phys. Chem. Min.* 1986, **13**(6), 382–392.

**Hyde, B. G.**: Inorganic and Mineral Structures Reconsidered. *Proc. Roy. Soc. New South Wales* 1986, **119**, 153–164.

**Hyde, B. G.**: Non bonded-cation-cation repulsions in simple structures: consequences and examples of interest to the structural/solid state-chemist. *Revista de la Real Acad. de Ciencias Exactas, Fisicas Y Naturales de Madrid* 1986. Tomo LXXX, Cuaderno 3.º, 269–282.

## 1987

**Hyde, B. G.**: The effect of non-bonded, anion-anion interactions on the  $\text{CaCl}_2$ /rutile transformation and on the bond lengths in the rutile type. *Z. für Krist.* 1987, **179**(1–4), 205–213.

Withers, R. L., **Hyde B.G.**, Thompson, J. G.: An electron diffraction study of the incommensurately modulated  $\alpha'$ -phase of diantimony silicate,  $\text{Sr}_2\text{SiO}_4$ . *J. Phys. C* 1987, **20**(11), 1653–1669.

Barbier, J., **Hyde, B. G.**:  $\text{Mg}_7\text{Ga}_2\text{GeO}_{12}$ , a new spinelloid-related compound, and the structural relations between spinelloids (including spinel) and the  $\beta$ - $\text{Ga}_2\text{O}_3$  and  $\text{NaCl}$  types. *Acta Cryst. B* 1987, **43**, 34–40.

**Hyde, B. G.**, Thompson, J. G., Withers, R. L., Fitz Gerald, J. D., Stewart, A. M., Bevan, D. J. M., Anderson, J. S., Bitmead, J., Paterson, M. S.: The room-temperature structure of the approximately 90°K superconducting phase  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ . *Nature* 1987, **327**(6121), 402–403.

Thompson, J. G., Withers, R. L., **Hyde, B. G.**: Further consideration of phases in the system  $\text{Ba}_2\text{SiO}_4$ - $\text{Ca}_2\text{SiO}_4$ . *J. Amer. Ceram. Soc.* 1987, **70**(12), C383–C386.

Thompson, J. G., **Hyde, B. G.**, Withers, R. L., Anderson, J. S., FitzGerald, J. D., Bitmead, J., Paterson, M. S., Stewart, A. M.: Atmospheric degradation of the high-temperature superconductor,  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ . *Mat. Res. Bull.* 1987, **22**, 1715–1724.

Pring, A., **Hyde, B. G.**: Structural disorder in Lindstromite—a bismuthinite aikinite derivative. *Can. Miner.* 1987, **25**(3), 393–399.

Withers, R. L., Thompson, J. G., **Hyde, B. G.**: Modulated phases in the  $\text{Ca}_2\text{SiO}_4$  -  $\text{Ba}_2\text{SiO}_4$  system. Proc. of the Fourteenth Congress of the IUCr, *Acta Cryst. A* 43, 1987, C–310.

Lincoln, F. J., Franklin, B., **Hyde, B. G.**: The Effect of Oxygen Pressure and Temperature on the Oxygen Content of  $\text{YBa}_2\text{Cu}_3\text{O}_x$ . *Aust. Physicist* 1987, **24**, 169.

## 1988

Otero-Diaz, L. C., Landa-Canovas, A. R., **Hyde, B. G.**: A microstructural study of the Yb-S system – a new rhombohedral 2-dimensional modulated structure between YbS and  $\text{Yb}_3\text{S}_4$ . *IOP Conf. Series* 1988, **93**, 333–334.

Williams, T. B., **Hyde, B. G.**: Electron microscopy of cylindrite and franckeite. *Phys. Chem. Min.* 1988, **15**(6), 521–544.

Withers, R. L., Anderson, J. S., **Hyde, B. G.**, Thompson, J. G., Wallenberg, L. R., Fitz Gerald, J. D., Stewart, A. M.: An electron diffraction and group theoretical study of the new Bi-based high-temperature superconductor. *J. Phys. C* 1988, **21**(13), L417–L424.

Lincoln, F. J., Sellar, J. R., **Hyde, B. G.**: A new examination of the thermodynamic properties of the oxygen-deficient fluorite-type phase  $\alpha$ - $\text{PrO}_{2.8}$ . *J. Sol. State Chem.* 1988, **74**(2), 268–276.

FitzGerald, J. D., Withers, R. L., Thompson, J. G., Wallenberg, L. R., Anderson, J. S., **Hyde, B. G.**: Incipient modulation in the new high-temperature superconductor:  $\text{Tl}_2\text{Ba}_2\text{CaCu}_2\text{O}_8$ . *Phys. Rev. Letts.* 1988, **60**(26), 2797–2799.

Barbier, J., **Hyde, B. G.**: The structure of sapphirine – its relation to the spinel, clinopyroxene and  $\beta$ -gallia structures. *Acta Cryst. B* 1988, **44**, 373–377.

Williams, T. B., **Hyde, B. G.**: Electron diffraction studies from some so-called  $\text{LnMS}_3$  layer compounds isostructural with  $\sim \text{LaCrS}_3$  and from cannizarite,  $\sim \text{Pb}_{46}\text{Bi}_{54}\text{S}_{127}$ . *Acta Cryst. B* 1988, **44**, 467–474.

Stewart, A. M., Anderson, J. S., Thompson, J. G., **Hyde, B. G.**, Withers, R. L., FitzGerald, J. D., Paterson, M. S., Bitmead, J.: Chemically substituted high temperature superconducting oxides studied by electrical resistivity. *Mat. Chem. Phys.* 1988, **20**(4–5), 397–408.

Withers, R. L., Thompson, J. G., Wallenberg, L. R., FitzGerald, J. D., Anderson, J. S., **Hyde, B. G.**: A transmission electron microscope and group theoretical study of the new Bi-based high- $T_c$  superconductors and some closely related Aurivillius phases. *J. Phys. C* 1988, **21**(36), 6067–6083.

Withers, R. L., Thompson, J. G., **Hyde, B. G.**: Modulated phases in the  $Ba_2SiO_4$ - $Ca_2SiO_4$  system of  $A_2BX_4$ ,  $K_2SO_4$ -related structures. *Cryst. Rev.* 1988, **1**, 25–64.

Thompson, J. G., **Hyde, B. G.**, Withers, R. L., Wallenberg, L. R., FitzGerald, J. D., Anderson, J. S.: The growing family of Cu-containing Superconducting Oxides. *Chem. in Aust.* 1988, **55**(8), 285–287.

#### 1989

**Hyde, B. G.** and Andersson, S.: *Inorganic Crystal Structures*, John Wiley, 1989; xviii + 430 pp.

Withers, R. L., Welberry, T. R., Hua, G. L., Thompson, J. G., **Hyde, B. G.**: A transmission electron microscopy study of cristobalite. *Phase Trans.* 1989, **16/17**, 41–45.

Withers, R. L., Thompson, J. G., **Hyde, B. G.**: A transmission electron microscope study of modulated sodium-lithium metasilicates. *Acta Cryst. B* 1989, **45**, 136–141.

Wallenberg, L. R., Withers, R. L., Bevan, D. J. M., Thompson, J. G., **Hyde, B. G.**: The fluorite-related solid solutions of  $CeO_2 + Y_2O_3$ . Part I: A re-examination by electron microscopy/diffraction. *J. Less Common Metals* 1989, **156**, 1–16.

Withers, R. L., Thompson, J. G., **Hyde, B. G.**: A modulation wave approach to the structural description of the  $Nb_2Zr_{x-2}O_{2x+1}$  :  $x = 7.1$ - $10.3$  solid solution field. *Acta Cryst. B* 1989, **47**, 166–174.

Withers, R. L., Wallenberg, L. R., Bevan, D. J. M., Thompson, J. G., **Hyde, B. G.**: The fluorite-related solid solutions of  $CeO_2 + Y_2O_3$  II: A modulated structure approach. *J. Less Common Metals* 1989, **156**, 17–27.

#### 1990

Withers, R. L., **Hyde, B. G.**, Prodan, A., Boswell, F. W.: The Incommensurately Modulated Non-Stoichiometric Ytterbium Sulfide Phase  $Yb_{3-\delta}S_4$ : *J. Phys.:Cond. Matt.* 1990, **2**(18), 4051–4058.

Thompson, J. G., Withers, R. L., Sellar, J. R., Barlow, P. J., **Hyde, B. G.**: Incommensurately modulated  $Nb_2Zr_{x-2}O_{2x+1}$  :  $x = 7.1$ - $10.3$ : *J. Sol. State Chem.* 1990, **88**(2) 465–475.

Otero-Diaz, L. C., Landa-Canovas, A. R., **Hyde, B. G.**: A study of the Yb+S system mainly by electron diffraction/microscopy. *J. Sol. State Chem.* 1990, **89**(2), 237–259.

#### 1991

Nyman, H., Carroll, C. E., **Hyde, B. G.**: Rectilinear rods of face-sharing tetrahedra and the structure of  $\beta$ -Mn. *Z. für Krist.* 1991, **196**(1–4) 39–46.

#### 1992

**Hyde, B. G.**, O’Keeffe, M.; Lyttle, W. M. and Brese, N. E.: Alternative descriptions of the  $C23(PbCl_2)$ ,  $C37(Co_2Si)$ ,  $B8_b(Ni_2In)$  and related structure types. *Acta Chem. Scand.* 1992, **46**(3), 216–223.

Otero-Diaz, L. C., Landa-Canovas, A. R., Fernandez, F., Saez-Puche, R., Withers, R. L., **Hyde, B. G.**: A TEM study of the ordering of excess interstitial oxygen atoms in  $Ln_2NiO_{4+\delta}$  ( $Ln = La, Nd$ ). *J. Sol. State Chem.* 1992, **97**(2) 443–451.

Makaovicky, E., **Hyde, B. G.**: Incommensurate, two-layer structures with complex crystal chemistry; minerals and related synthetics. In *Incommensurate Sandwiched Layered Compounds*, *Mater. Sci. Forum* 1992, **100–101**, 1–100.

**Hyde, B. G.**: John Stuart Anderson (9 January 1908–25 December 1990): *Historical Records of Australian Science* 1992, **9**, 127–149 and *Biographical Memoirs of the Royal Society*, 1992, **38**, 1–26.

#### 1993

**Hyde, B. G.**, Thompson, J. G., Withers, R. L.: Crystal Structure of the principal Ceramic Materials: Chapter 1 of *Structure and Properties of Ceramics* (Volume Ed. M.Swain), Vol. 11 of *Materials Science and Technology* (Series Eds. R.Cahn, P.Haasen, E.Kramer), VCH, Weinheim, Germany, 1993, 1–45

#### 1996

O’Keeffe, M. and **Hyde, B. G.**: *Crystal structures*, Mineralogical Society of America, 1996; 453 pp.

**Hyde, B. G.**, McLaren, A: The crystal chemistry of moganite and amethyst. *Aust. J. Chem.* 1996, **49**(8), 861–866.

**Hyde, B. G.** and O’Keeffe, M.: Marcasite and pyrite ( $FeS_2$ ). *Aust. J. Chem.* 1996, **49**(8), 867–872.

#### 2003

**Hyde, B. G.**: David Wadsley’s collaboration with Sten Andersson in the 1960s (and with Roth and Gatehouse). *Sol. State Sciences* 2003, **5**(1), 15–29.