References

In this reference list the arrangement is alphabetical by author surname for works by sole authors and dual authors. Where there are references that include the first-named author with others, the sole-author works are listed chronologically first, followed by the dual author references (alphabetically) followed by the references with three or more authors listed *chronologically*. Chronological order is used within each group of identical authors.

Abdul-Samad, F., Thomas, J.H., Williams, P.A., Bideaux, R.A. and Symes, R.F. (1982) Mode of formation of some rare copper (H) and lead (H) minerals from aqueous solution, with particular reference to deposits at Tiger, Arizona. *transition Metal Chemistry*, 7, *3*2–7.

Abraham, G.D. (1917) The most valuable mine of today. The Autocar, January 27th 1917, 81-3.

Adams, J. (1988) *Mines of the Lake District Fells,* Dalesman Books, Clapham, 160 pp.

Aitkenhead, N. and Chisholm, J.I. (1982) A standard nomenclature for the Dinantian formations of the Peak District of Derbyshire and Staffordshire. *Report of the Institute of Geological Sciences*, 82/8, 18 pp.

Aitkenhead, N., Chisholm, J.I. and Stevenson, I.P. (1985) *Geology of the Country Around Buxton, Leek and Bakewell,* Memoir of the British Geological Survey, Sheet 111 (England and Wales), HMSO, London, 168 pp.

Alabaster, C.J. (1975) Some copper, lead and manganese minerals from Merehead Quarry, east Mendips. *Proceedings* of the Bristol Naturalists' Society, 34, 76–104.

Alabaster, C.J. (1976) Post Inferior Oolite mineralisation at Whatley Quarry, east Mendip. *Proceedings of the Bristol Naturalists' Society*, 35, 73–84.

Alabaster, C.J. (1982) *The Minerals of Mendip, Proceedings of Somerset Mines Research Group,* Vol. 1, No. 4, Somerset Mines Research Group, Highbridge, 54 pp.

Alabaster, C. (1989) The Wesley Mine: a further occurrence of manganese-hosted lead oxychloride minerals in the Bristol district. *Journal of the Russell Society*, 2, 29–47.

Alabaster, C. (1990) Alstonite and barytocalcite from Llantrisant, South Wales, and barytocalcite from Holwell, Mendip Hills, England. *Journal of the Russell Society*, 3, 1–6.

Alderton, D.H.M. (1978) Fluid inclusion data for lead-zinc ores from SW England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 87, B132–5.

Alderton, D.H.M. (1993) Mineralization associated with the Cornubian Granite Batholith. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 270–354.

Alderton, D.H.M. and Bevins, R.E. (1996) *P-T* conditions in the South Wales Coalfield: evidence for coexisting hydrocarbon and aqueous fluid inclusions. *Journal of the Geological Society of London*, 153, 265–75.

Alderton, D.H.M. and Jackson, N.J. (1978) Discordant calc-silicate bodies from the St. Just aureole, Cornwall. *Mineralogical Magazine*, 42, 427–34.

Alderton, D.H.M., Otoby, N., Brice, H., Grassineau, N. and Bevins, R.E. (2004) The link between fluids and rank variation in the South Wales Coalfield: evidence from fluid inclusions and stable isotopes. *Geofluids*, 4, 221–36.

Allen, P.M. (1982) Copper Mineralisation in Great Britain. In *Special Publication UNESCO-IGCP Projects 169 and 63* (eds S. Jankovic and R.H. Sillitoe), No. 1, Department of Economic Geology, Belgrade University, Belgrade, pp. 266–76.

Allen, P.M. and Easterbrook, G.D. (1978) Mineralised breccia pipe and other intrusion breccias in the Harlech Dome, N. Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 87, B157–61.

Allen, P.M. and Jackson, A.A. (1985) *Geology of the Country Around Harlech,* Memoir of the British Geological Survey, Sheet 135 with part of 149 (England and Wales), HMSO, London, 111 pp.

Allen, P.M., Cooper, D.C., Fuge, R. and Rea, J. (1976) Geochemistry and relationships to mineralisation of some igneous rocks from the Harlech Dome. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 85, B100–108.

Allen, P.M., Cooper, D.C. and Smith, I.F. (1979) Mineral exploration in the Harlech Dome, North Wales. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 29, 172 pp.

Allen, P.M., Jackson, A.A. and Rushton, A.W.A. (1981) The stratigraphy of the Mawddach Group in the Cambrian succession of North Wales. *Proceedings of the Yorkshire Geological Society*, 43(3), 295–329.

Allman-Ward, P., Hall, C., Rankin, A.H. and Bristow, C.M. (1982) An intrusive hydrothermal breccia body at Wheal Remfry in the western part of the St Austell granite pluton, Cornwall, England. In *Metallization Associated with Acid Magmatism* (ed. A.M. Evans), Wiley Chichester, pp. 1–28.

Almond, J.K. (1977) The Nenthead and Tyndale Lead & Zinc Company Ltd, 1882–1896. *Memoirs of the Northern Mine Research Society*, 5, 22–40.

Anderton, R., Gibbons, W and Nicholson, P.G. (1992) Precambrian. In *Atlas of Palaeogeograpby and Lithofacies* (eds J.C.W. Cope, J.K. Ingham and P.F. Rawson), *Geological Society of London Memoir,* No. 13, Geological Society of London, Bath, pp. 5–12.

Angerstein, R.R. (1755) Journal of a journey through England (1735–1755). English Translation. In *Copper Mining in Middleton Tyas* (TR. Homshaw (1975)), *North Yorkshire County Record Office Publication*, No. 6, North Yorkshire County Council, Northallerton, pp. 159–65.

Annels, A.E. and Burnham, B.C. (1995) *The Dolaucothi Gold Mines: Geology and Mining History,* 3rd edn, University of Wales, Cardiff, 83 pp.

Annels, A.E. and Roberts, D.E. (1989) Turbidite-hosted gold mineralization at the Dolaucothi Gold Mines, Dyfed, Wales, United Kingdom. *Economic Geology*, 84, 1293–314.

Anon (1973) Visit to the pit of the Leicester Brick and The Co. Ltd. Russell Society Newsletter, 1 (3).

Ansari, S.M. (1983) Petrology and petrochemistry of the Eskdale and adjacent intrusions (Cumbria) with special reference to mineralization. Unpublished PhD thesis, University of Nottingham.

Appleton, J.D. and Wadge, A.J. (1976) Investigation of tungsten and other mineralization associated with the Skiddaw Granite near Carrock Mine, Cumbria. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 7.

Appleton, P (1995) Geology, Mining Development and Limestone Caves. In *Minera Lead Mines and Quarries* (ed. J. Bennett), Wrexham Maelor Borough Council, Wrexham, pp. 15–29.

Armstrong, R., Herrington, R.J. and Savage, M.A. (2003) Tennantite and tyrolite from the Coed y Brenin Forest, North Wales. *Journal of the Russell Society*, 8, 18.

Arnold-Bemrose, H.H. (1894) On the Microscopic Structure of the Carboniferous Dolerites and Tuffs of Derbyshire. *Quarterly Journal of the Geological Society of London*, 50, 603–45.

Arnold-Bemrose, H.H. (1898) On a quartz-rock in the Carboniferous Limestone of Derbyshire. *Quarterly Journal of the Geological Society of London,* 54, 169–83.

Arnold-Bemrose, H.H. (1910), On Olivine Nodules in the Basalt of Calton Hill, Derbyshire. Geological Magazine, 7, 1–5.

Arthurton, R.S., Johnson, E.W. and Mundy, D.J.C. (1988) *Geology of the Country Around Settle,* Memoir of the British Geological Survey, Sheet 60 (England and Wales), HMSO, London, 147 pp.

Ashton, J.H. (1981) Wallrock geochemistry and ore geology of certain mineralized veins in Wales. Unpublished PhD thesis, University of Wales, Aberystwyth.

Astin, T.R. (1986) Septarian crack formation in carbonate concretions from shales and mudstones. *Clay Minerals*, 21, 617–31.

Ayora, C. and Phillips, R. (1981) Natural occurrences in the systems $PbS-Bi_2S_3-Sb_2S_3$ and $PbS-Sb_2S_3$ from Vall de Ribes, Eastern Pyrenees, Spain. *Bulletin de Minéralogie,* 104, 556–64.

Badham, J.P.N., Stanworth, C.W. and Lindsay, R.P. (1976) Post emplacement events in the Cornubian batholith. *Economic Geology*, 71, 534–9.

Ball, T.K. and Basham, I.R. (1979) Radioactive accessory minerals in granites from southwest England. *Proceedings of the Ussher Society*, 4, 437–48.

Ball, T.K. and Bland, D.J. (1985) The Cae Coch volcanogenic massive sulphide deposit, Trefriw, North Wales. *Journal of the Geological Society of London*, 142, 889–98.

Ball, T.K. and Nutt, M.J.C. (1975) Preliminary mineral reconnaissance of Central Wales. *Report of the Institute of Geological Sciences*, No. 75/14, 12 pp.

Ball, T.K., Basham, I.R. and Michie, U.M. (1982) Uraniferous vein occurrences of south-west England — paragenesis and genesis. In *Vein-type and Similar Uranium Deposits in Rocks Younger than the Proterozoic,* International Atomic Energy Agency, Vienna (TC-295/9), pp. 113–58.

Ball, T.K., Fortey, N.J. and Shepherd, T.J. (1985) Mineralisation at the Carrock Fell Tungsten Mine, N. England: Paragenetic, fluid inclusion and geochemical study. *Mineralium Deposita*, 20, 57–65.

Bannister, F.A. (1934) The crystal structure and optical properties of matlockite. *Mineralogical Magazine*, 23, 587–97.

Barber, A.J. and Max, M.D. (1979) A new look at the Mona Complex (Anglesey, North Wales). *Journal of the Geological Society of London*, 136, 407–32.

Barclay, C.F. (1931) Some notes on the West Devon Mining District. *Transactions of the Royal Geological Society of Cornwall*, 16, 157–76.

Barrett, T.J., Tennant, S.C. and Tyler, P.A. (1998) Parys Mountain massive sulphide deposits, Anglesey: volcanic stratigraphy, lithochemistry and geological setting. In *Snowdon Volcanic Centre and Parys Volcanic Group, North Wales, and Associated Hydrothermal Mineralization* (eds P.T. Leat and R.C. Willan), *Geoscience '98 Post-conference Field Excursion Guide,* pp. 38–47.

Barrett, T.J., Tennant, S.C. and Maclean, W.H. (1999) *Geology and Mineralization of the Parys Mountain Polymetallic Sulphide Deposit, Wales, U.K* Unpublished Report for Anglesey Mining, Wales, by Ore Systems Consulting, Vancouver.

Barrington, N. and Stanton, W.I. (1977) *The Complete Caves of Mendip,* 3rd edn, Barton Productions and Cheddar Valley Press, Cheddar, 236 pp.

Barton, D.B. (1963) A Guide to the Mines of West Cornwall, D. Bradford Barton Ltd, Truro, 50 pp.

Basso, R., Lucchetti, G., Zefiro, L. and Palenzona, A. (1996) Rosiaite, PbSb₂O₆, a new mineral from the Cetine mine, Siena, Italy. *European Journal of Mineralogy*, 8, 487–92.

Bates, D.E.B. (1966) The geology of Parys Mountain. Welsh Geological Quarterly, 2, 27-9.

Bates, D.E.B. (1972) The stratigraphy of the Ordovician rocks of Anglesey. Geological Journal, 8, 29-58.

Bates, D.E.B. (1974) The structure of the Lower Palaeozoic rocks of Anglesey, with special reference to faulting. *Geological Journal*, 9, 39–60.

Bauer, M. (1871) Krystallographische Untersuchung des Scheelits. *Wurttembergische Naturwissenschaftliche jahreshefte*, 129–98.

Baumann, L. (1970) Tin deposits of the Erzgebirge. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 79, B68–75.

Beadle, H.L. (1971) Lady's Rake Mine, Harwood-in-Teesdale. Cleveland Industrial Archaeologist, 7, 17-23.

Beadle, H.L. (1980) *Mining and Smelting in Teesdale, Cleveland Industrial Archaeological Society Research Report,* No. 3, The Cleveland Industrial Archaeology Society, Redcar, 40 pp.

Beavon, R.V. (1980) A resurgent cauldron in the early Palaeozoic of Wales, U.K. *Journal of Volcanology and Geothermal Research*, 7, 157–74.

Beddoe-Stephens, B. and Fortey, N.J. (1981) Columbite from the Carrock Fell tungsten deposit. *Mineralogical Magazine*, 44, 217–23.

Beer, K.E. and Fenning, P.J. (1976) Geophysical anomalies and mineralisation at Sourton Tors, Okehampton, Devon. *Report of the Institute of Geological Sciences*, 76/1, 38 pp.

Bennett, F.W., Lowe, E.E., Gregory, H.H. and Jones, F. (1928) The geology of Charnwood Forest. *Proceedings of the Geologists' Association*, 39, 241–98.

Bennett, M.A. (1987) Genesis and diagenesis of the Cambrian manganese deposits, Harlech, North Wales. *Geological Journal*, 22, 7–18.

Benton, M.J., Cook, E. and Turner, P (2002) *Permian and Tdassic Reds Beds and the Penarth Group of Great Britain,* Geological Conservation Review Series, No. 24, Joint Nature Conservation Committee, Peterborough, 37 pp.

Betterton, J. (2000) Famous Mineral Localities: Penberthy Croft Mine St. Hilary, Cornwall, England. UK Journal of Mines and Minerals, 20, 20–37.

Betterton, J. (2010) Penberthy Croft Study Group Report. Unpublished report for Natural England, 10 pp.

Betterton, J., Green, D.I., Jewson, C., Spratt, J. and Tandy, P (1998) The composition and structure of jeanbandyite and natanite. *Mineralogical Magazine*, 62, 707–12.

Beudant, F.S. (1832) 7kaite Elernentaire de Minera-logie, 2nd edn, Verdiere, Paris, 2 volumes.

Bevins, R.E. (1985) Pumpellyite-dominated metadomain alteration at Builth Wells, Wales evidence for a fossil hydrothermal system? *Mineralogical Magazine*, 49, 451–6.

Bevins, R.E. (1994) A Mineralogy of Wales, National Museum of Wales Geological Series, No. 16, National Museum of Wales, Cardiff, 146 pp.

Bevins, R.E. and Mason, J.S. (1997) Welsh Metallophyte and Metallogenic Evaluation Project: Results of a Minesite Survey of Dyfed and Powys, Countryside Council for Wales Contract Science Report, No. 156, National Museums Sr Galleries of Wales, Cardiff

Bevins, R.E. and Mason, J.S. (1998) *Welsh Metallophyte and Metallogenic Evaluation Project: Results of a Minesite Survey of Gwynedd,* Countryside Council for Wales Contract Science Report, No. 257, National Museums & Galleries of Wales, Cardiff.

Bevins, R.E. and Mason, J.S. (1999) Welsh Metallophyte and Metallogenic Evaluation Project: Results of a Minesite Survey of Clwyd, Countryside Council for Wales Contract Science Report, No. 318, National Museums & Galleries of Wales, Cardiff.

Bevins, R.E. and Mason, J.S. (2000) Welsh Metallophyte and Metallogenic Evaluation Project: Results of a Minesite Survey of Glamorgan and Gwent, Countryside Council for Wales Contract Science Report, No. 386, National Museums & Galleries of Wales, Cardiff.

Bevins, R.E. and Robinson, D. (1988) Low grade metamorphism in the Welsh Basin Lower Palaeozoic succession: an example of diastathermal metamorphism? *Journal of the Geological Society of London,* 145, 363–6.

Bevins, R.E. and Robinson, D. (1993) Parageneses of Ordovician sub-greenschist to greenschist facies metabasites from Wales, U.K. *European Journal of Mineralogy*, 5, 925–35.

Bevins, R.E. and Rowbotham, G. (1983) Low-grade metamorphism within the Welsh sector of the paratectonic Caledonides. *Geological Journal*, 18, 141–67.

Bevins, R.E. and Sharpe, T. (1982) Welsh Minerals, National Museum of Wales, Cardiff, 28 pp.

Bevins, R.E. and Stanley, C.J. (1990) Aleksite, a lead bismuth sulfotelluride: a second world occurrence from the Dolgellau Gold Belt, Gwynedd, Wales. *Journal of the Russell Society,* 3, 67–9.

Bevins, R.E., Kokelaar, B.P. and Dunkley, P.N. (1984) Petrology and geochemistry of lower to middle Ordovician igneous rocks in Wales: a volcanic arc to marginal basin transition. *Proceedings of the Geologists' Association*, 95, 337–47.

Bevins, R.E., Rowbotham, G., Stephens, E.S., Turgoose, S. and Williams, P.A. (1985) Lanthanite-(Ce), (Ce,La,Nd)₂(CO₃)₃.8H₂O, a new mineral from Wales, U.K. *American Mineralogist*, 70, 411–13.

Bevins, R.E., Alderton, D.H.M. and Horak, J.M. (1988) Lead-antimony mineralization at Bwlch Mine, Deganwy, Wales. *Mineralogical Magazine*, 52, 391–4.

Bevins, R.E., Horak, J.M., Evans, A.D. and Morgan, R. (1996a) Palaeogene dyke swarm, NW Wales: evidence for Cenozoic sinistral fault movement. *Journal of the Geological Society of London*, 153, 177–80.

Bevins, R.E., White, S.C. and Robinson, D. (1996b) The South Wales Coalfield: low grade metamorphism in a foreland basin setting? *Geological Magazine*, 133, 739–49.

Bick, D.E. (1975) *The Old Metal Mines of Mid-Wales. Part 2, Cardiganshire — the Rheidol to Goginan,* Pound House, Newent, 52 pp.

Bick, D.E. (1976) *The Old Metal Mines of Mid-Wales. Part* 3, *Cardiganshire — North of Goginan,* Pound House, Newent, 72 pp.

Bick, D.E. (1977) The Old Metal Mines of Mid-Wales. Part 4, West Montgomeryshire, Pound House, Newent, 64 pp.

Bick, D.E. (1982) The Old Copper Mines of Snowdonia, Pound House, Newent, 129 pp.

Bick, D.E. (1985) The Old Copper Mines of Snowdonia, 2nd edn, Pound House, Newent, 129 pp.

Bick, D.E. (1990) The Old Metal Mines of Mid-Wales. Parts 4 and 5, West Montgomeryshire, Aberdovey, Dinas Mawddwy and Llangynog, 2nd edn, Pound House, Newent 116 pp.

Bick, D.E., Parkinson, A.J. and Briggs, C.S. (1986) *Frongoch Lead and Zinc Mine, British Mining,* No. 30, Northern Mine Research Society, Sheffield, 57 pp.

Binstock, J.L.H. (1977) Petrology and sedimentation of the Cambrian manganese-rich sediments of the Harlech Dome, North Wales. Unpublished PhD thesis, Harvard University.

Blundell, D. (1992) Wolfram. In *Beneath the Lakeland Fells: Cumbria's Mining Heritage* (ed. Cumbria Amenity Trust Mining History Society), Red Earth Publications, Ulverston, pp. 107–16.

Boase, H.S. (1832) Contributions towards a knowledge of the geology of Cornwall. *Transactions of the Royal Geological Society of Cornwall*, 4, 166–474.

Boast, A.M., Harris, D. and Steffe, D. (1990) Intrusive-hosted gold mineralization at Hare Hill, Southern Uplands, Scotland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 99, B106–12.

Bonney, T.G. (1895) Supplementary note on the Narborough District, Leicestershire. Quarterly Journal of the Geological Society of London, 51, 24–34.

Booker, F. (1967) The Industrial Archaeology of the Tamar Valley, David and Charles, Newton Abbot, 303 pp.

Booth, B. and Exley, C.S. (1987) Petrological features of the Land's End granites. *Proceedings of the Ussher Society*, 6, 439–46.

Bor, L. (1950) Pisanite from Parys Mountain, Anglesey. *Mineralogical Magazine*, 29, 63-7.

Borlase, W (1758) The Natural History of Cornwall, Printed for the author by W. Jackson, Oxford, 326 pp.

Bosworth, T.D. (1912) *The Keuper Marls Around Charnwood Forest,* Leicester Literary and Philosophical Society, Leicester, 129 pp.

Bott, M.H.P. (1967) Geophysical investigations of the northern Pennine basement rocks. *Proceedings of the Yorkshire Geological Society*, 36, 139–68.

Bott, M.H.P. and Masson-Smith, D. (1957) The geological interpretation of a gravity survey of the Alston Block and the Durham Coalfield. *Quarterly Journal of the Geological Society of London*, 113, 93–117.

Bott, M.H.P., Day, A.A. and Masson-Smith, D. (1958) The geological interpretation of gravity and magnetic surveys in Devon and Cornwall. *Philosophical Transactions of the Royal Society of London,* A251, 161–91.

Bottrell, S.H. and Morton, M.D.B. (1992) A reinterpretation of the genesis of the Cae Coch pyrite deposit, North Wales. *Journal of the Geological Society of London*, 149, 581–4.

Bottrell, S.H. and Spiro, B. (1988) A stable isotope study of black shale-hosted gold mineralization in the Dolgellau Gold Belt, North Wales. *Journal of the Geological Society of London,* 145, 941–9.

Bottrell, S.H., Shepherd, T.J., Yardley, B.W.D. and Dubessy, J. (1988) A fluid inclusion model for the genesis of the ores of the Dolgellau Gold Belt, North Wales. *Journal of the Geological Society of London,* 145, 139–45.

Bottrell, S.H., Greenwood, P.B., Yardley, B.W.D., Shepherd, T.J. and Spiro, B. (1990) Metamorphic and post-metamorphic fluid flow in low grade rocks of the Harlech Dome, N. Wales. *Journal of Metamorphic Geology*, 8, 131–43.

Bouch, J.E., Naden, J., Shepherd, T.J., McKervey, J.A., Young, B., Benham, A.J. and Sloane, H.J. (2006) Direct evidence of fluid mixing in the formation of stratabound Pb-Zn-Ba-F mineralization in the Alston Block, North Pennine Orefield (England). *Mineralium Deposita*, 41, 821–35.

Bowman, H.L. (1911) On the occurrence of bertrandite at the Cheesewring Quarry, near Liskeard, Cornwall. *Mineralogical Magazine*, 16, 47–50.

Boyce, A.J., Anderton, R. and Russell, M.J. (1983). Rapid subsidence and early Carboniferous mineralisation in Ireland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 92, B55–66.

Braithwaite, R.S.W. (1982) Wroewolfeite in Britain. The Mineralogical Record, 13, 167–74.

Braithwaite, R.S.W. (1983) Minerals of the Derbyshire Orefield. The Mineralogical Record, 14, 15–24.

Braithwaite, R.S.W. (1991) Itinerary XV. The mineralization of Ecton Hill, Staffordshire. In *Geology of the Manchester Area* (R.M.C. Eagar and F.M. Broadhurst), 2nd edn, Geologists' Association Guide, No. 7, The Geologists' Association, London, pp. 96–101.

Braithwaite, R.S.W. (1994) Mineralogy of the Alderley Edge–Mottram St. Andrew area, Cheshire, England. *Journal of the Russell Society*, 5, 91–102.

Braithwaite, R.S.W. and Lamb, R.P.H. (1986) Wulfenite from T■ Coch, Glamorgan (Powys), South Wales. *Mineralogical Magazine,* 50, 180–1.

Braithwaite, R.S.W., Cooper, M.P. and Hart, A.D. (1989) Queitite, a mineral new to Britain, from the Caldbeck Fells. *Mineralogical Magazine*, 55, 508–9.

Braila, A., Sabatini, G. and Troja, F. (1979) Revaluation of the Co/Ni ratio in pyrite as a geochemical tool in ore genesis problems. *Mineralium Deposita*, 14, 353–74.

Brammall, A., Leech, J.G.C. and Bannister, F.A. (1937) The paragenesis of cookeite and hydromuscovite associated with gold at Ogofau, Carmarthenshire. *Mineralogical Magazine*, 24, 507–21.

Brand, N.W., Bottrell, S.H. and Miller, M.F. (1989) Concentrations of reduced sulphur in inclusion fluids associated with black shale-hosted quartz vein gold deposits: implications for mechanisms of transport and deposition of gold, and a possible exploration tool. *Applied Geochemistry*, 4, 483–91.

Branigan, K. and Fowler, P.J. (1976) *The Roman West Country: Classical Culture and Celtic Society,* David and Charles, Newton Abbot, 254 pp.

Brassington, F.C. (2007) A proposed conceptual model for the genesis of the Derbyshire thermal springs. *Quarterly Journal of Engineering Geology and Hydrogeology*, 40, 35–46.

Breithaupt, A. (1841) Holoedrites syntheticus oder Alstonit, Br. Vollstandiges Handbook der mineralogie, Dresden/Leipzig.

Bridge, D. (1992) Wad. In *Beneath the Lakeland Fells: Cumbria's Mining Heritage* (ed. Cumbria Amenity Trust Mining History Society), Red Earth Publications, Ulverston, pp. 43–54.

Bridges, T.F. (1982) An occurrence of nickel minerals in the Hilton Mine, Scordale, Cumbria. *Journal of the Russell Society*, 1, 3–39.

Bridges, T.F. (1983) An occurrence of annabergite in Smallcleugh Mine, Nenthead, Cumbria *Journal of the Russell Society*, 1, 18.

Bridges, T.F. (1987) Serpierite and devilline from the Northern Pennine Orefield. *Proceedings of the Yorkshire Geological Society,* 46, 169.

Bridges, T.F. (1990) Cinnabar from Machen quarry; Machen, south Wales. Journal of the Russell Society, 3, 85.

Bridges, T.F. (2003) Cotunnite from the beach at Clevedon, Avon, England. Journal of the Russell Society, 8, 36–7.

Bridges, T.F. and Green, D.I. (2005) An update of the supergene mineralogy of Hilton Mine, Scordale, Cumbria. *Journal of the Russell Society*, 8, 108–10.

Bridges, T and Smith, M.E. (1983) Phosgenite and Matlockite in Derbyshire (Part 1). *Journal of the Russell Society*, 2, 7–16.

Bridges, T.F. and Young, B. (1998) Supergene minerals of the Northern Pennine Orefield, a review. *Journal of the Russell Society*, 7, 3–14.

Bridges, T.F. and Young, B. (2007) The geology and mineralogy of Pike Law mines, Newbiggin, Teesdale, Co. *Durham. Journal of the Russell Society*, 10, 18–26.

British Geological Survey (1984) *Aberystwyth. England and Wales Sheet 163. Solid. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1985a) *Bangor. England and Wales Sheet 106. Solid. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1985b) *Denbigh. England and Wales Sheet 107. Solid. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1986) *Bala. England and Wales Sheet 136 Solid. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1989a) *Llandudno. England and Wales Sheet 94. Solid and drift. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1989b) *Bridgend. England and Wales Sheets 261 and 262. Solid and drift. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1991) *Rhiw. England and Wales Sheet SN22NW 1:10 000,* British Geological Survey Keyworth.

British Geological Survey (1992) *Regional Geochemistry of the Lake District and Adjacent Areas,* British Geological Survey, Keyworth, 98 pp.

British Geological Survey (1993a) *Rhayader. England and Wales Sheet 179. Solid. 1:50 000,* British Geological Survey Keyworth.

British Geological Survey (1993b) *Wrexham. England and Wales Sheet 121. Solid and drift. 1:50 000,* British Geological Survey, Keyworth.

British Geological Survey (1993c) *Corwen. England and Wales Sheet 120. Solid and drift. 1:50 000,* Ordnance Survey for the British Geological Survey, Southampton.

British Geological Survey (1994) *Llanilar. England and Wales Sheet 178. Solid and drift. 1:50 000,* British Geological Survey, Keyworth.

British Geological Survey (1996a) *Ambleside. England and Wales Sheet 38. Solid. 1:50 000,* British Geological Survey, Keyworth.

British Geological Survey (1996b) *Regional Geochemistry of North-east England,* British Geological Survey, Keyworth, 100 pp.

British Geological Survey (1997) *Snowdon. England and Wales Sheet 119. Solid. 1:50 000,* British Geological Survey, Keyworth.

British Geological Survey (1998) *Ambleside. England and Wales Sheet 38. Solid. 1:50 000,* British Geological Survey, Keyworth.

British Geological Survey (1999) *Flint. England and Wales Sheet 108. Solid. 1:50 000,* British Geological Survey, Keyworth.

British Geological Survey (2006) Lampeter. England and Wales Sheet 195. Bedrock and superficial deposits. 1:50 000, British Geological Survey, Keyworth.

British Geological Survey (2008) *Llandovery. England and Wales Sheet 212. Solid. 1:50 000,* British Geological Survey, Keyworth.

Broadhurst, F.M. and Simpson, I.M. (1967) Sedimentary infillings of fossils and cavities in limestone at Treak Cliff, Derbyshire. *Geological Magazine*, 104, 443–8.

Broadhurst, F.M. and Simpson, I.M. (1973) Bathymetry on a carboniferous reef. Lethaia, 6, 367-81.

Bromley, A.V. (1963) The Geology of the country around Blaenau Ffestiniog. Unpublished PhD thesis, University College Wales, Aberystwyth.

Bromley, A.V. (1964) Allanite in the Tan-y-Grisiau Microgranite, Merionethshire, North Wales. *American Mineralogist,* 49, 1747–52.

Bromley, A.V. (1969) Acid plutonic igneous activity in the Ordovician of North Wales. In *The Pre-Cambrian and Lower Palaeozoic Rocks of Wales* (ed. A. Wood), University of Wales Press, Cardiff, pp. 387–408.

Bromley, A.V. and Holl, J. (1986) Tin mineralisation in south-west England. In *Mineral Processing at a Crossroads* (eds B.A. Wills and R.W. Barley), NATO ASI Series, No. 117, Martinus Nijhoff, Dordrecht, pp. 159–262.

Brooke, H.J. (1824) On barytocalcite. Annals of Philosophy, 8, 114–16.

Brown, G.C., Ixer, R.A., Plant, J.A. and Webb, P.C. (1987) Geochemistry of granites beneath the north Pennines and their role in orefield mineralization. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 96, B65–76.

Brown, M.J. (1983) Mineral investigations at Carrock Fell, Cumbria, Part 2 — Geochemical investigations. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 60.

Brown, M.J. (1993) Exploration for gold in Central Wales. *British Geological Survey, Mineral Reconnaissance Programme Open File Report,* No. 13.

Brown M.J. and Evans, A.D. (1989) Geophysical and geochemical investigations of the manganese deposits of Rhiw, western Llyn, North Wales. *British Geological Survey Technical Report,* WF/89/14 (*BGS Mineral Reconnaissance Programme Report,* No. 102).

Burr, P.S. (1992) Notes on the history of phosgenite and matlockite from Matlock, England. *The Mineralogical Record,* 23, 377–86.

Burr, P.S. (1994) Further notes on the history of phosgenite and matlockite from Matlock, England. *The Mineralogical Record*, 25, 39–41.

Burr, P.S. (1996) Famous mineral localities: The Higher Pitts mine, Mendip Hills, Somerset, England. *The Mineralogical Record*, 27, 245–59.

Burt, R., Waite, P and Burnley, R. (1986) *The Mines of Cardiganshire, The Mineral Statistics of the United Kingdom 1845–1913,* Vol. 7, Department of Economic History, University of Exeter in association with the Northern Mines Research Society, Exeter, 92 pp.

Burt, R., Waite, P. and Burnley, R. (1990) *The Mines of Shropshire and Montgomeryshire with Cheshire and Staffordshire, The Mineral Statistics of the United Kingdom 1845–1913,* Vol. 9, University of Exeter Press in association with the Northern Mines Research Society, Exeter, 104 pp.

Burt, R., Waite, P and Burnley, R. (1992) *The Mines of Flintshire and Denbighshire, The Mineral Statistics of the United Kingdom 1845–1913,* Vol. 10, University of Exeter Press in association with the Northern Mines Research Society, Exeter, 167 pp.

Butcher, N.J.D. and Hedges, J.D. (1987) Exploration and extraction of structurally and lithostratigraphically controlled fluorite deposits in Castleton–Bradwell area of Southern Pennine orefield, England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 96, B149–55.

Butterley, A.D. and Mitchell, G.H. (1946) The driving of two drifts by the Desford Coal Co. Ltd. at Merrylees, Leicestershire. *Transactions of the Institution of Mining Engineers*, 104, 703–13.

Camm, G.S. and Merry, M.G.H. (1991) Bayldonite and its associates from Penberthy Croft, Cornwall. *UK Journal of Mines and Minerals*, 9, 6–15.

Campbell, S. and Bowen, D.Q. (1989) *Quaternary of Wales,* Geological Conservation Review Series, No. 2, Nature Conservancy Council, Peterborough, 237 pp.

Campbell, S.D.G., Reedman, A.J. and Howells, M.F. (1985) Regional variations in cleavage and fold development in North Wales. *Geological journal*, 20, 43–52.

Campbell, S.D.G., Reedman, A.J., Howells, M.F. and Mann, A.C. (1987) The emplacement of geochemically distinct groups of rhyolites during the evolution of the Lower Rhyolitic Tuff Formation caldera (Ordovician), North Wales, U.K. *Geological Magazine*, 124, 501–11.

Campbell Smith, W. (1945) Banalsite crystals from Wales. *Mineralogical Magazine*, 27, 63-4.

Campbell Smith, W. (1948) Ganophyllite from the Benallt Mine, Rhiw, Carnarvonshire. *Mineralogical Magazine,* 28, 343–52.

Campbell Smith, W and Claringbull, G.F. (1947) Pyrophanite from the Benallt mine, Rhiw, Carnarvonshire. *Mineralogical Magazine*, 28, 108–10.

Campbell Smith, W, Bannister, F.A. and Hey, M.H. (1944a) A new barium-feldspar from Wales. Nature, 154, 336–7.

Campbell Smith, W, Bannister, F.A. and Hey, M.H. (1944b) Banalsite, a new barium-felspar from Wales. *Mineralogical Magazine*, 27, 33–46.

Campbell Smith, W, Bannister, F.A. and Hey, M.H. (1946) Pennantite, a new manganese-rich chlorite from Benallt mine, Rhiw, Carnarvon-shire. *Mineralogical Magazine*, 27, 217–20.

Campbell Smith, W, Bannister, F.A. and Hey, M.H. (1949) Cymrite, a new barium mineral from the Benallt manganese mine, Rhiw, Carnarvonshire. *Mineralogical Magazine*, 28, 676–81.

Cann, J.R. and Banks, D.A. (2001) Constraints on the genesis of the mineralization of the Alston Block, northern Pennine orefield, northern England. *Proceedings of the Yorkshire Geological Society*, 53, 187–96.

Carlon, C.J. (1975) The geology and geochemistry of some British barite deposits. Unpublished PhD thesis, University of Manchester, 335 pp.

Carlon, C.J. (1979) The Alderley Edge Mines, John Sherratt and Son Ltd, Altrincham, 144 pp.

Cadon, C.J. (1981) The Gallantry Bank copper mine, Bickerton, Cheshire: with a review of mining in the Triassic rocks of the Shropshire-Cheshire Basin. *British Mining*, 16, 50 pp.

Came, J. (1822) On the Mineral Production and the Geology of the Parish of St Just. *Transactions of the Royal Geological Society of Cornwall*, 2, 290–358.

Carpenter, A.B., Trout, M.L. and Pickett, E.E. (1974) Preliminary report on the origin and chemical evolution of lead and zinc-rich oil field brines in central Mississippi. *Economic Geology*, 69, 1191–206.

Carruthers, R.G. and Strahan, A. (1923) *Lead and Zinc Ores of Durham, Yorkshire and Derbyshire, with Notes on the Isle of Man,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 26, HMSO, London, 114 pp.

Carruthers, R.G., Eastwood, T., Wilson, G.V., Pocock, R.W. and Wray, D.A. (1915) *Barytes and Witherite,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 2, HMSO, London, 93 pp.

Carruthers, R.G., Eastwood, T., Wilson, G.V., Pocock, R.W. and Wray, D.A. (1916) *Barytes and Witherite,* 2nd edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 2, HMSO, London, 93 pp.

Cathles, L.M. and Smith, A.T. (1983) Thermal constraints on the formation of Mississippi Valley-Type Lead Zinc Deposits and their implications for episodic basin dewatering and deposit genesis. *Economic Geology*, 78, 983–1002.

Cave, R. and Haim, B.A. (1986) *Geology of the Country Between Aberystwyth and Machynlleth,* Memoir of the British Geological Survey, Sheet 163 (England and Wales), HMSO, London.

Chadwick, R.A., Evans, D.J., Rowley, 'W.J., Smith, N.J.P., Walker, A.S.D., Birch, B. and Bulat, J. (1999) Structure and evolution of the basin. In *The Cheshire Basin: Basin Evolution, Fluid Movement and Mineral Resources in a Permo-Triassic Rift Setting* (eds J.A. Plant, D.G. Jones and H.W. Haslam), British Geological Survey, Keyworth, pp. 41–89.

Chandler, C. and Isaac, K.P. (1982) The geological setting, geochemistry and significance of Lower Carboniferous basic volcanic rocks in Central South-west England. *Proceedings of the Ussher Society,* 5, 279–88.

Charoy, B. (1979) Définition et importance des phenomenes deuteriques et des fluides associés dans les granites. Conséquences métallogeniques. *Sciences de la Terre Mémoire*, 37, 364.

Charoy, B. (1982) Tourmalinization in Cornwall, England. In *Metallization Associated with Acid Magmatism* (ed. A.M. Evans), Wiley, Chichester, pp. 63–70.

Charter, W.J. (1995) *Preliminary reassessment structures and mineralisation at Parys Mountain, Anglesey, UK, with regard to further exploration.* Internal report for Anglesey Mining (by Celtest Geological Services).

Chaudhry, M.N. and Howie, R.A. (1970a) Topaz from the Meldon aplite, Devonshire. *Mineralogical Magazine,* 37, 717–20.

Chaudhry, M.N. and Howie, R.A. (1970b) Axinites from the contact skarns of the Meldon Devonshire, England. *Mineralogical Magazine*, 37, 45–8.

Chaudhry, M.N. and Howie, R.A. (1973). Lithium-aluminium micas from the Meldon aplite, Devonshire, England. *Mineralogical Magazine*, 39, 289–96.

Chaudhry, M.N. and Howie, R.A. (1976) Lithium tourmalines from the Meldon aplite, Devonshire, England. *Mineralogical Magazine*, 40, 747–51.

Chaudhry, M.N. and Mahmood, A. (1979) Types of distribution of the minerals of the Meldon Aplite, Devonshire. *Mineralogical Magazine*, 43, 307–9.

Chen, Y., Clark, A.H., Farrar, E., Wasteneys, H.A.H.P., Hodgson, M.J. and Bromley, A.V. (1993) Diachronous and independent histories of plutonism and mineralization in the Cornubian Batholith, south-west England. *Journal of the Geological Society of London*, 150, 1183–91.

Chenevix, R. (1801) An analysis of a new variety of lead ore. W *Nicolson's Journal of Natural Philosophy, Chemistry and the Arts,* 4, 219.

Chesley, J.T., Halliday, A.N., Snee, L.W, Mezger, K., Shepherd, T.J. and Scrivener, R.C. (1993) Thermochronology of the Cornubian Batholith: implications for pluton emplacement and protracted episodic hydrothermal mineralization. *Geochimica et Cosmochimica Acta*, 57, 1817–35.

Chisholm, J.I., Charsley, T.J. and Aitkenhead, N. (1988) *Geology of the Country Around Ashbourne and Cheadle,* Memoir of the British Geological Survey, Sheet 124 (England and Wales), HMSO, London, 160 pp.

Church, A.H. (1865) Chemical researches on some new and rare Cornish mineralsjourna/ of the Chemical Society, 18, 259–68.

Clark, A.M. and Criddle, A.J. (1982) Palladium minerals from Hope's Nose, Torquay, Devon. *Mineralogical Magazine*, 46, 371–7.

Clark, D.B., McKenzie, C.B., Muecke, G.K. and Richardson, S.W. (1976) Magmatic and alusite from the South Mountain Batholith, Nova Scotia. *Contributions to Mineralogy and Petrology*, 56, 279–87.

Clark, L. (1963) The geology and petrology of the Ennerdale granophyre, its metamorphic aureole and associated mineralization. Unpublished PhD thesis, University of Leeds.

Clayton, R.E., Scrivener, R.C. and Stanley, C.J. (1990) Mineralogical and preliminary fluid inclusion studies of lead-antimony mineralisation in north Cornwall. *Proceedings of the Ussher Society*, 7(3), 258–62.

Cleevely, R.J. (2007) Discovery of the Barnstaple Zeolite: a minor geological controversy in the early 1800s. *Devonshire Association Report and Transactions*, 139, 133–67

Collins, J.H. (1871) A Handbook to the Mineralogy of Cornwall and Devon, Longmans, London, 108 pp.

Collins, J.H. (1897) Cornish Mines and Cornish Miners. Report of the Royal Cornwall Polytechnic Society, 65, 64–96.

Collins, J.H. (1912) Observations on the West of England Mining Region, Transactions of the Royal Geological Society of Cornwall, No. 14, William Brendon and Son, Plymouth, 683 pp.

Collins, J.H. and Coon, J.M. (1914) On the topaz rock of St Mewan Beacon, Cornwall. *Transactions of the Royal Geological Society of Cornwall*, 15, 43–54.

Colman, T.B. (1990) Sediment-hosted base-metal vein mineralization at Drws-y-Coed and Cwm Pennant, Snowdonia, North Wales. *British Mining*, 41, 41–60.

Colman, T.B. and Appleby, A.K. (1991) Volcanogenic quartz-magnetite-hematite veins, Snowdon, North Wales. *Mineralogical Magazine*, 55, 257–62.

Cook, C.A., Holdsworth, R.E., Styles, M.T. and Pearce, J.A. (2000) Pre-emplacement structural history recorded by mantle peridotites: an example from the Lizard Complex, SW England. *Journal of the Geological Society of London*, 157, 1049–64.

Cook, C.A., Holdsworth, R.E. and Styles, M.T. (2002) The emplacement of peridotites and associated oceanic rocks from the Lizard Complex, southwest England. *Geological Magazine*, 139, 27–45.

Coon, J.M. (1933) Pseudomorphs of cassiterite etc after feldspar at Wheal Coates, St Agnes, Cornwall. *Transactions of the Royal Geological Society of Cornwall*, 16, 297-p0.

Cooper, D.C., Lee, M.K., Fortey, N.J., Cooper, A.H., Rundle, C.C., Webb, B.C. and Allen, P.M. (1988) The Crummock Water aureole: a zone of metasomatism and source of ore metals in the English Lake District. *Journal of the Geological Society of London*, 145, 523–40.

Cooper, D.C., Cameron, D.G., Young, B., Cornwell, J.D. and Bland, D.J. (1991) Mineral exploration in the Cockermouth area, Cumbria. Part 1: regional surveys. *British Geological Survey Technical Report, WF/91/4 (BGS Mineral Reconnaissance Programme Report,* No. 118).

Cooper, M.A., Hawthorne, F.C. and Moffatt, E. (2009) Steverustite, $Pb_{5}^{2+}(OH)_{5}[CU^{+}(S^{6+}O_{3}S^{2-})_{3}](H_{2}O)_{2}$, a new thiosulphate mineral from the Frongoch Mine Dump, Devils Bridge, Ceredigion, Wales: description and crystal structure. *Mineralogical Magazine*, 73, 235–50.

Cooper, M.P. and Stanley, C.J. (1990) *Minerals of the English Lake District: Caldbeck Fells,* Natural History Museum Publications, London, 160 pp.

Cooper, M.P., Green, D.I. and Braithwaite, R.S.W. (1988) The occurrence of mattheddleite in the Caldbeck Fells, Cumbria: a preliminary note. *UK Journal of Mines and Minerals*, 5, 21.

Cope, J.C.W., Ingham, J.K. and Rawson, P.F. (eds) (1992) *Atlas of Palaeogeography and Lithofacies, Geological Society of London Memoir,* No. 13, Geological Society of London, Bath, 153 pp.

Cornwell, J.D. (1979) Geophysical investigations of some mineral deposits in North Wales. *Applied Geophysics Unit Report, Institute of Geological Sciences,* No. 146, 127 pp.

Cornwell, J.D. and Wadge, A.J. (1980) Geophysical investigations in the Closehouse–Lunedale area. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 31, 18 pp.

Cornwell, J.D., Patrick, D.J. and Tappin, R.J. (1980) Geophysical evidence for a concealed extension of the Tanygrisiau microgranite and its possible relation to mineralisation. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 38, 13 pp.

Cotterell, T.F. (2006a) Caryopilite and pyroxmanganite from Nant Mine, Nant-Y-Gadewn, Llanfaelrhys, Pen Llyn, Gwynedd, Wales. *UK Journal of Mines and Minerals*, 27, 51–3.

Cotterell, T.F. (2006b) The first British occurrence of cesàrolite at Eaglebrook Mine, Ceulanymaesmawr, Ceredigion, Wales. *UK Journal of Mines and Minerals*, 27, 36–8.

Cotterell, T.F. (2007) Cesarolite from Frongoch Mine, Devil's Bridge, Ceredigion, Wales. *Journal of the Russell Society,* 10, 55–6.

Cotterell, T.F. (2008). The First British Occurrence of feitknechtite at Benallt Manganese Mine, Rhiw, Pen Llyn, Gwynedd, Wales. *UK Journal of Mines and Minerals*, 29, 47–8.

Cotterell, T.F. and Dean, A.C. (2007) The first British occurrence of paralstonite at Dolyhir Quarry, Old Radnor, Powys, Wales. *UK Journal of Mines and Minerals*, 28, 31–5.

Cotterell, T.F. and Todhunter, P.K. (2007) Corkite and hinsdalite from Frongoch Mine, Devil's Bridge, Ceredigion, Wales, including evidence to suggest that orpheite is a variety of hinsdalite. *Journal of the Russell Society*, 10, 57–64.

Cotterell, T.F., Mason, J.S. and Green, D.I. (2003) Brianyoungite from Elgar mine and Frongoch mine, Ceredigion, Wales. *Journal of the Russell Society*, 8, 33–4.

Couper, A.G. and Barstow, R.W. (1977) Rediscovery of stokesite crystals in Cornwall, England. *The Mineralogical Record*, 8, 294–7

Crabtree, P. and Foster, R. (1963) Sir Francis Mine. Cave Science, 5, 1-24.

Crew, P. and Musson, C. (1996) *Snowdonia From the Air — Patterns in the Landscape,* Snowdonia National Park Authority, Penrhyndeudraeth, 56 pp.

Criddle, A.J. and Symes, R.F. (1977) Mineralization at Ty Coch, Glamorgan (Mid Glamorgan), Wales: the second occurrence of pyrobelonite. *Mineralogical Magazine*, 41, 85–90.

Critchley, M.F. (1979) A Geological Outline of the Ecton Copper mines, Staffordshire. *Bulletin of the Peak District Mines Historical Society*, 7, 177–91.

Critchley, M.F. (1984) The history and workings of the Nenthead Mines, Cumbria. *Bulletin of the Peak District Mines Historical Society*, *9*(1) 1–50.

Critchley, M.F. (1998) The history and workings of the Nenthead Mines, Cumbria. *Bulletin of the Peak District Mines Historical Society*, 9, 1–40 (Revised 2nd edn).

Crowley, S.E, Bottrell, S.H., McCarthy, M.D.B., Ward, J. and Young, B. (1997) δ^{34} S of Lower Carboniferous anhydrite, Cumbria and its implications for barite mineralization in the northern Pennines. *Journal of the Geological Society of London,* 154, 597–600.

Cundy, E.K., Windle, W and Warren, I.H. (1960) The occurrence of zinnwaldite in Cornwall. *Clay Minerals Bulletin*, 4, 151–6.

Curtis, C.D., Coleman, M.L. and Love, L.G. (1986) Pore water evolution during sediment burial from isotopic and mineral chemistry of calcite, dolomite and siderite concretions. *Geochimica et Cosmochimica Acta*, 50, 2321–34.

Dagger, G.W. (1977) Controls of copper mineralization at Coniston, English Lake District. *Geological Magazine*, 114, 195–202.

Dakyns, J.R., Tiddeman, R.H., Russell, R., Clough, C.T. and Strahan, A. (1891) *The Geology of the Country Around Mallerstang with Parts of Wensleydale, Swaledale and Arkendale,* Memoir of the Geological Survey of Great Britain, Sheet 97NW (England and Wales), HMSO, London, 213 pp.

Dana, J.D. (1868) A System of Mineralogy, 5th edn, John Wiley, New York.

Dangerfield, J. and Hawkes, J.R. (1981) The Variscan granites of south-west England: additional information. *Proceedings of the Ussher Society*, 5, *1*16–20.

Darbyshire, D.P.F. and Shepherd, T.J. (1985) Chronology of granite magmatism and associated mineralization, SW England. *Journal of the Geological Society of London*, 142, 1159–77.

Davey, J.C. (1925) Geology of the New Tolgus Shaft. *Transactions of the Royal Geological Society of Cornwall*, 15, 439–42.

Davey, S. (1832) Notice of pseudmorphous crystals of oxide of tin found in Huel Coates mine, in St Agnes, in the year 1828. *Transactions of the Royal Geological Society of Cornwall*, 4, *4*84–5.

Davidson, C.F. (1966) Some genetic relationships between ore deposits and evaporites. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 84, B215–25.

Davidson, W.F. and Thomson, N. (1948) Some notes on the minerals of Cumberland and Westmorland. *The North Western Naturalist*, 23, 136–54.

Davies, B.E., Ginnever, R.C. and Lear, J.M. (1981) Cadmium and lead contaminated soils in some British metal mining areas. *Pace Substances and Environmental Health*, 15, 323–32.

Davies, J.R., Fletcher, C.J.N., Waters, R.A., Wilson, D., Woodhall, D.G. and Zalasiewicz, J.A. (1997) *Geology of the Country Around Llanilar and Rhayader*, Memoir of the British Geological Survey, Sheets 178 and 179 (England and Wales), The Stationery Office for the British Geological Survey, London, 267 pp.

Davies, W.J.K. (1968) The Ravenglass and Eskdale Railway, David and Charles, Newton Abbot, 204 pp.

Davis, R.J. and Hey, M.H. (1964) Arthurite, a new copper-iron arsenate from Cornwall. *Mineralogical Magazine*, 33, 937–41.

Davis, R.J., Hey, M.H. and Kingsbury, A.W.G. (1964) Xanthiosite and aerugite. *Mineralogical Magazine*, 35, 72-83.

Davison, E.H. (1926a) Handbook of Cornish Geology, Royal Geological Society of Cornwall, Penzance, 106 pp.

Davison, E.H. (1926b) A study of the Cornish granite, its variation and its relation with the occurrence of tin and other metallic ores. *Transactions of the Royal Geological Society of Cornwall*, 15, 578–92.

Davy, H. (1805) An Account of Some Analytical Experiments on a Mineral Production from Devonshire. *Philosophical Transactions of the Royal Society of London*, 95, 155–62.

Daysh, G.H.J. and Watson, E.M. (1951) *Cumberland with Special Reference to the West Cumberland Development Area. A Survey of Facilities,* Cumberland Development Council Ltd and the West Cumberland Industrial Development Co. Ltd, Whitehaven, 182 pp.

Dean, A. (1845) Notice on the discovery of gold ores in Merionethshire, North Wales. *Report of the British Association for the Advancement of Science,* for 1844, 56.

Deans, T (1950) The kupferschiefer and the associated lead-zinc mineralisation in Silesia, Germany and England. In *The Geology, Paragenesis and Reserves of the Ores of Lead and Zinc* (ed. K.C. Dunham), *Symposium and Proceedings of Section F, 18th International Geological Congress, London*, 1948, International Geological Congress, London, pp. 340–51.

Deans, T. (1951) Notes on the copper deposits of Middleton Tyas and Richmond. Abstract in Mineralogical Society Notice, No. 74, for meeting of June 7th.

Dearman, W.R. (1959) The Structure of the Culm Measures at Meldon, near Okehampton, north Devon. *Quarterly Journal of the Geological Society of London*, 115, 65–106.

Dearman, W.R. (1963) Wrench faulting in Cornwall and South Devon. *Proceedings of the Geologists' Association*, 74, 265–87.

Dearman, W.R. (1966) Field meeting in Northwest Dartmoor. Proceedings of the Geologists' Association, 77, 229–31.

Dearman, W.R. and Butcher, N.E. (1959) The geology of the Devonian and Carboniferous rocks of the North-West border of the Dartmoor Granite, Devonshire. *Proceedings of the Geologists' Association*, 70, 51–92.

Dearman, W.R. and Claringbull, G.F. (1960) Bavenite from the Meldon aplite quarries, Okehampton, Devon. *Mineralogical Magazine*, 32, 577–8.

Dearman, W.R. and El Sharkawi, M.A.H. (1965) The shape of the mineral deposits in the Lower Culm Measures of North-West Dartmoor. *Transactions of the Royal Geological Society of Cornwall*, 19, 286–96.

De la Beche, H.T. (1839) *Report on the Geology of Cornwall, Devon and West Somerset,* Memoir of the Geological Survey of Great Britain, HMSO, London, 624 pp.

Dewey, H. (1920) *Arsenic and Antimony Ores,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 15, HMSO, London, 59 pp.

Dewey H. (1921) *Lead, Silver-Lead and Zinc Ores of Cornwall, Devon and Somerset, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 21, HMSO, London, 72 pp.*

Dewey, H. and Bromehead, C.E.N. (1915) *Tungsten and Manganese Ores,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 1, HMSO, London, 59 pp.

Dewey, H. and Dines, H.G. (1923) *Tungsten and Manganese Ores,* 3rd edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 1, HMSO, London, 83 pp.

Dewey H. and Eastwood, T (1925) *Copper Ores of the Midlands, Wales, the Lake District and the Isle of Man,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 30, HMSO, London, 87 pp.

Dewey, H. and Smith, B. (1922) *Lead and Zinc Ores in the Pre-Carboniferous Rocks of West Shropshire and North Wales. Part II, North Wales,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 23, HMSO, London, 93 pp.

Dewey, J.F. (1969) Evolution of the Appalachian/Caledonian orogeny. Nature, 222, 124-9.

Dickinson, J.M. (1964a) Some notes on the lead mines of Greenhow Hill. *Transactions of the Northern Cavern and Mine Research Society*, 1, 34–47.

Dickinson, J.M. (1964b) The Appletreewick Lead Mining Company 1870–2, parts 1, 2 and 3. *Memoir of the Northern Cavern and Mine Research Society*, 1(1), 1–7; 1(2), 1–6; 1(3), 1–4.

Dickinson, J.M. (1967) The Burhill Mines. *Memoir of the Northern Cavern and Mine Research Society*, 1(6), 1–9.

Dickinson, J.M. (1969) The Greenhow lead mining field. *Memoir of the Northern Cavern and Mine Research Society,* 1(8), 25–31.

Dickinson, J.M. (1970) The Greenhow Lead Mining Field (a Historical Survey), Northern Cavern and Mine Research Society Individual Survey Series, No. 4, Northern Cavern and Mine Research Society; Keighley, 50 pp.

Din, V.K., Symes, R.F. and Williams, C.T. (1986) Lithogeochemical study of some Mendip country rocks. *Bulletin of the British Museum (Natural History): Geology,* 40(5), 247–58.

Dines, H.G. (1934) The lateral extent of the ore-shoots in the primary depth zones of Cornwall. *Transactions of the Royal Geological Society of Cornwall,* 16, 279–96.

Dines, H.G. (1956) *The Metalliferous Mining Region of South-west England,* Memoir of the Geological Survey of Great Britain, HMSO for the Institute of Geological Sciences, London, 2 volumes, 795 pp.

Dines, H.G. (1958) The west Shropshire mining region. Bulletin of the Geological Survey, 14, 1–43.

Dines, H.G. (1959) The West Shropshire Mining Field. In *The Future of Non-Ferrous Mining in Great Britain and Ireland: a Symposium*, Institution of Mining and Metallurgy, London, pp. 295–307.

Donald, M.B. (1994) Elizabethan Copper, Red Earth Publications, Ulverston, 405 pp.

Donaldson, C.H. (1978) Petrology of the Uppermost Upper Mantle Deduced from Spinel-Lherzolite and Harzburgite Nodules at Calton Hill, Derbyshire. *Contributions to Mineralogy and Petrology*, 65, 363–77.

Dossett, I., Green, D.L. and Cotterell, T.F. (2007) Powellite from Benallt Mine, Lleyn Peninsula, Gwynedd: a first Welsh Occurrence. *Journal of the Russell Society*, 10, 54–5.

Down, C.G. (1980) *The Manganese Mines of North Wales, British Mining,* No. 14, Northern Mines Research Society, Sheffield, 71 pp.

Downing, R.A. (1967) Geochemistry of groundwaters in the Carboniferous Limestone of Derbyshire and the East Midlands. *Bulletin of the Geological Survey of Great Britain*, 27, 289–307.

Doyle, E. (1984) The coticule rocks of the Lower Palaeozoic Maulin Formation in Southeast Ireland. Unpublished PhD thesis, National University of Ireland.

Drysdale, D.J. (1985) Petalite and spodumene in the Meldon Aplite, Devon. Mineralogical Magazine, 49, 758-9.

DuBois, R.L. (1962) Magnetic characteristics of a massive hematite body. *Journal of Geophysical Research*, 67, 2887–93.

Duller, P.R., Gallagher, M.J., Hall, A.J. and Russell, M.J. (1997) Glendinning deposit — an example of turbidite-hosted arsenic-antimony-gold mineralization in the Southern Uplands, Scotland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 106, B119–34.

Dunham, K.C. (1931) Mineral deposits of the north Pennines. Proceedings of the Geologists' Association, 42, 274-81.

Dunham, K.C. (1934) The genesis of the north Pennine ore deposits. *Quarterly Journal of the Geological Society of London*, 90, 689–720.

Dunham, K.C. (1937) The paragenesis and color of fluorite in the English Pennines. American Mineralogist, 22, 468–79.

Dunham, K.C. (1948) *Geology of the Northern Pennine Orefield. Volume 1: Tyne to Stainmore,* Memoir of the Geological Survey of Great Britain (England and Wales), HMSO, London, 299 pp.

Dunham, K.C. (1952a) Age-relations of the epigenetic mineral deposits of Britain. *Transactions of the Geological Society of Glasgow*, 21, 395–429.

Dunham, K.C. (1952b) *Fluorspar,* 4th edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 4, 143 pp.

Dunham, K.C. (1967) Veins flats and pipes in the Carboniferous of the English Pennines. In *Genesis of Stratiform Lead-Zinc-Barite-Fluorite Deposits* (ed. J.S. Brown), *Economic Geology Monograph*, No. 3, Economic Geology Publishing Co., Urbana, pp. 201–7.

Dunham, K.C. (1983). Ore genesis in the English Pennines: a fluoritic subtype. In *International Conference on Mississippi Valley Type Lead-Zinc Deposits: Proceedings Volume* (eds G. Kisvarsanyi *et al.),* University of Missouri-Rolla, Rolla, pp. 86–112.

Dunham, K.C. (1984) Genesis of the Cumbrian hematite deposits. *Proceedings of the Yorkshire Geological Society*, 45, 130.

Dunham, K.C. (1990) *Geology of the Northern Pennine Orefield. Volume 1: Tyne to Stainmore,* 2nd edn, Memoir of the British Geological Survey, Sheets 19 and 25, and parts of 13, 24, 26, 31, 32 (England and Wales), HMSO, London, 299 pp.

Dunham, K.C. and Wilson, A.A. (1985) *Geology of the Northern Pennine Orefield. Volume 2: Stainmore to Craven,* Memoir of the British Geological Survey, Sheets 40, 41 and 50, and parts of 31, 32, 51, 60 and 61 (England and Wales), HMSO, London, 247 pp.

Dunham, K., Beer, K.E., Ellis, R.A., Gallagher, M.J., Nutt, M.J.C. and Webb, B.C. (1978) United Kingdom. In *Mineral Deposits of Europe. Volume 1: Northwest Europe* (eds S.H.U. Bowie, A. Kvalheim and H.W. Haslam), Institution of Mining and Metallurgy and Mineralogical Society London, pp. 263–317.

Dunham, K.C., Young, B., Johnson, G.A.L., Colman, T.B. and Fossett, R. (2001) Rich silver-bearing ores in the North Pennines? *Proceedings of the Yorkshire Geological Society*, 53, 207–12.

Dunkley, P.N. (1978) The geology of the South Western part of the Man Range, Merionethshire, with particular reference to igneous history. Unpublished PhD thesis, University of Wales, Aberystwyth.

Durrance, E.M. and Laming, D.J.C. (1982) The Geology of Devon, University of Exeter Press, Exeter, 346 pp.

Durrance, E.M. and Laming, D.J.C. (1997) The Geology of Devon, reprint, University of Exeter Press, Exeter, 346 pp.

Dwerryhouse, A.R. (1909) On some intrusive rocks in the neighbourhood of Eskdale (Cumberland). *Quarterly Journal of the Geological Society of London*, 65, 55–80.

Dyer, A., Wilson, O.M. and Young, B. (2001) Natrolite from Calton Hill, Derbyshire, England. *Journal of the Russell Society*, 7, 89.

Eadington, P.J. and Nashar, B. (1978) Evidence of the magmatic origin of quartz-topaz rocks from the New England Batholith, Australia. *Contributions to Mineralogy and Petrology*, 67, 433–8.

Eagar, R.M.C. and Broadhurst, F.M. (1991) Itinerary VIII, Alderley Edge 1. In *Geology of the Manchester Area* (R.M.C. Eagar and F.M. Broadhurst), 2nd edn, Geologists' Association Guide, No. 7, The Geologists' Association, London, pp. 59–74.

Earp, J.R. (1958) Mineral veins of the Minera-Maeshafn District of North Wales. *Bulletin of the Geological Survey of Great Britain*, 14, 44–69.

Eastwood, T (1921) *The Lead and Zinc Ores of the Lake District,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 22, HMSO, London, 56 pp.

Eastwood, T. (1959) The Lake District Mining Field. In *The Future of Non-Ferrous Mining in Great Britain and Ireland: a Symposium,* Institution of Mining and Metallurgy; London, pp. 149–74.

Eastwood, T., Cantrill, T.C. and Whitehead, T.H. (1923) *The Geology of the Country Around Coventry, Including an Account of the Carboniferous Rocks of the Warwickshire Coalfield,* Memoir of the Geological Survey of Great Britain, Sheet 169 (England and Wales), HMSO, London, 150 pp.

Eastwood, T., Dixon, E.E.L., Hollingworth, S.E. and Smith, B. (1931) *The Geology of the Whitehaven and Workington District,* Memoir of the Geological Survey of Great Britain, Sheet 28 (England and Wales), HMSO, London, 304 pp.

Eastwood, T., Hollingworth, S.E., Rose, W.C.C. and Trotter, F.M. (1968) *Geology of the Country Around Cockermouth and Caldbeck,* Memoir of the Geological Survey of Great Britain, Sheet 23 (England and Wales), HMSO, London, 298 pp.

Edmonds, E.A., McKeown, M.C. and Williams, M. (1975) *British Regional Geology: South-west England,* HMSO, London, 138 pp.

El Sharkawi, M.A.H. and Dearman, W.R. (1966) Tin-bearing slams from the northwest border of the Dartmoor Granite, Devonshire, England. *Economic Geology*, 61, 362–9.

El Shazly, E.M., Webb, J.S. and Williams, D. (1957) Trace elements in sphalerite, galena and associated minerals from the British Isles. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 66, B241–71.

Elles, G.L. and Wood, E.M.R. (1895) Supplementary notes on the Drygill Shales. Geological Magazine, 2, 246-9.

Ellis, N.V. (ed.), Bowen, D.Q., Campbell, S., Knill, J.L., McKirdy, A.P., Prosser, C.D., Vincent, M.A. and Wilson, . R.C.L. (1996) An *Introduction to the Geological Conservation Review,* Geological Conservation Review Series, No. 1, Joint Nature Conservation Committee, Peterborough, 131 pp.

Ellis, R. (1851) Official Descriptive and Illustrated Catalogue of the Great Exhibition of the Works of Industry of all Nations, Spicer Bros, London, 3 volumes.

Elton, N.J. and Hooper, J.J. (1995) Supergene U-Pb-Cu mineralisation at the Warren, St Just, Cornwall. *Journal of the Russell Society*, 6, 17–26.

Elton, N.J. and Hooper, J.J. (1998) The Russell Society Annual General Meeting, Truro, Cornwall, 3–5 April 1998, Programme and Field Notes.

Elton, N.J., Hooper, J.J. and Holyer, V.A.D. (1997) An occurrence of stevensite and kero-lite in the Devonian Crousa Gabbro at Dean Quarry, The Lizard, Cornwall. *Clay Minerals*, 32, 241–52.

Elton, N.J., Hooper, J.J. and Ryback, G. (1994) Compreignacite, a second occurrence from St Just, Cornwall. *Mineralogical Magazine*, 58, 339–41.

Embrey, P.G. (1978) Fourth supplementary list of British Minerals. *Mineralogical Magazine*, 42 169–77.

Embrey, P.G. and Symes, R.F. (1987) *Minerals of Cornwall and Devon*, British Museum (Natural History), London, 154 pp.

Evans, A.M. (1986) Comments on Sir Kingsley Dunham's paper: age and origin of Cumbrian hematite. *Proceedings of the Yorkshire Geological Society*, 45, 405–6.

Evans, A.M. and El Nikhely, A. (1982) Some palaeomagnetic dates from the west Cumbrian hematite deposits, England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 91, B41–3.

Evans, A.M. and King, R.J. (1962) Palygorskite in Leicestershire. Nature, 194, 860.

Evans, J.A. (1991) Resetting of Rb-Sr whole-rock ages during Acadian low-wade metamorphism in North Wales. *Journal of the Geological Society of London*, 148, 703–10.

Ewart, A. (1962) Hydrothermal alteration in the Carrock Fell area, Cumberland, England. Geological Magazine, 99, 1–8.

Ewbank, G. (1992) The origin of hydrocarbons associated with mineralisation in the South Pennine Orefield. Unpublished PhD. thesis, University of Newcastle-upon-Tyne.

Ewbank, G., Abbott, G.D. and Manning, D.A.C. (1993) An organic geochemical study of bitumens and their potential source rocks from the South Pennine Orefield, Central England. *Organic Geochemistry*, 20, 579–98.

Ewbank, G., Manning, D.A.C. and Abbott, G.D. (1995) The relationship between bitumens and mineralization in the South Pennine Orefield, central England. *Journal of the Geological Society of London*, 152, 751–65.

Exley, C.S. and Stone, M. (1964) The granitic rocks of south-west England. In *Present Views on some Aspects of the Geology of Cornwall and Devon* (eds K.F.G. Hosking and G.H Shrimpton), Royal Geological Society of Cornwall, Penzance, pp. 131–84.

Exley, C.S. and Stone, M. (1982) Hercynian intrusive rocks. In *Igneous Rocks of the British Isles* (ed. D.S. Sutherland), Wiley, Chichester, pp. 287–320.

Exley, C.S., Stone, M. and Floyd, P.A. (1983) Composition and petrogenesis of the Cornubian granite batholith and post-orogenic volcanic rocks in southwest England. In *The Variscan Fold Belt in the British Isles* (ed. P.L. Hancock), Adam Hilger, Bristol, pp. 153–85.

Fairbairn, R.A. (1978) Lateral persistence of beds within the Great Limestone (Namurian, E₁) of Weardale. *Proceedings* of the Yorkshire Geological Society, 41, 533–44.

Fairbairn, R.A. (1993) *The Mines of Alston Moor, British Mining — Monograph of the Northern Mine Research Society,* No. 47, Northern Mine Research Society, Keighley, 191 pp.

Faithfull, J.W. and Hubbard, N. (1988) Coffinite from Gipsy Lane Brick Pit, Leicester. *Journal of the Russell Society*, 12, 25–8.

Fearnsides, W.G. (1910) Excursion to North Wales. Proceedings of the Geologists' Association, 21, 368-90.

Finlayson, A.M. (1910a) The ore-bearing pegmatites of Carrock Fell and the genetic significance of tungsten ores. *Geological Magazine*, 7, 19–28.

Finlayson, A.M. (1910b) The metallogeny of the British Isles. *Quarterly Journal of the Geological Society of London*, 66, 281–98.

Firman, R.J. (1953) Metamorphism and metasomatism around the Shap and Eskdale Granites. Unpublished PhD thesis, University of Durham.

Firman, R.J. (1978a) Epigenetic mineralization. In *The Geology of the Lake District* (ed. F. Moseley), *Yorkshire Geological Society Occasional Publication*, No. 3, Yorkshire Geological Society, Leeds, pp. 226–41.

Firman, R.J. (1978b) Intrusions. In *The Geology of the Lake District* (ed. F. Moseley), *Yorkshire Geological Society Occasional Publication*, No. 3, Yorkshire Geological Society, Leeds, pp. 146–63.

Firman, R.J. and Lee, M.K. (1986) The age and structure of the concealed Lake District Batholith and its probable influence on subsequent sedimentation, tectonics and mineralisation. In *Geology in the Real World* (eds R.W. Nesbitt and

I. Nichol), Institution of Mining and Metallurgy, London, pp. 117–27.

Firth, J.N.M. (1971) The Mineralogy of the South Wales Coalfield. Unpublished PhD thesis, University of Bristol.

Fitch, F.J., Miller, J.A. and Meneisy, M.Y. (1963) Geochronological investigations on rocks from North Wales. *Nature,* 199, 449–51.

Fitch, F.J., Miller, J.A., Evans, A.L., Grasty, R.L. and Meneisy, M.Y. (1969) Isotopic age determinations on rocks from Wales and the Welsh Borders. In *The Pre-Cambrian and Lower Palaeozoic Rocks of Wales* (ed. A. Wood), University of Wales Press, Cardiff, pp. 23–45.

Fitches, W.R. (1987) Aspects of veining in the Lower Palaeozoic rocks of the Welsh Basin. In *Deformation of Sediments and Sedimentary Rocks* (eds M.E. Jones and M.R. Preston), *Geological Society of London Special Publication,* No. 29, Blackwell Scientific Publications for the Geological Society, Oxford, pp. 297–317.

Flemming, P (1992) Copper. In *Beneath the Lakeland Fells: Cumbria's Mining Heritage* (ed. Cumbria Amenity Trust Mining History Society), Red Earth Publications, Ulverston, pp. 11–42.

Fletcher, C.J.N. (1988) Tidal erosion, solution cavities and exhalative mineralization associated with the Jurassic unconformity at Ogmore, South Glamorgan. *Proceedings of the Geologists' Association*, 99, 1–14.

Fletcher, C.J.N., Swainbank, I.G. and Colman, T.B. (1993) Metallogenic evolution in Wales: constraints from lead isotope modelling. *Journal of the Geological Society of London,* 150, 77–82.

Flett, J.S. and Hill, J.B. (1912) *The Geology of the Lizard and Meneage,* Memoir of the Geological Survey of Great Britain, Sheet 359 (England and Wales), HMSO, London, 208 pp.

Floyd, P.A. (1983) Composition and petrogenesis of the Lizard complex and pre-orogenic basaltic rocks in southwest England. In *The Variscan Fold Belt in the British Isles* (ed. P.L. Hancock), Adam Hilger, Bristol, pp. 130–52.

Floyd, P.A., Exley, C.S. and Styles, M.T. (1993) *Igneous Rocks of South-west England,* Geological Conservation Review Series, No. 5, Chapman and Hall, London, 256 pp.

Forbes, D. (1867) Researches on British Mineralogy. *The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science*, 34, 329–54.

Ford, T.D. (1955) Blue John Fluorspar. Proceedings of the Yorkshire Geological Society, 30, 35-60.

Ford, T.D. (1963) The occurrence of halloysite in Derbyshire. Clay Minerals, 5, 302-7.

Ford, T.D. (1967a) The mineral deposits of Derbyshire. In *Geological Field Excursions in the Sheffield Region and Peak District National Park* (eds R. Neves and C. Dourie), University of Sheffield, Sheffield, pp. 64–9.

Ford, T.D. (1967b) A quartz-rock-filled sink-hole on the Carboniferous Limestone near Castleton, Derbyshire. *Mercian Geologist*, 2, 57–62.

Ford, T.D. (1968) Field meeting to Charnwood Forest, Leicestershire. *Proceedings of the Yorkshire Geological Society,* 36, 344–8.

Ford, T.D. (1969) The Blue John fluorspar deposits of Treak Cliff, Derbyshire, in relation to the boulder bed. *Proceedings* of the Yorkshire Geological Society, 37, 153–7.

Ford, T.D. (1976) The ores of the South Pennines and Mendip Hills, England — a comparative study. In *Handbook of Strata-Bound and Stratiform Ore Deposits. II: Regional Studies and Specific Deposits* (ed. K.H. Wolf), Elsevier, Amsterdam, Vol. 5, pp. 161–95.

Ford, T.D. (1994) Blue John Fluorspar. Geology Today, 10(5), 186–90.

Ford, T.D. (2000) Derbyshire Blue John, Ashbourne Editions, Ashbourne, 112 pp.

Ford, T.D. (2001) The geology of the Matlock mines: a review. *Bulletin of the Peak District Mines Historical Society*, 14, *1–3*4.

Ford, T.D. (2002) Rocks and Scenery of the Peak District, Landmark, Ashbourne, 96 pp.

Ford, T.D. and meson, P.R. (1971) The fluorspar mining potential of the Derbyshire orefield. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 80, B186–210.

Ford, T.D. and Jones, J.A. (2007) The geological setting of the mineral deposits at Brassington and Carsington, Derbyshire. *Bulletin of the Peak District Mines Historical Society*, 16(5), 1–23.

Ford, T.D. and Rieuwerts, J.H. (eds) (1975) *Lead Mining in the Peak District,* 2nd edn, Peak Park Board, Bakewell, 136 pp.

Ford, T.D. and Sarjeant, W.A.S. (1964) The Peak District Mineral Index. *Bulletin of the Peak District Mines Historical Society,* 2, 120–50.

Ford, T.D. and Worley, N.E. (1977) Phreatic caves and sediments at Matlock, Derbyshire. In *Proceedings of the 7th International Speleological Congress, Sheffield, 1977* (ed. T.D. Ford), British Cave Research Association, Bridgwater, pp. 194–6.

Fortey, N.J. (1978) Mineral parageneses of the Harding Vein Tungsten deposit, Carrock Fell Mine, Cumbria. *Mineralogy Unit Report, Institute of Geological Sciences*, 228.

Fortey, N.J. and Cooper, D.C. (1986) Tourmalinisation in the Skiddaw Group around Crummock Water, English Lake District. *Mineralogical Magazine*, 50, 17–26.

Fortey, N.J., Ingham, J.D., Skilton, B.R.H., Young, B. and Shepherd, T.J. (1984) Antimony mineralisation at Wet Swine Gill, Caldbeck Fells, Cumbria. *Proceedings of the Yorkshire Geological Society*, 45, 59–65.

Foster, C. Le N. (1875) Notes on Haytor Iron Mine. Quarterly Journal of the Geological Society of London, 31, 628–30.

Foster, C. Le N. (1878) Remarks on some Tin Lodes in the St Agnes District. *Transactions of the Royal Geological Society of Cornwall*, 9, 205–19.

Foster-Smith, J.R. (1974) *The Non-Ferrous Mines of Flintshire (Part 1 of The Non-Ferrous Metal Mines of Wales), Northern Cavern and Mine Research Society Occasional Publication,* No. *7,* Northern Cavern and Mine Research Society, Sheffield, 91 pp.

Foster-Smith, J.R. (1977) *The Mines of Merioneth (Part 4 of The Non-Ferrous Metal Mines of Wales), British Mining — Monograph of the Northern Mine Research Society,* No. 6. Northern Mine Research Society, Skipton, 41 pp.

Foster-Smith, J.R. (1981) The Non-Ferrous Mines of the South Wales area (Part 7 of The Non-Ferrous Metal Mines of Wales), British Mining — Monograph of the Northern Mine Research Society, No. 18. Northern Mine Research Society, Sheffield, 54 pp.

Fox-Strangeways, C. (1900) *The Geology of the Country Between Atberstone and Cbarnwood Forest,* Memoir of the Geological Survey of Great Britain, Sheet 155 (England and Wales), HMSO, London, 102 pp.

Fox-Strangeways, C. (1903) *The Geology of the Country Near Leicester,* Memoir of the Geological Survey of Great Britain, Sheet 156 (England and Wales), HMSO, London, 122 pp.

Francis, E.H. (1982) Magma and sediment I. Emplacement mechanism of late Carboniferous tholeiite sills in northern Britain. *Journal of the Geological Society of London*, 139, 1–20.

Frodsham, K. and Gayer, R.A. (1997) Variscan compressional structures within the main productive coal-bearing strata of South Wales. *Journal of the Geological Society of London*, 154, 195–208.

Gallagher, M.J. *et al.* (1983) Stratabound arsenic and vein antimony mineralization in Silurian greywackes at Glendinning, south Scotland. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 59, 81 pp.

Garven, G. and Freeze, R.A. (1984) Theoretical analysis of the role of groundwater flow in the genesis of stratabound ore deposits (parts 1 and 2). *American Journal of Science*, 284, 1085–174.

Gayer, R.A. and Criddle, A.J. (1969) Mineralogy and genesis of the Llanharry iron ore deposits, Glamorgan. In *Proceedings of the Ninth Commonwealth Mining and Metallurgy Congress, London*, 1969, Vol. 2, Institution of Mining and Metallurgy, London, pp. 605–26.

Gayer, R.A. and Rickard, D. (1993) Gold in South Wales coal. Nature, 364, 395.

Geister, G. and Rieck, B. (1996) Bechererite, $(Zn,Cu)_6 Zn_2 (OH)_{13[}(S,Si)(O, OH)_4]_2$, a novel mineral species from the Tonopah-Belmont mine, Arizona. *American Mineralogist*, 81, 244–8.

Gemmell, A. and Myers, J.O. (1952) Underground Adventure, Dalesman, Clapham, 141 pp.

Geological Survey of Great Britain (1903) *Leicester Sheet 156. 1 inch to 1 mile,* Ordnance Survey for the Geological Survey, Southampton.

Geological Survey of Great Britain (1932) *Atherstone Sheet 155. 1 inch to 1 mile,* revised edn, Ordnance Survey for the Geological Survey, Southampton.

George, M.C., Stone, M., Fejer, E.E. and Symes, R.F. (1981) Triplite from the Megiliggar Rocks, Cornwall. *Mineralogical Magazine*, 44, 236–8.

Gibbard, P.L. and Lewin, J. (2003) The history of the major rivers of southern Britain during the Tertiary. *Journal of the Geological Society of London,* 160, 829–45.

Gibbons, W. (1980) The geology of the Mona Complex of the Lleyn Peninsula and Bardsey Island, North Wales. Unpublished PhD thesis, Portsmouth Polytechnic.

Gibbons, W and McCarroll, D. (1993) *Geology of the Country Around Aberdaron, Including Bardsey Island,* Memoir of the British Geological Survey, Sheet 133 (England and Wales), HMSO for the British Geological Survey, London, 88 pp.

Gilbey, J.W.G. (1968) The mineralogy, para-genesis and structure of the ores of the Dolgellau Gold Belt, Merionethshire, and associated wall rock alteration. Unpublished PhD thesis, University of London.

Glasby, G.P. (1974) A geochemical study of the manganese ore deposits of the Harlech Dome, North Wales. *Journal of Earth Science*, 8, 445–50.

Gleeson, S.A., Wilkinson, J.J., Shaw, H.F. and Herrington, R.J. (2000) Post magmatitic hydrothermal circulation and the origin of base metal mineralization, Cornwall, UK. *Journal of the Geological Society of London*, 157, 589–600.

Goodchild, J.G. (1882) Contribution towards a list of the minerals occurring in Cumberland and Westmorland (Part I). *Transactions of the Cumberland Association for the Advancement of Literature and Science*, No. 7 (for 1881–1882), 101–203.

Goodchild, J.G. (1883) Contribution towards a list of the minerals occurring in Cumberland and Westmorland (Part II). *Transactions of the Cumberland Association for the Advancement of Literature and Science*, No. 8, 189–204.

Goodchild, J.G. (1885) Contribution towards a list of the minerals occurring in Cumberland and Westmorland (concluding part). *Transactions of the Cumberland Association for the Advancement of Literature and Science*, No. 9, 175–99.

Goodchild, I I.G. (1889–1890) Some observations upon the mode of occurrence and genesis of metalliferous deposits. *Proceedings of the Geologists' Association*, 11, 45–69.

Goode, A.J.J. (1973) The mode of intrusion of Cornish elvans. Report of the Institute of Geological Sciences, 73/7, 8 pp.

Goode, A.J.J. and Taylor, R.T. (1980) Intrusive and pneumatolytic breccias in south-west England. *Report of the Institute of Geological Sciences*, 80/2, 23 pp.

Goode, A.J.J. and Taylor, R.T. (1988) *Geology of the Country Around Penzance,* Memoir of the British Geological Survey, Sheets 351 and 358 (England and Wales), HMSO, London, 52 pp.

Goodger, K.B., Buglass, A. and Scrutton, (1984) Sequence of coralline faunas and depositional environments in the Middle Devonian Daddyhole Limestone Formation Stratotype Section, Torquay, Devon. *Proceedings of the Ussher Society,* 6, 13–24.

Gordon, W.T. (1922) Native gold at Torquay, Devonshire. *Nature*, 109, 583.

Gough, J.W. (1930) The Mines of Mendip, Clarendon Press, Oxford, 269 pp.

Gough, J.W. (1967) The Mines of Mendip, 2nd edn, David and Charles, Newton Abbot, 270 pp.

Goulding, J. and Price, M.T. (1995) Well-crystallised fraipontite from Machen quarry, Mid Glamorgan: a first Welsh locality. *Journal of the Russell Society*, 6, 50.

Gradstein, E.M., Ogg, J.G. and Smith, A.G. (2004) *A Geologic Time Scale 2004,* Cambridge University Press, Cambridge, 589 pp.

Green, D.I. (1987) The minerals of Meadowfoot Smelter. UK Journal of Mines and Minerals, 2, 3-9.

Green, D.I. (1989) Scotlandite from Higher Roughton Gill, Caldbeck Fells, Cumbria. Mineralogical Magazine, 53, 653.

Green, D.I. and Briscoe, P.J. (2002) Twenty years in minerals: The classic areas of Northern England. *UK Journal of Mines and Minerals*, 22, 3–42.

Green, D.I. and Middleton, D. (1996) Alpine-type vein minerals from Tanygrisiau, Gwynedd. UK Journal of Mines and Minerals, 16, 30–3.

Green, D.I., Rust, S.A. and Mason, J.S. (1996) Frongoch Mine, Dyfed. UK journal of Mines and Minerals, 17, 29–38.

Green, D.I., McCallum, D. and Wood, M. (1997) Supergene Pb, Cu, Zn and Ag minerals from Force Crag Mine, Coledale, Cumbria. *UK Journal of Mines and Minerals*, 18, 10–14.

Green, D.I., Neall, T., Cotterell, T. and Leppington, C.M. (2003) Symplesite and parasymplesite from Cumbria and Cornwall. *Journal of the Russell Society*, 8, 16–17.

Green, D.I., Bridges, T.F., Cooper, M.P. and Thomson, N. (2005a) A review of the supergene mineralization at Silver Gill, Caldbeck Fells, Cumbria. *Journal of the Russell Society*, 8, 85–97.

Green, D.I., Neall, T. and Tindle, A.G. (2005b) The composition of füllöppite from Wet Swine Gill, Caldbeck Fells, Cumbria. *Journal of the Russell Society*, 8, 101–2.

Green, D.I., Hubbard, N. and Cotterell, T.F. (2005c) The first British occurrence of ewaldite, at Dolyhir Quarry Old Radnor, Powys. *UK Journal of Mines and Minerals*, 25, 23–4.

Green, D.I., Young, B. and Ixer, R.A. (2006) Beaverite from Cumbria and Yorkshire. *Proceedings of the Yorkshire Geological Society*, 56, 155–8.

Green, G.W. (1958) The central Mendip lead-zinc orefield. Bulletin of the Geological Survey of Great Britain, 14, 70–90.

Green, G.W. and Welch, F.B.A. (1965) *The Geology of the Country Around Wells and Cheddar,* Memoir of the Geological Survey of Great Britain, Sheet 280 (England and Wales), HMSO, London, 225 pp.

Green, J.F.N. (1917) The age of the chief intrusions of the Lake District. *Proceedings of the Geologists' Association*, 28, 1–30.

Greenly, E. (1919) *The Geology of Anglesey,* Memoir of the Geological Survey of Great Britain (England and Wales), HMSO, London, 2 vols, 980 pp.

Greenwood, D. and Smith, F.W. (1977) Fluorspar mining in the northern Pennines. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 86, B181–90.

Greg, R.P. (1851) A description of matlockite, a new oxychloride of lead. Philosophical Magazine (Series 4), 2, 120–1.

Greg, R.P. and Lettsom, W.G. (1858) *Manual of the Mineralogy of Great Britain and Ireland,* John van Voorst, London, 437 pp.

Grguric, B.A. and Nickel, E.H. (2006) Acicular wurtzite and sphalerite from the Lockridge Mine, Bere Alston. *UK Journal of Mines and Minerals*, 27, 39–40.

Gross, G.A. (1970) Nature and occurrence of iron ore deposits. In *Survey of World Iron Ore Resources: Occurrence and Appraisal,* United Nations, New York, 479 pp.

Groves, A.W. (1947) Results of magnetometric survey at Benallt manganese mine, Rhiw, Caernarvonshire. *Bulletin of the Institution of Mining and Metallurgy*, No. 484, 1–24; No. 486, 37–47; No. 490, 29–32.

Groves, A.W. (1952) Wartime Investigations into the Hematite and Manganese Ore Resources of Great Britain and Northern Ireland, Permanent Records of Research and Development Monographs Series, No. 20–703, Ministry of Supply, London, 359 pp.

Hacker, D. (2003) Fluorite — the dealers and the collectors. In *Fluorspar in the North Pennines* (ed. R.A. Fairbairn), Friends of Killhope, Killhope, 132 pp.

Haggerty R. (1995) The mineralization of the Llanrwst Orefield, North Wales. *UK Journal of Mines and Minerals,* 15, 5–10.

Haggerty, R., Budd, P, Rohl, B. and Gale, N.H. (1996) Pb-isotope evidence for the role of Mesozoic basins in the genesis of Mississippi Valley-type mineralization in Somerset, UK. *Journal of the Geological Society of London*, 153, 673–6.

Hall, A. (1971) Greisenisation in the granite of Cligga Head, Cornwall. *Proceedings of the Geologists' Association*, 82, 209–30.

Hall, A. (1994) West Cornwall, Geologists' Association Guide, No. 19, The Geologists' Association, London, 50 pp.

Hall, G.W. (1990) The Goldmines of Merioneth, 2nd edn, Pound House Press, Newent 99 pp.

Hall, G.W. (1993) Metal Mines of Southern Wales, 2nd edn, Griffin Publications, Kington, 97 pp.

Hall, G.W. (1995) The Minera Mines from 1849. In *Minera Lead Mines and Quarries* (ed. J. Bennett), Wrexham Maelor Borough Council, Wrexham, pp. 45–67.

Hall, S. (1930) The geology of the Godolphin granite. A study of the coastal geology between Perranuthnoe and Looe Pool. *Proceedings of the Geologists' Association,* 41, 117–47.

Hall, T.C.F. (1922) The distribution and genesis of the lead and associated ores in Western Shropshire. *Mineralogical Magazine*, 27, 201–9.

Halliday, A.N. and Mitchell, J.G. (1976) Structural K-Ar and ⁴⁰Ar-³⁹Ar age studies from the Lizard complex, England. *Earth and Planetary Science Letters*, 29, 227–37.

Halliday, A.N., Shepherd, T.J., Dickin, A.P. and Shelsey, J.T. (1990) Sm-Nd evidence for the age and origin of a Mississippi Valley Type ore deposit. *Nature*, 344, 54–6.

Halls, C. (1987) A mechanistic approach to the paragenetic interpretation of mineral lodes in Cornwall. *Proceedings of the Ussher Society*, 6, 548–54.

Halls, C., Cosgrove, J.W. and Camm, G.S. (1999) Formation of systems of parallel greisen lodes in the granites of SW England. In *Mineral Deposits: Processes to Processing: Proceedings of the 5th Biennial SGA Meeting and IAGOD 10th Quadrennial Symposium, London, 22–25 August 1999* (eds C.J. Stanley, A.H. Rankin, R.J. Bodnar, J. Naden, B.W.D. Yardley, A.J. Griddle, R.D. Hagni, A.P. Gize, J. Pasava, A.J. Fleet, R. Seltmann, C. Halls, M. Stemprok, B. Williamson, R.J. Herrington, R.E.T. Hill, H.M. Prichard, F. Wall), A.A. Balkema, Rotterdam, pp. 361–4.

Halls, C., Cosgrove, J.W. and Camm, G.S. (2000) The influence of fluid pressure in governing fracture geometry and mineral textures in the pneumatolytic lode systems of SW England. *Geoscience in South-West England*, 10, 58–63.

Halls, C., Zhu Jinchu and Lin Yucheng (2001) Field evidence for discrete episodes of intrusion during the emplacement of the Land's End pluton. Results from detailed mapping and observation of the Porth Ledden coastal section. *Abstracts, Ussher Society Conference, Sidmouth, Devon, January 2001, 221–2.*

Hamad, S. El D. (1963) The chemistry and mineralogy of the olivine nodules of Calton Hill, Derbyshire. *Mineralogical Magazine*, 38, 483–97.

Hamilton Jenkin, A.K. (1959) The rise and fall of Wheal Alfred. Journal of the Royal Institution of Cornwall, 3, 124–37.

Hamilton Jenkin, A.K. (1965) *Mines and Miners of Cornwall. Part XI: Marazion, St Hilary and Breage,* Truro Bookshop, Truro, 68 pp.

Hamilton Jenkin, A.K. (1974) Mines of Devon. Volume 1 The Southern Area, David and Charles, Newton Abbot, 154 pp.

Hamilton Jenkin, A.K. (1981) Mines of Devon, North and East of Dartmoor, Devon Library Services, Exeter, 226 pp.

Hancox, E.G. (1934) Witherite and barites. Mining Magazine, 51, 76-9.

Harding, R.R. (1978) The geological setting of the nodules at Dulcote, Somerset. Journal of Gemmology, 16, 77-85.

Harrison, R.K. (1975) Concretionary concentrations of the rarer elements in Permo-Triassic red beds of southwest England. *Bulletin of the Geological Survey of Great Britain*, 52, 1–26.

Harrison, W.J. (1885) On the pre-Carboniferous floor of the Midlands. *Midland Naturalist,* 8, 38–40; 69–73; 100–104; 131–5; 163–7; 194–8.

Hartley J. (1959) Coronadite from Cumberland. Mineralogical Magazine, 32, 343-4.

Hartley, J. (1984) A list of minerals associated with the ore deposits of the Caldbeck Fells, Cumbria. *Transactions of the Leeds Geological Association*, 10, 22–39.

Haslam, H.W. (1965) The Ben Nevis igneous complex. Unpublished PhD thesis, University of Cambridge.

Hawkes, J.R., Harding, R.R. and Darbyshire, D.P.F. (1975) Petrology and age of the Brannel, South Crofty and Wherry elvan dykes, Cornwall. *Bulletin of the Geological Survey of Great Britain*, 52, 27–42.

Hawkins, J. (1818) On Submarine Mines. *Transactions of the Royal Geological Society of Cornwall*, 1, 127–42.

Hawkins, T.R.W. (1966) Boreholes at Parys Mountain, near Amlwch, Anglesey. *Bulletin of the Geological Survey of Great Britain*, 24, 7–18.

Heddle, M.F. (1901) The Mineralogy of Scotland, David Douglas, Edinburgh, 2 volumes.

Henley, S. (1971) Hedenbergite and sphalerite from the Perran iron lode, Cornwall. *Proceedings of the Ussher Society,* 2, 329–34.

Henneberger, R.C. and Browne, P.R.L. (1988) Hydrothermal alteration and evolution of the Ohakuri hydrothermal system. *Journal of Volcanology and Geothermal Research*, 34, 211–31.

Henwood, W.J. (1856) Notice of the Copper Turf of Merioneth. Report of the Royal Institution of Cornwall, 61-4.

Hessenberg, G.F. (1864a) Caledonit von Red Gill, Cumberland. *Abhandlungen der Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main*, 7, 304–8.

Hessenberg, G.F. (1864b) Linarit (Bleilasur) aus Cumberland. *Abhandlungen der Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main,* 5, 263–73.

Hewer, R. and McFadzean, A. (1992) Iron. In *Beneath the Lakeland Fells: Cumbria's Mining Heritage* (ed. Cumbria Amenity Trust Mining Society), Red Earth Publications, Ulverston, pp. 85–106.

Hey, M.H. and Bannister, F.A. (1938) Russellite, a new British mineral. *Mineralogical Magazine*, 25, 41–9.

Hibbert, A., Johnson, W.H. and Adams, J.J. (1940) *Survey of Iron Ore Resources of West Cumberland,* Whitehaven News for the Cumberland Development Council, Whitehaven, 96 pp.

Hill, E. and Bonney, T.G. (1878) The Pre-Carboniferous Rocks of Charnwood Forest. Part II. *Quarterly Journal of the Geological Society of London*, 34, 199–239.

Hill, P.I. and Manning, D.A.C.[,] (1987) Multiple intrusion and pervasive hydrothermal circulation in the St Austell Granite, Cornwall. *Proceedings of the Ussher Society*, 6, 447–53.

Hill, J.A. and Dunham, K.C. (1968) The barytes deposits at Closehouse, Lunedale, Yorkshire. *Proceedings of the Yorkshire Geological Society*, 36, 351–72.

Himus, G.W. and Sweeting, G.S. (1951) The Elements of Field Geology, University Tutorial Press, London, 270 pp.

Hitchen, C.S. (1934) The Skiddaw Granite and its residual products. *Quarterly Journal of the Geological Society of London*, 90, 158–200.

Hobson, D.M. (1972) Boulangerite from Port Gaverne, north Cornwall. Mineralogical Magazine, 38, 767-8.

Holland, E.G. (1981) Coniston Copper Mines, Cicerone Press, Milnthorpe, 120 pp.

Holland, E.G. (1986) Coniston Copper, Cicerone Press, Milnthorpe, 312 pp.

Holmes, I., Chambers, A.D., Ixer, R.A., Turner, P and Vaughan, D.J. (1983) Diagenetic processes and the mineralization in the Triassic of central England. *Mineralium Deposita*, 18, 365–77.

Holyer, V.A.D. (1972) Some minerals found in the Lizard Peninsula. The Lizard, 4, 4.

Holyer, V.A.D. (1975) Some minerals found in the Lizard Peninsula. Russell Society Newsletter, No. 3, 18.

Hornshaw, T.R. (1975) *Copper Mining in Middleton Tyas, North Yorkshire County Record Office Publication,* No. 6, North Yorkshire County Council, Northallerton, 153 pp.

Hosking, K.F.G. (1949) Fissure systems and mineralisation in Cornwall. *Transactions of the Royal Geological Society of Cornwall*, 18, 9–49.

Hosking, K.F.G. (1952) Cornish pegmatites and bodies with pegmatitic affinities. *Transactions of the Royal Geological Society of Cornwall*, 18, 411–55.

Hosking, K.F.G. (1954) The pegmatites of Trolvis Quarry, Carnmenellis, Cornwall. Geological Magazine, 91, 273-85.

Hosking, K.F.G. (1957) The vein system of St Michael's Mount, Cornwall. *Transactions of the Royal Geological Society of Cornwall*, 18, 493–509.

Hosking, K.F.G. (1964) Permo-Carboniferous and later mineralisation of Cornwall and south-west Devon. In *Present Views on Some Aspects of the Geology of Cornwall and Devon* (eds K.F.G. Hosking and G.H. Shrimpton), Royal Geological Society of Cornwall, Penzance, pp. 201–45.

Hosking, K.F.G. and Camm, S (1985) Occurrence of cassiterite and other species of economic interest in the greisenised granite porphyry of Cameron Quarry, St Agnes, Cornwall. In *High Heat Production (HHP) Granites, Hydrothermal Circulation and Ore Genesis,* Institution of Mining and Metallurgy, London, pp. 517–32.

Hosking, K.F.G. and Shrimpton, G.J. (eds) (1966) Present Views of Some Aspects of the Geology of Cornwall and Devon, a Series of Papers Compiled to Commemorate the 150th Anniversary of the Inauguration of the Royal Geological Society of Cornwall, Royal Geological Society of Cornwall, Penzance, 330 pp.

Howells, M.F. (2007) British Regional Geology: Wales, British Geological Survey, Keyvvorth, 230 pp.

Howells, M.F. and Leveridge, B.E. (1980) The Capel Curig Volcanic Formation. *Report of the Institute of Geological Sciences*, 80/6.

Howells, M.F. and Smith, M. (1997) *Geology of the Country Around Snowdon,* Memoir of the British Geological Survey, Sheet 119 (England and Wales), The Stationery Office for the British Geological Survey, London, 104 pp.

Howells, M.F., Campbell, S.D.G. and Reedman, A.J. (1985) Isolated pods of subaqueous welded ash-flow tuff: a distal facies of the Capel Curig Volcanic Formation (Ordovician), North Wales. *Geological Magazine*, 122, 133–49.

Howells, M.F., Reedman, A.J. and Campbell, S.D.G. (1991) *Ordovician (Caradoc) Marginal Basin Volcanism in Snowdonia (North-west Wales),* HMSO for the British Geological Survey, London, 191 pp.

Howie, R.A. (1965) Bustamite, rhodonite, spessartine, and tephroite from Meldon, Okehampton, Devonshire. *Mineralogical Magazine*, 34, 249–55.

Hughes, S.J.S. (1981a) The mines of Talybont; Part 1: From AD70 to 1800. Industrial Archaeology, 16, 199–212.

Hughes, S.J.S. (1981b) *The Cwmystwyth Mines, British Mining — Monograph of the Northern Mine Research Society,* No. 17, Northern Mine Research Society, Sheffield, 78 pp.

Hughes, S.J.S. (1990) *The Darren Mines, British Mining — Monograph of the Northern Mine Research Society,* No. 40, Northern Mine Research Society, Sheffield, 153 pp.

Humphreys, D.A., Thomas, J.H., Williams, P.A. and Symes, R.F. (1980) The chemical stability of mendipite, diaboléite, chloroxiphite, cumengéite and their relationships to other lead (II) minerals. *Mineralogical Magazine*, 43, 901–4.

Hunt, R. (1884) British Mining, Crosby Lockwood, London, 944 pp.

Hunt, R. (1887) British Mining, 2nd edn, Crosby Lockwood, London, 944 pp.

Hutchinson, D., Prichard, H.M. and MacLeod, C.J. (1999) Evidence for partial melting and melt impregnation of mantle peridotites leading to PGM deposits: a comparison of samples from the Lizard and Troodos ophiolites and the Tonga Trench. In *Mineral Deposits: Processes to Processing: Proceedings of the 5th Biennial SGA Meeting and IAGOD 10th Quadrennial Symposium, London, 22–25 August 1999* (eds C.J. Stanley, A.H. Rankin, R.J. Bodnar, J. Naden, B.W.D. Yardley, A.J. Criddle, R.D. Hagni, A.P. Gize, J. Pasava, A.J. Fleet, R. Seltmann, C. Halls, M. Stemprok, B. 'Williamson, R.J. Herrington, R.E.T. Hill, H.M. Prichard, F. Wall), A.A. Balkema, Rotterdam, pp. 729–32.

Ince, F. (2005) The mineralogy of Newhurst Quarry, Shepshed, Leicestershire. Journal of the Russell Society, 8, 47-65.

Inegbenebor, A.L, Williams, P.A., Bevins, R.E., Lambert, M.P. and Hart, A.D. (1992) Composition of pyromorphites from Broken Hill, New South Wales. *Records of the Australian Museum*, Supplement 15, 29₇37.

Ineson, P.R. (1968) The petrology and geochemistry of altered quartz-dolerite in the Closehouse Mine area. *Proceedings* of the Yorkshire Geological Society, 36, 373–84.

Ineson, P.R. (1972) Alteration of the Whin Sill adjacent to barytes-witherite mineralisation, Settlingstones Mine, Northumberland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 81, B67–72.

Ineson, P.R. and Ford, T.D. (1982) The South Pennine orefield: its genetic theories and eastward extension. *Mercian Geologist*, 8, 285–304.

Ineson, P.R. and Mitchell, J.G. (1974) K-Ar isotopic age determinations from some Lake District mineral localities. *Geological Magazine*, 111, 521–37.

Ineson, P.J. and Mitchell, J.G. (1975) K-Ar age determinations on some Welsh mineral localities. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 84, B7–16.

Institute of Geological Sciences (1970) *Rhyl. England and Wales Sheet 95. Solid and drift. 1:50 000,* Ordnance Survey for the Institute of Geological Sciences, Southampton.

Institute of Geological Sciences (1974) *Ivybridge. England and Wales Sheet 349. Drift 1:50 000,* Ordnance Survey for the Institute of Geological Sciences, Southampton.

Institute of Geological Sciences (1975) *Newport. England and Wales Sheet 249. Solid. 1:50 000,* Ordnance Survey for the Institute of Geological Sciences, Southampton.

Institute of Geological Sciences (1979) *Tongwynlais. England and Wales Sheet ST18SW 1:10 000,* Ordnance Survey for the Institute of Geological Sciences, Southampton.

Institute of Geological Sciences (1982) *Harlech. England and Wales Sheet 135 and part of Sheet 149. Solid. 1:50 000,* Ordnance Survey for the Institute of Geological Sciences, Southampton.

Institute of Geological Sciences (1984) Creigiau. England and Wales Sheet ST08SE. 1:10 000, Ordnance Survey for the Institute of Geological Sciences, Southampton.

Issac, K.P., Turner, P.J. and Stewart, I.J. (1982) The evolution of the Hercynides of central SW England. *Journal of the Geological Society of London*, 139, 521–31.

Ixer, R.A. (1974) The Mineralogy and Para-genesis of a Fluorspar Flat at Masson Hill, Matlock, Derbyshire. *Mineralogical Magazine*, 39, 811–15.

Ixer, R.A. (1975) A Revision of Part of the Matlock Group at Masson Hill, Matlock, Derbyshire. *Mercian Geologist*, 5, 181–8.

Ixer, R.A. (1978a) The distribution of bravoite and nickeliferous marcasite in central Britain. *Mineralogical Magazine*, 42, 149–50.

Ixer, R.A. (1978b) The Emplacement of a Fluorspar Flat at Masson Hill, Matlock, Derbyshire. *Mercian Geologist*, 6, 245–55.

Ixer, R.A. (1986) The ore mineralogy and parageneses of the lead-zinc-fluorite-baryte orefields of the English Pennine and Mendip Hills. In *Mineral Parageneses* (ed. S. Augustithis), Theophrastus Publications, Athens, pp. 179–210.

Ixer, R.A. and Budd, P. (1998) The mineralogy of Bronze age copper ores from the British Isles: implications for the composition of early metalwork. *Oxford Journal of Archaeology*, 17, 15–41.

Ixer, R.A. and Davies, J. (1996) Mineralisation at the Great Orme Copper Mines, Llandudno, North Wales. *UK Journal of Mines and Minerals*, 17, 7–14.

Ixer, R.A. and Gaskarth, J.W. (1975) Parys Mountain — a possible Kuroko-style deposit. Paper presented to the Mineral Deposit Studies Group Meeting, Leicester.

Ixer, R.A. and Stanley, C.J. (1987) A silver-nickel-cobalt mineral association from Tynebottom Mine, Garrigill, near Alston, Cumbria. *Proceedings of the Yorkshire Geological Society*, 46, 133–9.

Ixer, R.A. and Stanley, C.J. (1996) Siegenite-bearing assemblages found at the Great Orme Mine, Llandudno, N. Wales. *Mineralogical Magazine*, 60, 978–82.

Ixer, R.A. and Stanley, C.J. (1998) Enargite group minerals from Scaleber Bridge, North Yorkshire. *Journal of the Russell Society*, 7(1), 41–2.

Ixer, R.A. and Townley, R. (1979) The sulphide mineralogy and paragenesis of the South Pennine Orefield, England. *Mercian Geologist*, 7, 51–64.

Ixer, R.A. and Vaughan, D.J. (1982) The primary ore mineralogy of the Alderley Edge deposit, Cheshire. *Mineralogical Magazine*, 46, 485–92.

Ixer, R.A. and Vaughan, D.J. (1993) Lead-zinc-fluorite-baryte deposits of the Pennines, North Wales and the Mendips. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 355–418.

Ixer, R.A., Stanley, C.J. and Vaughan, D.J. (1979) Cobalt-, nickel-, and iron-bearing sulphar-senides from the North of England. *Mineralogical Magazine*, 43, 389–95.

Ixer, R.A., Pattrick, R.A.D. and Starkey, R.E. (1993) Lead-zinc-copper-arsenic-baryte mineralization from Clevedon, near Bristol, *England. Journal of the Russell Society*, 5, 23–30.

Ixer, R.A., Young, B. and Stanley, C.J. (1996) Bismuth-bearing assemblages from the Northern Pennine Orefield. *Mineralogical Magazine*, 60, 317–24.

Jackson, D.E. (1978) The Skiddaw Group. In *The Geology of the Lake District* (ed. F. Moseley), *Yorkshire Geological Society Occasional Publication*, No. 3, Yorkshire Geological Society, Leeds, pp. 79–98.

Jackson, N.J. (1974) Grylls Bunny, a 'tin' floor at Botallack. Proceedings of the Ussher Society, 3, 186-8.

Jackson, N.J. and Rankin, A.H. (1976) Fluid inclusion studies at St Michael's Mount. *Proceedings of the Ussher Society,* 3, 430–4.

Jackson, N.J., Halliday, A.N., Sheppard, S.M.F. and Mitchell, J.G. (1982) Hydrothermal activity in the St. Just mining district, Cornwall, England. In *Metallization Associated with Acid Magmatism* (ed. A.M. Evans), Wiley, Chichester, pp. 137–79.

Jambor, J.L. (1971) Distribution of some minor elements in the Nipissing Diabase. Canadian Mineralogist, 11, 320–57.

Jars, G. (1765) Voyages Metallurgiques, 3, 72-5 (Paris).

Jeans, C.V. (2006) Clay mineralogy of the Permo-Triassic strata of the British Isles: onshore and offshore. *Clay Minerals,* 41, 309–49.

Jeffrey, C.A. (1997) Replacement mineralization styles and breccia dome formation at Dirtlow Rake fluorite-barite deposit, Castleton, England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 106, B15–23.

Jenkins, D.A. (1995) Mynydd Parys copper mines. Archaeology in Wales, 35, 35-6.

Jenkins, D.A. (1999) The case for leaving old mines unsealed. Earth Heritage, 12, 16.

Jenkins, D.A. and Johnson, D.B. (1993) Abandoned metal mines: a unique mineralogical and microbiological resource. *Journal of the Russell Society*, 5, 40–4.

Jenkins, D.A., Johnson, D.B. and Freeman, C. (2000) Mynydd Parys Cu-Pb-Zn mines: mineralogy, microbiology and acid mine drainage. In *Environmental Mineralogy: Microbial Interactions, Anthropogenic Influences, Contaminated Land and Waste Management* (eds J.D. Cotter-Howells, L.S. Campbell, E. Valsami-Jones and M. Batchelder), *Mineralogical Society Series,* No. 9, Mineralogical Society of Great Britain and Ireland, London, pp. 161–79.

Jennings, B. (ed.) (1967) A History of Maderdale, Advertiser Press, Huddersfield, 504 pp.

Johnson, D.B., Kelso, W.I. and Jenkins, D.A. (1979) Bacterial streamer growth in a disused pyrite mine. *Environmental Pollution*, 18, 107–18.

Johnson, G.A.L. (ed.) (1958) Biostromes in the Namurian Great Limestone of northern England. *Palaeontology*, 1, 147–57.

Johnson, G.A.L (1970) Geology of Durham County *Transactions of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne*, 41, 1–152.

Johnson, G.A.L. (ed.) (1995) Robson's geology of North East England. *Transactions of the Natural History Society of Northumbria*, 56, 226–391.

Johnson, N.C. (1984a) Wizard's Well Mine, Alderley Edge — early nineteenth century cobalt workings. *The Journal of the Derbyshire Caving Club,* 1984, 17–21.

Johnson, N.C. (1984b) Brynlow Mine, Alderley Edge — an eighteenth century working. *The Journal of the Derbyshire Caving Club,* 1984, 8–13.

Johnston, J.F.W. (1835) On the dimorphism of barytocalcite. *Philosophical Magazine*, 6, 1–4.

Johnston, J.F.W. (1837) On the composition of the right rhombic barytocalcite the bicalcareo-carbonate of baryta of Dr, Thomson. *Philosophical Magazine*, 10, 373–6.

Jones, A.D. (1983) Nantycagl. Mineral Realm, 3, 42-76.

Jones, A.D. (1987) The minerals of Llechweddheln. UK Journal of Mines and Minerals, 3, 25-7.

Jones, B. (1982) Roman Sites on Mendip, Bristol and Avon Archaeological Research Group, Bristol.

Jones, D.G., Plant, J.A. and Colman, T.B (1991) New evidence for Visean–Namurian shales as the source of the Pennine mineralization of England. In *Source, Transport and Deposition of Metals: Proceedings of the 25th SGA Anniversary Meeting, Nancy, 30 August-3 September* (eds M. Pagel and J.L. Leroy), AA. Balkema, Rotterdam, pp. 309–12.

Jones, D.G., Plant, J.A. and Colman, T.B. (1994) The genesis of the Pennine mineralization of northern England and its relationship to mineralization in central Ireland. In *Sediment-Hosted Zn-Pb Ores* (eds L. Fontboté and M. Boni), *Society for Geology Applied to Mineral Deposits Special Publication*, No. 10, Springer-Verlag, Berlin, pp. 198–218.

Jones, E.M., Rice, C.M. and Tweedie, J.R. (1987) Lower Proterozoic stratiform sulphide deposits in Loch Maree Group, Gairloch, northwest Scotland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 96, B128–40.

Jones, F. (1934) Further notes on the petrology of the igneous rocks of Leicestershire. *Report of the British Association for the Advancement of Science,* for 1933, 476.

Jones, E and Langley, S. (1931) A Zeolite-tilled Cavity in the Igneous Rock of Croft, Leicestershire. *Geological Magazine*, 68, 181–2.

Jones, J. (1982) Mineralogy of Bage Mine. Bulletin of the Peak District Mines Historical Society, 8, 260-1.

Jones, J.A. and Moreton, N.J.M. (1977) The Mines and Minerals of Mid-Wales, Privately published, 40 pp.

Jones, N., Walters, M. and Frost, P (2004) *Mountains and Orefields: Metal Mining Landscapes of mid and north-east Wales, CBA Research Report Series,* No. 142, Council for British Archaeology York, 192 pp.

Jones, N.S., Guion, P.D., Dickens, D. and Young, B. (1990) Coal Measures palaeoenvironments in West Cumbria. Field meeting. *Proceedings of the Yorkshire Geological Society*, 48, 119–20.

Jones, O.T. (1922) *Lead and Zinc. The Mining District of North Cardiganshire and West Montgomeryshire,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 20, HMSO, London, 207 pp.

Just, J. and Feather, C.E. (1978) Tucekite, a new antimony analogue of hauchecornite. *Mineralogical Magazine*, 42, 278, M21–22.

Kanaris-Sotiriou, R., Neves, R. and Gibb, G.F. (1986) Wall-rock silicification associated with fluorite veins in Carboniferous Limestone at Butts Quarry, Derbyshire, England. *Geological Magazine*, 123, 569–79.

Kciling, G. (1988) Silesian sedimentation and tectonics in the South Wales basin: a brief review. In *Sedimentation in a Synorogenic Basin Complex, the Upper Carboniferous of Northwest Europe* (eds B.M. Besly and G. Kelling), Biocide, Glasgow, pp. 38–42.

Kelly, D. (1994) The Red Hills: Iron Mines of West Cumberland, Red Earth Publications, Ulverston, 176 pp.

Kelman, P.M. (1980) The Lower Carboniferous Volcanic Rocks of the Ashover Area, Derbyshire. *Mercian Geologist*, 8, 11–28.

Kendall, J.D. (1873–1875) The hematite deposits of Whitehaven and Furness. *Transactions of the Manchester Geological Society*, 13, 231–83.

Kendall, J.D (1881–1882) The hematite deposits of Furness. *Transactions of the North of England Institution of Mining and Mechanical Engineers*, 31, 211–37.

Kendall, J.D. (1884) Mineral veins of the Lake District. *Transactions of the Manchester Geological Society*, 17, 292–341.

Kendall, J.D. (1893) The Iron Ores of Great Britain and Ireland, Crosby Lockwood, London, 430 pp.

Kendall, J.D. (1921) 'Flats' and 'sops' in Furness. Mining Magazine, 24, 145-50.

Khan Kakar, S. (1971) A study of the trace-elements associated with the lead-zinc ores of mid-Wales. Unpublished PhD thesis, University of Wales, Aberystwyth.

Khavari-Khorosani, G. and Murchison, D.G. (1978) Thermally Metamorphosed Bitumen from Windy Knoll, Derbyshire, England. *Chemical Geology*, 22, 91–105.

Kidd, A.D. and Taylor, E. (2005) Archaeological excavations at Saddlebole Mine, Alderley Edge. *British Archaeological Reports*, 396, 177–84.

Kimberley, M.M. (1974) Origin of oolitic iron ore by diagenetic replacement of calcareous oolite. Nature, 250, 319–20.

Kimberley, M.M. (1989) Exhalative origins of iron formations. Ore Geology Review, 5, 13-145

King, R.J. (1959) The Mineralisation of the Mountsorrel Granodiorite. *Transactions of the Leicestershire Literary and Philosophical Society*, 53, 18–30.

King, kJ. (1967) The minerals of Leicestershire. Section 1, The elements. *Transactions of the Leicestershire Literary and Philosophical Society*, 61, 55–64.

King, R.J. and Ford, T D. (1968) Mineralization. In *The Geology of the East Midlands* (eds P.C. Sylvester-Bradley and T.D. Ford), Leicester University Press, Leicester, pp. 112–37.

King, R.J. and Wilson, R.N. (1976). An occurrence of vesignieite in Leicestershire. *Mineralogical Magazine*, 40, 533–5.

Kingsbury A. (1941) Mineral localities on the Mendip Hills, Somerset. Mineralogical Magazine, 26, 67-80

Kingsbury, A.W.G. (1964) Some minerals of interest in South-west England. In *Present Views of Some Aspects of the Geology of Cornwall and Devon* (eds K.F.G. Hosking and G.J. Shrimpton), a Series of Papers Compiled to *Commemorate the 150th Anniversary of the Inauguration of the Royal Geological Society of Cornwall*, Royal Geological Society of Cornwall, Penzance, pp. 243–66.

Kingsbury A.W.G. (1968) Demonstration of minerals from Greenhow and Grassington. *Mineralogical Society*, March 14 (Unpublished).

Kingsbury, A.W.G. (1970) Meldon Aplite Quarry and Meldon (Railways) Quarry. In *Geological Highlights of the West Country: A Nature Conservancy Handbook* (ed. W.A. Macfadyen), Butterworths, London, pp. 61–3.

Kingsbury A.W.G. and Hartley, J. (1955) On the occurrence of the rare copper molybdate lindegrenite at Brandy Gill, Carrock Fell, Cumberland. *Mineralogical Magazine*, 30, 723–6.

Kingsbury, A.W.G. and Hartley, J. (1956a) Cosalite and other lead sulphosalts at Grainsgill, Carrock Fell, Caldbeck, Cumberland. *Mineralogical Magazine*, 31, 813–15.

Kingsbury A.W.G. and Hartley, J. (1956b) New occurrences of vanadium minerals (mottramite, descloizite and vanadinite) in the Caldbeck Fells area of Cumberland. *Mineralogical Magazine*, 31, 289–95.

Kingsbury A.W.G. and Hartley, J. (1957a) Childrenite from the Lake District, Cumberland. *Mineralogical Magazine*, 31, 498.

Kingsbury, A.W.G. and Hartley, J. (1957b) Carpholite from Cumberland and Cornwall. *Mineralogical Magazine*, 31, 502.

Kingsbury, A.W.G. and Hartley, J. (1957c) New occurrences of arseniosiderite. *Mineralogical Magazine*, 31, 502.

Kissin, S.J. and Owens, D.R. (1989) The relatives of stannite in the light of new data. Canadian Mineralogist, 27, 673–88.

Kirkham, N. and Ford, T.D. (1967) *The Ecton Copper Mines, Staffordshire,* 2nd edn, *Peak District Mines Historical Society Special Publication,* No. 1, Peak District Mines Historical Society Sheffield, 26 pp.

Kokelaar, B.P. (1977) The Igneous History of the Rhobell Fawr area, Merioneth, North Wales. Unpublished PhD thesis, University of Wales.

Kokelaar, B.P. (1979) Tremadoc to Llanvirn volcanism on the south side of the Harlech Dome (Rhobell Fawr), North Wales. In *The Caledonides of the British Isles — Reviewed* (eds A.L. Harris, C.H. Holland and B.E. Leake), *Geological Society of London Special Publication*, No. 8, Scottish Academic Press for the Geological Society, Edinburgh, pp. 591–6.

Kokelaar, B.P. (1992) Ordovician marine volcanic and sedimentary record of rifting and volcano-tectonism. *Geological Society of America Bulletin*, 104, 1433–55.

Kokelaar, B.P., Howells, M.F., Bevins, R.E., Roach, R.A. and Dunkley, P.N. (1984) The Ordovician marginal basin in Wales. In *Marginal Basin Geology: Volcanic and Associated Sedimentary and Tectonic Processes in Modern and Ancient Marginal Basins* (eds B.P. Kokelaar and M.F. Howells), *Geological Society of London Special Publication,* No. 16, Blackwell Scientific Publications for the Geological Society, Oxford, pp. 245–69.

Kramm, U. (1976) The coticule rocks (spessartine quartzites) of the Venn-Stavelot Massif, Ardennes, a volcaniclastic metasediment? *Contributions to Mineralogy and Petrology*, 56, 135–55.

Kurr, J.G. von (1858) *Das Mineralreich in Bildern.* Schreiber und Schiff, Stuttgart ['kampylite' figured in table XX. An English translation published as *The Mineral Kingdom* by Edmonston and Douglas, Edinburgh, 1859].

Lamens, J., Geukens, F. and Viaene, W. (1986) Geological setting and genesis of coticules (spessartine metapelites) in the Lower Ordovician of the Stavelot Massif, Belgium. *Journal of the Geological Society of London*, 143, 253–8.

Le Bas, M.J. (1968) Caledonian Igneous Rocks. In *The Geology of the East Midlands* (eds P.C. Sylvester-Bradley and T.D. Ford), Leicester University Press, Leicester, pp. 41–58.

Le Bas, M.J. (1972) Caledonian igneous rocks beneath Central and Eastern England. *Proceedings of the Yorkshire Geological Society*, 39, 71–86.

Leake, R.C., Brown, M.J., Smith, K., Rollin, K.E., Kimbell, G.S., Cameron, D.G., Roberts, P.D. and Beddoe-Stephens, B.W. (1985) Volcano-genic and exhalative mineralisation within Devonian Rocks of the South Hams district of Devon. *Mineral Reconnaissance Programme Report, British Geological Survey,* No. 79.

Leboutillier, N.G., Camm, G.S., Shail, R.K., Bromley, A.V., Jewson, C. and Hoppe, N. (2002) Tourmaline-quartz-cassiterite mineralization of the Land's End Granite at Nanjizal, West Cornwall. *Proceedings of the Ussher Society*, 10, 312–18 Lee, C.W. (1991) Baryte and calcite cements in the 'breccias' of Ogmore-by-Sea, South Wales. *Geology Today*, 7, 133–6.

Leland, J. (1906) *The Itinerary in Wales of John Leland in or about the years 1536–1539.* Extracted from his mss. Imprint London: George Bell & Sons.

Lentin, A.G.L. (1800) Briefe über die Insel Anglesea, vorzuglich über die dasigen Kupferbergwerke und die dazu gehorigen Schmelzwerke und Fabriken, Leipzig.

Leppington, C.M. and Green, D.I. (1998) Antimonian claudetite from Wet Swine Gill, Caldbeck Fells, Cumbria, *England. Journal of the Russell Society*, 7, 36–7.

Lévy, M. (1825) An account of a new mineral. Annals of Philosophy, 9, 140-2.

Lévy, A. (1827) On the Origin of the Crystalline Forms of Haytorite. Philosophical Magazine, 1, 43-6.

Lévy, A. (1837) *Description d'une Collection de Minéraux Formée par M. Henri Heuland et Appartenant a M. Ch. Hampden Turner,* London, 3 volumes and atlas.

Lewis, A. (1990) Underground exploration of the Great Orme Copper Mines. In *Early Mining in the British Isles* (eds P. Crew and S. Crew), *Plas Tan y Bwlch Occasional Paper*, No. 1, Snowdonia National Park Study Centre, Blaenau Ffestiniog, pp. 5–10.

Lewis, W.J. (1967) Lead Mining in Wales, University of Wales Press, Cardiff, 415 pp.

Livingstone, A. (1991) The zinc analogue of ktenasite from Smallcleugh and Brownley Hill mines, Nenthead, Cumbria. *Journal of the Russell Society*, 4, 13–15.

Livingstone, A. (2002) *Minerals of Scotland: Past and Present,* National Museum of Scotland, Edinburgh, 212 pp.

Livingstone, A. and Champness, P.E. (1993) Brianyoungite, a new mineral related to hydrozincite from the north of England ore-field. *Mineralogical Magazine*, 57, 665–70.

Livingstone, A. and Sarp, H. (1984) Macphersonite, a new mineral from Leadhills, Scotland, and Saint-Prix, France — a polymorph of leadhillite and susannite. *Mineralogical Magazine*, 48, 277–82.

Livingstone, A., Bridges, T.F. and Bevins, R.E. (1990) Schulenbergite and namuwite from Smallcleugh Mine, Nenthead, Cumbria. *Journal of the Russell Society*, 3, 23–4.

Loughlin, G.F. (1914) The oxidised zinc ores of the Tintic district, Utah. *Economic Geology*, 9, 1–19.

Lowe, E.E. (1926) *The Igneous Rocks of the Mountsorrel District,* Leicestershire Literary and Philosophical Society Leicester, 49 pp.

Lowry, D., Boyce, A.J., Pattrick, R.A.D., Fallick, A.E. and Stanley, C.J. (1991) A sulphur isotopic investigation of the potential sulphur sources for Lower Palaeozoic-hosted vein mineralization in the English Lake District. *Journal of the Geological Society of London*, 148, 993–1004.

Lynas, B.D.T. (1973) The Cambrian and Ordovician rocks of the Migneint area, North Wales. *Journal of the Geological Society of London*, 129, 481–503.

MacAlister, D.A. (1909) Note on the Association of Cassiterite and Specular Iron in the Lodes of Dartmoor. *Geological Magazine*, 46, 402–9.

MacDonald, R., Gass, K.N., Thorpe, R.S. and Gass, I.G. (1984) Geochemistry and petrogenesis of the Derbyshire Carboniferous *basalts. journal of the Geological Society of London,* 141, 147–59.

MacDonald, G.A. and Merriman, R. (1938) Andalusite in pegmatite from Fresno County, California. *American Mineralogist*, 23, 588–94.

McLean, J., Purvis, 0.W., Williamson, B.J. and Bailey, E.H. (1998) Role for lichen melanins in uranium remediation. *Nature*, 39, 649.

Manning, D.A.C. (1983) Disseminated tin sulphides in the St Austell granite. *Proceedings of the Ussher Society*, 5, 411–16.

Manning, D.A.C. (1985) A comparison of the influence of magmatic water on the form of granite-hosted Sn-W deposits and associated tourmalinisation from Thailand and southwest England. In *High Heat Production (HHP) Granites, Hydrothermal Circulation and Ore Genesis,* Institution of Mining and Metallurgy, London, pp. 203–12.

Manning, D.A.C. (1991) The copper mineralisation of Alderley Edge: new views on a well known viewpoint. *The Amateur Geologist*, 13(2), 50–2.

Manning, D.A.C. and Exley, C.S. (1984) The origins of late-stage rocks in the St Austell granite — a reinterpretation. *Journal of the Geological Society of London*, 141, 581–93.

Manning, D.A.C. and Hill, P.I. (1990) The petrogenetic and metallogenic significance of topaz granites from S.W. England orefield. In *Ore-Bearing Granite Systems, Geological Society of America Special Paper,* No. 246, pp. 51–69.

Manning, W. (1959) The Parys and Mona Mines in Anglesey. In *The Future of Non-Ferrous Mining in Great Britain and Ireland: a Symposium,* Institution of Mining and Metallurgy, London, pp. 313–28.

Marr, J.E. (1892) The Coniston Limestone Series. Geological Magazine, 9, 97-110.

Marr, J.E. (1900) Notes on the geology of the English Lake District. *Proceedings of the Geologists' Association,* 16, 449–83.

Marr, J.E. (1916) The Geology of the Lake District and the Scenery as Influenced by Geological Structure, Cambridge University Press, Cambridge, 220 pp.

Masheder, R. and Rankin, A.H. (1988) Fluid Inclusion Studies on the Ecton Hill Copper Deposits, North Staffordshire. *Mineralogical Magazine*, 52, 473–82.

Mason, J.S. (1992) Wulfenite In the British Isles. Part Two: Wales. UK Journal of Mines and Minerals, 11, 38-41.

Mason, J.S. (1994) A regional paragenesis for the Central Wales Orefield. Unpublished M.Phil. thesis, University of Wales, Aberystwyth.

Mason, J.S. (1997) Regional polyphase and polymetallic vein mineralisation in the Caledonides of the Central Wales Orefield. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 106, B135–43.

Mason, J.S. (1998) Tucekite, a mineral new to Britain, and other rare minerals from the Central Wales Orefield. *UK Journal of Mines and Minerals*, 19, 30–6.

Mason, J.S. (2004) The development of supergene lead mineralisation in Central Wales. *UK Journal of Mines and Minerals*, 24, 35–46.

Mason, J.S. and Green, D.I. (1995) Supergene minerals including exceptional ramsbeckite from Penrhiw Mine, Ystumtuen, Dyfed. *UK Journal of Mines and Minerals*, 15, 21–7.

Mason, J.S. and Green, D.I. (1996) Supergene copper mineralisation in situ at Lodge Park Copper Trial, Dyfed. *UK Journal of Mines and Minerals*, 17, 19–23.

Mason, J.S. and Hughes, S.J.S. (1990) Geology of the Darren District. In *The Darren Mines* (ed. S.J.S. Hughes), *British Mining — Monograph of the Northern Mine Research Society,* No. 40, Northern Mine Research Society, Sheffield, pp. 131–41.

Mason, J.S. and Rust, S.A. (1995) An unusual occurrence of arsenate minerals at Gwaith-yr-Afon mine, Dyfed, Wales. *Journal of the Russell Society*, 5, 109–13.

Mason, J.S., Fitches, W.R. and Bevins, R.E. (1999) Evidence for a pre-tectonic origin for the auriferous vein-type mineralisation in the Dolgellau Gold-belt, North Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 108, B45–52.

Mason, J.S., Bevins, R.E. and Alderton, D.H.M. (2002) Ore mineralogy of the mesothermal gold lodes of the Dolgellau Gold-belt, North Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 111, B203–14.

Maton, W.G. (1797) Observations on the Western Counties of England, J. Easton, Salisbury, Vol. 2.

Matthews, D.W. and Scoon, J.H. (1964) Notes on a new occurrence of stilpnomelane from North Wales. *Mineralogical Magazine*, 33, 1032–7.

Mawe, J. (1802) *The Mineralogy of Derbyshire, with a Description of the Most Interesting Mines in the North of England,* William Phillips, London, 211 pp.

May, V.J. and Hansom, J.D. (2003) *Coastal Geomorphology of Great Britain,* Geological Conservation Review Series, No. 28, Joint Nature Conservation Committee, Peterborough, 737 pp.

Meneisy, M.Y. and Miller, J.A. (1963) A ge-chronological study of the crystalline rocks of Charnwood Forest, England. *Geological Magazine*, 100, 507–23.

Metcalfe, R., Bevins, R.E. and Robinson, D. (1996) Fluid fluxes during low-temperature alteration: implications of multi-style alteration assemblages from the Welsh Borderland, UK. *Geological Journal*, 31, 323–47.

Miller, J.A. and Mohr, P.A. (1964) Potassium-argon measurements on the granites and some associated rocks from SW England. *Geological Journal*, 4, 105–26.

Miller, J.A. and Podmore, J.S. (1961) Age of Mountsorrel Granite. Geological Magazine, 98, 87-8

Miller, O.D.W. (1993) Precious metal mineralisation associated with the Coed-y-Brenin porphyry copper system, North Wales. Unpublished PhD thesis, University of Aberdeen.

Miller, O.D.W, Boyce, A.J., Fallick, A.E. and Rice, C.M. (1991) A stable isotope and fluid inclusion study of mineralisation associated with the Coed-y-Brenin Porphyry Copper system, N. Wales. Paper presented to the Mineral Deposit Studies Group Meeting, Aberdeen.

Miller, O.D.W., Boyce, A.J., Fallick, A.E. and Rice, C.M. (1992) Hydrothermal fluids associated with the Coed-y-Brenin Porphyry Copper system, N. Wales. Paper presented to the Mineral Deposit Studies Group Meeting, Leicester.

Millward, D., Beddoe-Stephens, B. and Young, B. (1999) Pre-Acadian copper mineralisation in the English Lake District. *Geological Magazine*, 136, 159–76.

Millward, D., Johnson, E.W., Beddoe-Stephens, B. and Young, B. (2000) *Geology of the Ambleside District,* Memoir of the British Geological Survey, Sheet 38 (England and Wales), The Stationery Office for the British Geological Survey, London, 228 pp.

Milodowski, A.E. and Zalasiewicz, J.A. (1991) Redistribution of rare earth elements during diagenesis of turbidite/hemipelagite mudrock sequences of Llandovery age from central Wales. In *Developments in Sedimentary Provenance Studies* (eds A.G. Morton, S.P. Todd and P.D. Houghton), *Geological Society of London Special Publication,* No. 57, Geological Society, Bath, pp. 101–24.

Milodowski, A.E., Strong, G.E., Shepherd, T.J., Spiro, B., Kemp, S.J., Hyslop, E.K., Jones, D.G., Leng, M.J., Haslam, H.W, Bradley, A.D., Nicholson, R.A. and Warrington, G. (1999) Diagenesis of the Permo-Triassic rocks. In *The Cheshire Basin: Basin Evolution, Fluid Movement and Mineral Resources in a Permo-Triassic Rift Setting* (eds J.A. Plant, D.G. Jones and H.W. Haslam), British Geological Survey, Keyworth, pp. 125–75.

Mitchell, J.G. (1940) The Borrowdale Volcanic Series of Coniston, Lancashire. *Quarterly Journal of the Geological Society of London*, 96, 301–19.

Mitchell, J.G. and Ineson, P.R. (1975) Potassium-argon ages from the graphite deposits and related rocks of Seathwaite, Cumbria. *Proceedings of the Yorkshire Geological Society*, 40, 413–18.

Mitchell, R.H. and Krouse, H.R. (1971) Isotopic composition of sulphur and lead in galena from the Greenhow-Skyreholme area, Yorkshire, England. *Economic Geology*, 66, 243–51.

Mohr, P.A. (1964a) On the copper-mineralised sandstones of Alderley Edge, England, and of Chercher, Ethiopia, and the problem of their genesis. An essay on red bed copper deposits. *Contributions from the Geophysical Observatory, Faculty of Science, Haile Sellassie I University,* A4, 1–59.

Mohr, P.A. (1964b) Genesis of the Cambrian manganese carbonate rocks of North Wales. *Journal of Sedimentary Petrology*, 34, 819–29. Moles, N.R. (1985) Geology, geochemistry and petrology of the Foss stratiform barite-base metal deposit and adjacent Dairadian metasediments, near Aberfeldy, Scotland. Unpublished PhD thesis, University of Edinburgh.

Moorbath, A. (1962) Lead isotope abundance studies on mineral occurrences in the British Isles and their geological significance. *Philosophical Transactions of the Royal Society of London,* A254, 295–360.

Moore, A.J. (1982) Mineral zonation near the granitic batholiths of south-west and northern England and some geothermal analogues. In *Metallization Associated with Acid Magmatism* (ed. A.M. Evans), Wiley, Chichester, pp. 229–42.

Moore, F. (1977) The occurrence of topaz-rich greisens at St Michael's Mount, Cornwall. *Proceedings of the Ussber Society,* 4, 49–56.

Moore, J.M. and Jackson, N.J. (1977) Structure and mineralization in the Cligga Granite stock, Cornwall. *Journal of the Geological Society of London*, 133, 467–80.

Morrison, T.A. (1975) Goldmining in West Merioneth, Privately Published, Llandyssul, 98 pp.

Moseley, E (1978) *The Geology of the Lake District, Yorkshire Geological Society Occasional Publication,* No. 3, Yorkshire Geological Society, London, 284 pp.

Moser, M.R., Rankin, A.H. and Milledge, H.J. (1992) Hydrocarbon-Bearing Fluid Inclusions Associated with the Windy Knoll Bitumen Deposit, UK. *Geochimica et Cosmochimica Acta*, 56, 155–68.

Mostaghel, M.A. (1985a) Sphalerite mineralogy and trace element geochemistry in the south Pennine Orefield. *Proceedings of the Yorkshire Geological Society*, 45, 207–18.

Mostaghel, M.A. (19856) Classification of the South Pennine Orefield. Mercian Geologist, 10, 27-38.

Mostaghel, M.A. and Ford, T.D. (1986) A sedimentary basin evolution model for ore genesis in the South Pennine Orefield. *Mercian Geologist*, 10, 209–24.

Mount, M. (1985) Geevor mine: a review. In *High Heat Production (HHP) Granites, Hydrothermal Circulation and Ore Genesis,* Institution of Mining and Metallurgy, London, pp. 221–38.

Mountain, B.W. and Wood, S.A. (1988) Chemical controls on the solubility, transport, and deposition of platinum and palladium in hydrothermal solutions: a thermodynamic approach. *Economic Geology*, 83, 492–510.

Mueller, G. (1951) A genetical and geochemical survey of the Derbyshire mineral deposits. Unpublished PhD thesis, University of London.

Mueller, G. (1954) The theory of genesis of oil through hydrothermal alteration of coal type substances within certain Lower Carboniferous strata of the British Isles. In *Proceedings of the 19th International Geological Congress, Algiers*, 1952, International Geological Congress, Rabat, Section 12, pp. 279–328.

Mueller, G. (1969) Discussion of evidences indicating the existence of petroleums of distinct genetical histories. In *Report* of the 22nd International Geological Congress, New Delhi, 1964, R.K. Sundaram, New Delhi, Part 1, pp. 38–63.

Mueller, G. (1970) Indications of high temperature processes in organic geochemistry. In *Advances in Organic Geochemistry: Proceedings of the Third International Congress on Organic Geochemistry, London, 1966* (eds G.D. Hobson and G.C. Speers), Pergamon Press, Oxford, pp. 443–67.

Mullis, J. (1993) Die Entstehung Alpiner klüfte and kluftmineralien. In *Kristall Alpin "Die mineralien der Alpinen Klüfte,* Extralapis No. 5, pp. 17–32.

Murchison, R.I. (1839) The Silurian System in Britain, John Murray, London, 768 pp.

Naden, J. (1988) Gold mineralisation in the Caledonides of the British Isles with reference to the Dolgellau Gold Belt and the Southern Uplands of Scotland. Unpublished PhD thesis, University of Aston.

Nall, W. (1904) The Alston mines. Transactions of the Institute of Mining Engineers, 24, 392-404.

Nature Conservancy Council (1987) Rescue collection of rare Lake District minerals. Earth Science Conservation, 23, 36.

Naylor, H., Turner, P., Vaughan, D.J., Boyce, A.J. and Fallick, A.E. (1989) Genetic studies of red bed mineralization in the Triassic of the Cheshire Basin, northwest England. *Journal of the Geological Society of London,* 146, 685–99.

Neall, T. and Green, D.I. (2001a) Parasymplesite, a mineral new to Britain, from Wet Swine Gill, Caldbeck Fells, Cumbria, England. *Journal of the Russell Society*, 7, 92–3.

Neall, T. and Green, D.I. (2001b) Raspite from Carrock Mine, Caldbeck Fells, Cumbria, England: a first British occurrence. *Journal of the Russell Society*, 7, 91.

Neall, T., Young, B., Hyslop, E.K. and Fakes, R.D. (1993) Namibite from Buckbarrow Beck, Cumbria; the first British occurrence. *Mineralogical Magazine*, 57, 754–5.

Nemcock, M. and Gayer, R. (1996) Modelling palaeostress magnitude and age in extensional basins; a case study from the Mesozoic Bristol Channel Basin, U.K. *Journal of Structural Geology*, 18, 1301–14.

Nemcock, M., Gayer, R. and Miliorizos, M. (1995) Structural analysis of the inverted Bristol Channel Basin: implications for the geometry and timing of the fracture permeability. In *Basin Inversion* (eds J.G. Buchanan and P.G. Buchanan), *Geological Society of London Special Publication*, No. 88, Geological Society, Bath, pp. 355–92.

Nevell, M., Sugden, K., Carrington, P, Brayshay, B., Shimwell, D.W, Johnson, C. and Wild, J.P. (2005) The 'Pot Shaft' hoard: the controlled micro-excavation of a Fourth-century Roman coin hoard. *British Archaeological Reports*, 396, 98–123.

Nicholson, H.A. and Marr, J.E. (1877) On the occurrence of a new fossiliferous horizon in the Ordovician Series of the Lake District. *Geological Magazine*, 4, 339–44.

Nickel, E.H. (1995) Definition of a mineral. The Mineralogical Record, 26, 437-8.

Nickel, E.H. and Mandarino, J.A. (1988) Levinsons rule for nomenclature of rare-earth minerals. *Mineralogical Magazine*, 52, 292.

Nickless, E.F.P., Booth, S.J. and Mosley, P.N. (1976) The celestite resources of the area north-east of Bristol. *Mineral Assessment Report, Institute of Geological Sciences,* No. 25, 83 pp.

Noall, C. (1973) The St Just Mining District, Monograph on Metalliferous Mining History, No. 5, Barton, Truro, 179 pp.

Noel, M., Shaw, R.P. and Ford, T.D. (1984) A palaeomagnetic reversal in early Quaternary sediments in Masson Hill, Matlock, Derbyshire. *Mercian Geologist*, 9, 235–42.

Nooner, D.W., Updegrove, W.S., Flory, D.A., Oro, J. and Mueller, G. (1973) Isotopic and Chemical Data of Bitumens Associated with Hydrothermal Veins from Windy Knoll, Derbyshire, England. *Chemical Geology*, 11, 189–202.

North, F.J. (1916) The minerals of Glamorgan. Transactions of the Cardiff Naturalists' Society, 49, 16–51.

North, F.J. and Howarth, W.E. (1928) On the occurrence of millerite and associated minerals in the Coal Measures of South Wales. *Proceedings of the South Wales Institute of Engineers*, 44, 325–48.

Nutt, M.J.C., Ineson, P.R. and Mitchell, J.G. (1979) The age of mineralization at Parys Mountain, Anglesey. In *The Caledonides of the British Isles — Reviewed* (eds A.L. Harris, C.H. Holland and B.E. Leake), *Geological Society of London Special Publication*, No. 8, Scottish Academic Press for the Geological Society, Edinburgh, pp. 619–27.

O'Brien, C., Plant, J.A., Simpson, P.R. and Tarney, J. (1985) The geochemistry, metasomatism and petrogenesis of the granites of the English Lake District. *Journal of the Geological Society of London*, 142, 1139–58.

Orme, G.R. (1974) Silica in the Visean limestones of Derbyshire, England. *Proceedings of the Yorkshire Geological Society*, 40, 63–104.

Paar, W.H., Roberts, A.C., Criddle, A.J. and Topa, D. (1998) A new mineral, chrisstanleyite, Ag₂Pd₃Se₄, from Hope's Nose, Torquay, Devon, England. *Mineralogical Magazine*, 62, 257–64.

Palache, C., Berman, H. and Frondel, C. (1944) *The System of Mineralogy of James Dwight Dana and Edward Salisbury Dana. Volume I,* 7th edn, John Wiley and Sons, New York.

Palache, C., Berman, H. and Frondel, C. (1951) *The System of Mineralogy of James Dwight Dana and Edward Salisbury Dana. Volume II: Elements, Sulfides, Sulfosalts, Oxides,* 7th edn, Wiley, New York, 834 pp.

Parkinson, D. (1965) Aspects of the Carboniferous stratigraphy of the Castleton–Treak Cliff area of north Derbyshire. *Mercian Geologist*, 1, 161–80.

Parnell, J. (1981) Genesis of the graphite deposit at Seathwaite in Borrowdale, Cumbria. *Geological Magazine*, 119, 511–12.

Parnell, J. (1983) The distribution of hydrocarbon minerals in the Welsh borderlands and adjacent areas. *Geological Journal*, 18, 129–39.

Parnell, J. (1988a) Migration of biogenic hydrocarbons into granites: a review of hydrocarbons in British Plutons. *Marine and Petroleum Geology*, 5, *3*85–96.

Parnell, J. (1988b) Mineralogy of uraniferous hydrocarbons in Carboniferous-hosted mineral deposits, Great Britain. *Uranium*, 4, 197–218.

Parnell, J. and Eakin, P (1989) Thorium-bitumen mineralization in Silurian sandstones, Welsh Borderland. *Mineralogical Magazine*, 53, 111–16.

Parnell, J. and Swainbank, I. (1990) Pb-Pb dating of hydrocarbon migration into a bitumen-bearing ore-deposit, North Wales. *Geology*, 18, 1028–30.

Parnell, J., Robinson, N. and Brassell, S. (1991) Discrimination of bitumen sources in Precambrian and Lower Palaeozoic rocks, southern U.K., by gas chromatography-mass spectrometry. *Chemical Geology*, 90, 1–14.

Pattrick, R.A.D. and Bowell, R.J. (1991) The genesis of the West Shropshire Orefield: evidence from fluid inclusions, sphalerite chemistry and sulphur isotope ratios. *Geological Journal*, 26, 101–15.

Pattrick, R.A.D. and Polya, D.A. (1993) The mineralization and geological evolution of the British Isles. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 1–31.

Pattrick, R.A.D. and Russell, M.J. (1989) Sulphur isotopic investigation of Lower Carboniferous vein deposits of the British Isles. *Mineralium Deposita*, 24, 148–53.

Pauley, J.C. (1990) The Longmyndian Supergroup and related Precambrian sediments of England and Wales. In *Avalonian and Cadomian Geology of the North Atlantic* (eds R.A. Strachan and G.K. Taylor), Mackie, Glasgow, pp. 5–27.

Peacock, J.D. and Taylor, K. (1966) Uraniferous cellophane in the Carboniferous Limestone of Derbyshire and Yorkshire. *Bulletin of the Geological Survey of Great Britain*, 35, 19–32.

Pearce, R. (1878) Note on pitchblende in Cornwall. Transactions of the Royal Geological Society of Cornwall, 9, 103-4.

Pearson, K. and Jeffrey, C.A. (1997) Low-temperature mineralization of the sub-Triassic unconformity surface and alteration of the underlying intrusions of southern Leicestershire, England. *Exploration and Mining Geology*, 6, 139–52.

Pennant, T. (1783) A Tour in Wales, vol. II, London.

Percival, F.G. (1955) Nature and occurrence of iron ore deposits. In *Survey of World Iron Ore Resources: Occurrence, Appraisal and Use,* United Nations, New York, p. 59.

Pering, K.L. (1971) A geochemical evaluation of hydrocarbon characteristics as criteria for the abiogenic origin of naturally occurring organic matter. Unpublished PhD thesis, Stanford University, USA.

Pering, K.L. (1973) Bitumens associated with lead, zinc and fluorite ore minerals in north Derbyshire, England. *Geochimica et Cosmochimica Acta*, 37, 401–7.

Pering, K.I.. and Ponnamperuma, C. (1969) Alicyclic hydrocarbons from an unusual deposit in Derbyshire, England — a study in possible diagenesis. *Geochimica et Cosmochimica Acta*, 33, 528–32.

Perkins, J.W., Gayer, R.A. and Baker, J.W. (1979) *The Glamorgan Heritage Coast — a Guide to its Geology,* 2nd edn, Glamorgan Heritage Coast Joint Management and Advisory Committee, Southerndown, 40 pp.

Petruck, W. (1971) General characters of the deposits. Canadian Mineralogist, 11, 76–107.

Phillips, W (1814) On the veins of Cornwall. Transactions of the Geological Society of London, 2, 110–60

Phillips. W. (1819) An *Elementary Introduction to the Knowledge of Mineralogy,* 2nd edn, Published by the author, London, 301 pp.

Phillips, W. (1823) *An Elementary Introduction to the Knowledge of Mineralogy,* 3rd edn, Published by the author, London, 406 pp.

Phillips, W. (1827) Remarks on the Crystalline Form of Haytorite. Philosophical Magazine, 1, 40-3.

Phillips, W. (1837) *An Elementary Introduction to Mineralogy,* 4th edn (augmented by Robert Allan), Longman, Rees, Orme, Brown, Green and Longman, London, 425 pp.

Phillips, W. (1844) An *Elementary Treatise on Mineralogy,* 5th edn, W.D. Ticknor and Co., Boston, 662 pp.

Phillips, W.J. (1972) Hydraulic fracturing and mineralisation. Journal of the Geological Society of London, 128, 337–59.

Pickin, J. (1974) Dog Mine — Alderley Edge. Sheffield University Speleological Society Journal, 2(3), 29–30.

Pidgeon, R.T. and Aftalion, M. (1978) Cogenetic and inherited zircon U-Pb systems in Palaeozoic granites from Scotland and England. In *Crustal Evolution in Northwestern Britain and Adjacent Areas* (eds D.R. Bowes and B.E. Leake), *Geological Journal Special Issue*, No. 10, Seel House Press, Liverpool, pp. 183–220.

Pigott, C.D. (1962) Soil formation and development on the Carboniferous Limestone of Derbyshire. 1. Parent Materials. *Journal of Ecology*, 50, 145–56.

Pike, J.W. (1866) A description of some Remarkable 'Heaves' or Throws in Penhalls Mine. *Quarterly Journal of the Geological Society of London,* 22, 535–7.

Piper, J.D.A., Atkinson, D., Norris, S. and Thomas, S. (1991) Paleomagnetic study of the Derbyshire lavas and intrusions, central England — definition of Carboniferous apparent polar wander. *Physics of the Earth and Planetary Interiors*, 69, 37–55.

Plant, J.A. and Jones, D.G. (eds) (1989) *Metallogenic Models and Exploration Criteria for Buried Carbonate-Hosted Ore Deposits — a Multidisciplinary Study in Eastern England,* British Geological Survey and Institution of Mining and Mineralogy, Keyworth and London, 161 pp.

Plant, S. and Evans, D. (2005). Carbonate-fluorapatite from the Westphalian Coal Measures of South Wales, U.K. *Journal of the Russell Society*, 8, 98–101.

Plant, S.P. and Jones, I.E. (1995) Minerals of Machen Quarry; Mid Glamorgan, Wales. *Journal of the Russell Society*, 6, 31–6.

Plant, S.P. and Jones, I.E. (2001) Wavellite and variscite on Gower, Swansea, South Wales. *Journal of the Russell Society*, 7, 79–81.

Plant, J.A., Ball, D.F., Bradley, A.D., Chadwick, R.A., Evans, D.J., Jones, D.G., Kirby, G.A., Milodowski, A.E., Nicholson, R.A., Shepherd, T.J., Smith, N.J.P., Warrington, G. and Wilson, A.A. (1999a) Resources of the basin: base metals, industrial mineral, hydrocarbons and groundwater. In *The Cheshire Basin: Basin Evolution, Fluid Movement and Mineral Resources in a Permo-Triassic Rift Setting* (eds J.A. Plant, D.G. Jones and H.W. Haslam), British Geological Survey Keyworth, pp. 210–39.

Plant, J.A., Jones, D.G. and Haslam, H.W. (eds) (1999b) *The Cheshire Basin: Basin Evolution, Fluid Movement and Mineral Resources in a Permo-Thiassic Rift Setting,* British Geological Survey, Keyworth, 263 pp.

Platten, I.M. and Dominy, S.C. (1999) A reevaluation of quartz vein history in the Dolgellau Gold-belt, North Wales, U.K. *Geological Journal*, 34, 369–91.

Pluth, J.J., Steele, I.M., Kampt A.R. and Green, D.I. (2005) Redgillite, Cu₆(OH)₁₀(SO₄).H₂O, a new mineral from Caldbeck Fells, Cumbria, England: description and crystal structure. *Mineralogical Magazine*, 69, 973–80.

Pockley, R.P.C. (1964) Four new uranium lead ages from Cornwall. *Mineralogical Magazine*, 33, 1081–92.

Pocock, R.W., Whitehead, T.H., Wedd, C.B. and Robertson, T. (with contributions by Wray, D.A., Stubblefield, C.J., Cantrill, T.C. and Davies, W.M.) (1938) *Shrewsbury District Including the Hanwood Coalfield,* Memoir of the Geological Survey of Great Britain, Sheet 152 (England and Wales), HMSO, London, 297 pp.

Pointon, C.R. (1979) Palaeozoic volcanogenic mineral deposits at Parys Mountain, Avoca and SE Canada — a comparative study. Unpublished PhD thesis, University of Aston.

Pointon, C.R. and Ixer, R.A. (1980) Parys Mountain mineral deposit, Anglesey, Wales: geology and ore mineralogy. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 89, B143–55.

Ponnamperuma, C. and Pering, K.L. (1966) Possible biogenic origin of some naturally occurring hydrocarbons. *Nature*, 209, 979–82.

Porter, L. (1970) Ecton Hill Part II — Underground. Bulletin of the Peak District Mines Historical Society, 4, 195–216.

Postlethwaite, J. (1913) Mines and Mining in the Lake District, 3rd edn, W.H. Moss and sons, Whitehaven, 164 pp.

Powell, T., Salmon, S., Clark, A.H. and Shail, R.K. (1999a) Emplacement styles within the Land's End granite West Cornwall. *Proceedings of the Ussher Society*, 9, 333–9.

Powell, T., Salmon, S., Clark, A.H. and Shail, R.K. (1999b) Formation and emplacement of the Land's End Pluton. In *The Origin of Granites and Related Rocks: Fourth Hutton Symposium Abstracts, Clermont-Ferrand, France, September* 20–25, 1999 (ed. B. Barbarin), *Documents du BRGM*, No. 290, BRGM, Orleans, p. 219.

Power, M.R., Alexander, A.C., Shail, R.R. and Scott, P.W. (1996) A re-interpretation of the internal structure of the Lizard Complex ophiolite, South Cornwall. *Proceedings of the Ussher Society*, 9, 63–7.

Pratt, W.T, Woodhall, D.G. and Howells, M.F. (1995) *Geology of the Country Around Cadair Idris,* Memoir of the British Geological Survey, Sheet 149 (England and Wales), HMSO for the British Geological Survey, London, 111 pp.

Pryce, W. (1778) *Mineralogia Cornubiensis: a Treatise on Minerals, Mines and Mining,* Printed by the author, London, 331 pp.

Quirk, D.G. (1987) Structure and genesis of the South Pennine Orefield. Unpublished PhD thesis, University of Leicester.

Quirk, D.G. (1988) Structure and genesis of the South Pennine Orefield. *Journal of the Open University Geological Society, Conference Edition*, 9, 11–14.

Radke, B.H. and Mathis, R.L. (1980) On the formation and occurrence of saddle dolomite. *Journal of Sedimentary Petrology*, 50, 1149–68.

Raistrick, A. (1927) Lead mining and smelting in West Yorkshire. *Transactions of the Newcomen Society*, 7, 81–97.

Raistrick, A. (1936) The copper deposits of Middleton Tyas, N. Yorkshire. *Naturalist* (for 1936), May 1, 111–15.

Raistrick, A. (1938a) Mineral deposits in the Settle–Malham district, Yorkshire. Naturalist, 975, 119–25.

Raistrick, A. (1938b) The mineral deposits. In *Geology of the Country Around Harrogate* (ed. R.G.S. Hudson), *Proceedings of the Geologists' Association*, 26, 343–9.

Raistrick, A. (1954) The calamine mines, Malham, Yorkshire. *Proceedings of the University of Durham Philosophical Society*, 11, 125–30.

Raistrick, A. (1973) *Lead Mining in the Mid-Pennines, Monograph of Metalliferous Mining History,* No. 4, Bradford Barton, Truro, 172 pp.

Raistrick, A. (1975) *The Lead Industry of Swaledale and Wensleydale,* Moorland Publishing Co., Buxton, 2 volumes, 240 pp.

Raistrick, A. (1983) Mines and Miners on Malham Moor, George Kelsall, Littleborough, 42 pp.

Raistrick, A. and Jennings, B. (1965) A History of Lead Mining in the Pennines, Longmans, London, 347 pp.

Raistrick, A. and Roberts, A. (1990) Life and Work of the Northern Lead Miner, Alan Sutton, Stroud, 115 pp.

Ramsay, A.C. (1866) *The Geology of North Wales,* Memoir of the Geological Survey of Great Britain, Vol. 3, HMSO, London, 381 pp.

Ramsay, A.C. (1881) *The Geology of North Wales,* 2nd edn, Memoir of the Geological Survey of Great Britain, Vol. 3, HMSO, London, 611 pp.

Rankin, A.H. and Criddle, A.J. (1985) Mineralizing fluids and metastable low-temperature inclusion brines at Llanharry iron deposit, South Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 94, B126–32.

Rashleigh, P. (1797) Specimens of British Minerals Selected from the Cabinet of Philip Rashleigh. Part 1, W Bulmer and Co., London.

Rastall, R.H. (1942) The ore deposits of the Skiddaw district. *Proceedings of the Yorkshire Geological Society*, 24, 329–43.

Raybould, J.G. (1973) Studies of the variations in paragenetic sequence and zoning in the mineral veins of Cardiganshire and Montgomeryshire. Unpublished PhD thesis, University of Wales, Aberystwyth.

Raybould, J.G. (1974) Ore textures, paragenesis and zoning in the lead-zinc veins of mid-Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 83, B112–19.

Rayner, D.H. and Hemmingway J.E. (1974) *The Geology and Mineral Resources of Yorkshire, Yorkshire Geological Society Occasional Publication,* No. 2, Yorkshire Geological Society, Leeds, 405 pp.

Read, D., Cooper, D.C. and McArthur, J.M. (1987) The composition and distribution of nodular monazite in the Lower Palaeozoic rocks of Great Britain. *Mineralogical Magazine*, 51, 271–80.

Read, H.H. (1961) Aspects of Caledonian magma-tism in Britain. *Liverpool and Manchester Geological Journal*, 2, 653–83.

Readwin, T.A. (1888) Gold in Wales, London, 12 pp.

Reedman, A.J., Colman, T.B., Campbell, S.D.G. and Howells, M.F. (1985) Volcanogenic mineralization related to the Snowdon Volcanic Group (Ordovician), Gwynedd, North Wales. *Journal of the Geological Society of London*, 142, 875–88.

Reid, C. (1912) *The Geology of Dartmoor,* Memoir of the Geological Survey of Great Britain, Sheet 338 (England and Wales), HMSO, London, 102 pp.

Reid, C. and Flett, J.S. (1907) *The Geology of the Lands End District,* Memoir of the Geological Survey of Great Britain, Sheets 351 and 358 (England and Wales), HMSO, London, 158 pp.

Rice, C.M. (1993) Mineralization associated with Caledonian intrusive activity. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 102–86.

Rice, R. and Sharp, G.J. (1976) Copper mineralization in the forest of Coed-y-Brenin, North Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 85, B1–13.

Rieuwerts, J.H. (1982) A technological history of the drainage of the Derbyshire lead mines. Unpublished PhD thesis, University of Leicester.

Roberts, A.C., Paar, W.H., Cooper, M.A., Topa, D., Criddle, A.J. and Jedwab, J. (2002) Verbeekite, monoclinic PdSe₂, a new mineral from the Musonoi Cu-Co-Mn-U mine, near Kolwezi, Shaba Province, Democratic Republic of Congo. *Mineralogical Magazine*, 66, 173–9.

Roberts, B. (1979) The Geology of Snowdonia and Llyn: an Outline and Field Guide, Adam Hilger, Bristol, 183 pp.

Roberts, B. (1981) Low grade and very low grade regional Ordovician metabasic rocks of Llyn and Snowdonia, Gwynedd, North Wales. *Geological Magazine*, 118, 189–200.

Roberts, B. and Merriman, R.J. (1985) The distinction between Caledonian burial and regional metamorphism in metapelites from North Wales: an analysis of isocryst patterns. *Journal of the Geological Society of London*, 142, 615–24.

Roberts, D.E. (1983) Metasomatism and the formation of greisen in Grainsgill, Cumbria, England. *Geological Journal*, 18, 43–52.

Roberts, W.L., Campbell, T.J. and Rapp, G.R. (1990) *Encyclopedia of Minerals,* 2nd edn, Van Nostrand Reinhold, New York, 979 pp.

Robertson, I.M.D. and Eggleton, R.A. (1991) Weathering of granitic muscovite to kaolinite and halloysite and of plagioclase-derived kaolinite to halloysite. *Clays and Clay Minerals*, 39, 113–26.

Robertson, T. and Dines, H.G. (1929) The South Terras radium deposit, Cornwall. *Mining Magazine*, 12, 147–53.

Robey, J.A. and Porter, L. (1970) The Copper & Lead Mines of Mixon Area, Staffordshire. *Bulletin of the Peak District Mines Historical Society*, 4, 256–80.

Robey, J.A. and Porter, L. (1972) *The Copper and Lead Mines of Ecton Hill, Staffordshire,* Moorland Publishing Co. and Peak District Mines Historical Society Leek, 92 pp.

Robinson, D. (1970) Metamorphic rocks. In *Geology of Durham County*, 2nd edn (compiled by G.A.L. Johnson, ed. G. Hickling), *Transactions of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne*, No. 41, Printed for the Society by W.L. Large, Newcastle-upon-Tyne, pp. 119–23.

Robinson, D. and Bevins, R.E. (1986) Incipient metamorphism in the Lower Palaeozoic marginal basin of Wales. *Journal of Metamorphic Geology*, 4, 101–13.

Robinson, N., Eglinton, G., Brassell, S.C., Gowar, A.P. and Parnell, J. (1986) Hydrocarbon compositions of bitumens associated with igneous intrusions and hydrothermal deposits in Britain. *Organic Geochemistry*, 10, 145–52.

Rogers, P.J. (1977) Fluid inclusion studies in fluorite from the Derbyshire orefield. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 86, B128–32.

Rohl, B. (1995) Application of lead isotope analysis to Bronze Age metalwork from England and Wales. Unpublished D.Phil. thesis, Oxford University.

Roscoe, H.E. (1868) Researches on vanadium. *Philosophical Transactions of the Royal Society of London*, 158, 1–27.

Roscoe, H.E. (1876) On two new vanadium minerals. Proceedings of the Royal Society of London, 25, 109–112.

Rose, R.L. (1957) Andalusite- and corundum-bearing pegmatites in Yosemite National Park, California. *American Mineralogist,* 42, 635–47.

Rose, W.C.C. and Dunham, K.C. (1977) *Geology and Hematite Deposits of South Cumbria,* Memoir of the Geological Survey of Great Britain, Sheet 58 and southern part of Sheet 48 (England and Wales), HMSO, London, 170 pp.

Rowe, J. and Burley, S.D. (1997) Faulting and porosity modification in the Sherwood Sandstone at Alderley Edge, northeastern Cheshire: an exhumed example of fault-related diagenesis. In *Petroleum Geology of the Irish Sea and Adjacent Areas* (eds N.S. Meadows, S.P. Trueblood, M. Hardman and G. Cowan), *Geological Society of London Special Publication*, No. 124, Geological Society, Bath, pp. 325–52.

Rowe, J., Burley, S., Gawthorpe, R., Cowan, G. and Hardman, M. (1993) Palaeo-fluid flow in the East Irish Sea Basin and its margins. In *Geofluids* '93 (eds J. Parnell, A.H. Ruffell and N.R. Moles), *Contributions to an International Conference on Fluid Evolution, Migration and Interaction in Rocks, Held at Torquay, May 4–7 1993,* British Gas, London, pp. 358–62.

Rowe, J., Turner, P. and Bailey, S. (1998) Palaeomagnetic dating of the west Cumbrian hematite deposits and implications for their mode of formation. *Proceedings of the Yorkshire Geological Society*, 52, 59–71.

Rowlands, J. (1981) Copper Mountain, Anglesey Antiquarian Society, Llangefni, 200 pp.

Rudler, F.W. (1905) A Handbook to a Collection of the Minerals of the British Islands Mostly Selected from the Ludlam Collection in the Museum of Practical Geology, Jermyn Street, London, HMSO, London, 241 pp.

Rumsey, M., and Savage, M. (2004) The first British occurrence of Parkerite at North Devon United Mine, Peter Tavy, Devon. *UK Journal of Mines and Minerals*, 25, 19–22.

Rundle, C.C. (1979) Ordovician intrusions in the English Lake District. *Journal of the Geological Society of London*, 136, 29–38.

Rundle, C.C. (1981) The significance of isotopic dates from the English Lake District for the Ordovician-Silurian time-scale. *Journal of the Geological Society of London*, 138, 569–72.

Russell, A. (1911) An occurrence of the barium-feldspar celsian in North Wales. Nature, 86, 180.

Russell, A. (1913) Notes on the occurrence of bertrandite at some new localities in Cornwall. *Mineralogical Magazine*, 17, 273–85.

Russell, A. (1925) A notice of the occurrence of native arsenic in Cornwall; bismuthinite at Shap, Westmorland; and of smaltite and niccolite at Coniston, Lancashire. *Mineralogical Magazine*, 20, 299–304.

Russell, A. (1927) Notice of an occurrence of niccolite and ullmannite at Settlingstones Mine, Fourstones, Northumberland. *Mineralogical Magazine*, 21, 383–7.

Russell, A. (1929) On the occurrence of native gold at Hope's Nose, Torquay, Devonshire. *Mineralogical Magazine,* 22, 159–62.

Russell, A. (1944) Notes on some minerals either new or rare to Britain. *Mineralogical Magazine*, 27, 1–10.

Russell, A. (1946) On rhodonite and tephroite from Treburland manganese mine, Altarnun, Cornwall: and on rhodonite from other localities in Cornwall and Devonshire. *Mineralogical Magazine*, 27, 221–35.

Russell, A. (1949) Manuscript notes on Antimony Mines (of the U.K.). Unpublished manuscript in British Museum (Natural History).

Russell, M.J. (1972) North-south geofractures in Scotland and Ireland. Scottish Journal of Geology, 8, 75-84.

Russell, M.J. (1976) Incipient plate separation and possible related mineralisation in lands bordering the North Atlantic. In *Metallogeny and Plate Tectonics* (ed. D.F. Strong), *Geological Association of Canada Special Paper*, No. 14, Geological Association of Canada, Ontario, pp. 339–49.

Russell, M.J. (1983) Major sediment-hosted exhalative zinc+ lead deposits: Formation from hydrothermal convection cells that deepen during crustal extension. In *Sediment-Hosted Stratiform Lead-Zinc Deposits* (ed. D.F. Sangster), *Mineralogical Association of Canada Short Course Handbook,* No. 8, Mineralogical Association of Canada, Toronto, pp. 251–82.

Russell, M.J. and Smith, F.W. (1979) Plate separation, alkali magmatism and fluorite mineralisation in northern and eastern England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 87, B168–71.

Rust, S.A. (1990a) Mattheddleite from the Darren Mine, Dyfed, Wales. UK Journal of Mines and Minerals, 8, 47-8.

Rust, S.A. (1990b) Susannite and sulphatian schmiederite from Llechwedd Helyg Mine, Tir-y-Mynach, Dyfed, Wales. *UK Journal of Mines and Minerals*, 8, 48.

Rust, S.A. (1991) Ktenasite, from Smallcleugh Mine, Nenthead, Cumbria, the first British occurrence. *UK Journal of Mines and Minerals*, 9, 5.

Rust, S.A. (1992) Ramsbeckite, the first three British occurrences. UK Journal of Mines and Minerals, 11, 24-5.

Rust, S.A. (1994) Chenite from Llechweddhelyg mine, Tir-y-Mynach, Dyfed, Wales. *UK Journal of Mines and Minerals,* 14, 9.

Rust, S.A. (1995a) Supergene minerals from Waterbank Mine, Ecton, Staffordshire. *UK Journal of Mines and Minerals,* 15, 30–5.

Rust, S.A. (1995b) Laurionite from Nantycagl mine, Ceulanymaesmawr, Dyfed, Wales. UK Journal of Mines and Minerals, 5, 19.

Rust, S.A. and Green, D.I. (2005) Olsacherite, the first British occurrence, from Waterbank Mine, Ecton, Staffordshire. *UK Journal of Mines and Minerals*, 25, 33–4.

Rust, S.A. and Mason, J.S. (1988) The minerals of Esgair-Hir mine, Dyfed, Wales. *UK Journal of Mines and Minerals*, 5, 35–43.

Rust, S.A., Bell, R. and Green, D.I. (2004) The occurrence of bechererite in the British Isles. *UK Journal of Mines and Minerals*, 24, 37–8.

Ryback, G. and Francis, J.G. (2001) Rosiaite from Bwlch Mine, Deganwy, Gwynedd, Wales. *Journal of the Russell Society*, 7, *8*8.

Ryback, G. and Tandy, P.C. (1992) 8th supplementary list of British Isles Minerals (English). *Mineralogical Magazine*, 56, 261–75.

Ryback, G., Clark, A.M. and Stanley, C.J. (1998) Re-examination of the A.W.G. Kingsbury collection of British minerals at the Natural History Museum, London. *The Geological Curator*, 6(9), 317–22.

Ryback, G., Hart, A.D. and Stanley, C.J. (2001) A.W.G. Kingsbury's specimens of British minerals. Part I. Some falsified localities. *Journal of the Russell Society*, 7, 51–70.

Sams, M.S. and Thomas-Betts, A. (1988) Three dimensional numerical modelling of the conductive heat flow in south-west England. *Geophysical Journal of the Royal Astronomical Society*, 92, 323–34.

Sarjeant, W.A.S. (1956) The Mineralogy of Ecton Hill. Journal of the University of Sheffield Geological Society, 2, 87–92.

Sarjeant, W.A.S. (1967) Fibrous chlorites in the volcanic rocks of Derbyshire. Mercian Geologist, 2, 85–95.

Sawkins, F.J. (1966a) Ore genesis in the northern Pennine Orefield in the light of fluid inclusion studies. *Economic Geology*, 61, 385–99.

Sawkins, F.J. (1966b) Preliminary fluid inclusion studies on the mineralisation associated with the Hercynian granites of Southwest England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 87, B109–12.

Sawkins, F.J. (1976) Metal deposits related to intracontinental hotspot and rifting environments. *Journal of Geology*, 84, 653–71.

Scherba, G.N. (1970) Greisens. International Geology Review, 12, 114–50; 239–59.

Schneider, F. (1993) Modelling of zone alteration associated with W/Sn ore deposits in SW England. In *Geofluids '93* (eds J. Parnell, A.H. Ruffell and N.R. Moles), *Contributions to an International Conference on Fluid Evolution, Migration and Interaction in Rocks, Held at Torquay, May 4–7 1993,* British Gas, London, pp. 280–3.

Scott, R. (1992) Alexandra Quarry. In *Caledonian Structures in Britain South of the Midland Valley* (ed. J.E. Treagus), Geological Conservation Review Series, No. 3, Chapman and Hall, London, pp. 104–8.

Scrivener, R.C. (2006) Cornubian granites and mineralization of SW England. In *The Geology of England and Wales* (eds P.J. Brenchley and P.F. Rawson), 2nd edn, Geological Society of London, London, pp. 257–67.

Scrivener, R.C., Cooper, B.V. and George, M.C. (1987) Mineralogy and paragenesis of the Haytor iron ore deposit. *Proceedings of the Ussher Society*, 6, *5*58.

Scrivener, R.C., Cooper, B.V., George, M.C. and Shepherd, T.J. (1982) Gold-bearing carbonate veins in the Middle Devonian Limestone of Hope's Nose, Torquay, *Proceedings of the Ussher Society*, 5, 393.

Scrivener, R.C., Milodowski, A.E., Fortey, N.J. and Cooper, B.V. (2001) Manganese mineralisation in the Early Carboniferous rocks of Devon. *Abstracts, Ussher Society Conference, Sidmouth, Devon, January 2001,* 248.

Scrivenor, J.B. (1914) The topaz-bearing rocks of Gunong Bakau (Federated Malay states). *Quarterly Journal of the Geological Society of London*, 70, 363–81.

Scrutton, C.T. (ed.) (1978) A Field Guide to Selected Areas of the Devonian of South-west England, International Symposium on the Devonian System (PA.D.S. 1978), Palaeontological Association, London, 73 pp.

Seager, A.F. (1967) Mineralisation and Para-genesis at Dean Quarry. *Transactions of the Royal Geological Society of Cornwall*, 20, 97–113.

Seagar, A.F. (1969) Zeolites and other minerals from Dean quarry. *Mineralogical Magazine*, 37, 147-8.

Selwood, E.B., Durrance, M. and Bristow, C.M. (1998). *The Geology of Cornwall,* University of Exeter Press, Exeter, 298 pp.

Selwood, E.B., Thomas, J.M., Williams, B.J., Clayton, R.E., Durning, B., Smith, O. and Warr, L.N. (1998) *Geology of the Country Around Trevose Head and Camelford,* Memoir of the British Geological Survey, Sheets 335 and 336 (England and Wales), The Stationery Office for the British Geological Survey, London, 106 pp.

Shackleton, E.H. (1966) Lakeland Geology, Dalesman Publishing Co., Clapham, 128 pp.

Shaw, W.T. (1970) Mining in the Lake Counties, Dalesman Publishing Co., Clapham, 128 pp.

Shepherd, T.J. (1973) Geochemical evidence for basement control of the West Cumberland haematite mineralization. Unpublished PhD thesis, University of Durham.

Shepherd, T.J. (1979) Microthermometric analysis of quartz-sulphide veins, Cumpston Hill, Yorkshire. *Report of the Institute of Geological Sciences Isotope Geology Unit,* No. 79/3.

Shepherd, T.J. and Allen, P.M. (1985) Metallogenesis in the Harlech Dome, North Wales: a fluid inclusion interpretation. *Mineralium Deposita*, 20, 159–68.

Shepherd, T.J. and Bottrell, S.H. (1993) Dolgellau Gold-belt, Harlech district, North Wales. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 187–207.

Shepherd, T.J. and Goldring, D.C. (1993) Cumbrian hematite deposits, North-West England. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 419–45.

Shepherd, T.J. and Scrivener R.C. (1987) Role of basinal brines in the genesis of polymetallic vein deposits, Kit Hill-Gunnislake area, S.W. England. *Proceedings of the Ussher Society*, 6, *4*91–7.

Shepherd, T.J. and Waters, P (1984) Fluid inclusion analysis studies of Carrock Fell tungsten deposit, north of England: inplications for regional application. *Mineralium Deposita*, 19, 304–14.

Shepherd, T.J., Beckinsale, R.D., Rundle, C.C. and Durham, J. (1976) Genesis of the Carrock Fell Tungsten deposits, Cumbria: fluid inclusion and isotopic study. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 85, 63–74.

Sherlock, R.L. (1919) The geology and genesis of the Trefriw pyrites deposit. *Quarterly Journal of the Geological Society of London,* 74, 106–15.

Sibly, T.F. and Lloyd, W. (1927) *Iron Ores: the Haematites of the Forest of Dean and South Wales,* 2nd edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 10, HMSO, London, 101 pp.

Simpson, B. (1934) The petrology of the Eskdale (Cumberland) Granite. *Proceedings of the Geologists' Association,* 45, 17–34.

Simpson, I.M., and Broadhurst, F.M. (1969) A Boulder Bed at Treak Cliff, North Derbyshire. *Proceedings of the Yorkshire Geological Society*, 37, 141–51.

Simpson, P.R., Brown, G.C., Plant, J. and Ostle, D. (1979) Uranium mineralisation and granite magmatism in the British Isles. *Philosophical Transactions of the Royal Society of London*, A291, 385–412.

Sivaprakash, C. (1977) Geochemistry of some sulphides and sulphosalts from Parys Mountain, Anglesey. Unpublished M.Phil. thesis, University of Aston.

Small, A. (1977) Mineralisation of the Stainmore Depression and northern part of the Askrigg Block. Unpublished PhD thesis, University of Durham.

Small, A.T. (1978) Zonation of Pb-Zn-Cu-F-Ba mineralisation in part of the North Yorkshire Pennines. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 87, B9–14.

Small, A.T. (1982) New data on tetrahedrite, tenantite, chalcopyrite and puromorphite from the Cumbria and North Yorkshire Pennines. *Proceedings of the Yorkshire Geological Society*, 44, 153–8.

Smith, B. (1921) *Lead and Zinc Ores in the Carboniferous Rocks of North Wales,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 19, HMSO, London, 162 pp.

Smith, B. (1922) *Lead and Zinc Ores in the Pre-Carboniferous Rocks of West Shropshire and North Wales. Part 1: West Shropshire,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 23, HMSO, London, 36 pp.

Smith, B. (1924) *Iron Ores: Haematites of West Cumberland, Lancashire and the Lake District,* 2nd edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 8, HMSO, London, 236 pp.

Smith, F.W. (1973) Fluid inclusion studies on fluorite from the North Wales ore field. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 82, B174–6.

Smith, F.W. and Phillips, R. (1974) Temperature gradients and ore deposition in the north Pennine orefleld. *Fortschritte der Mineralogie*, 52, 491–4.

Smith, G.F. (1919) Semseyite from Dumfriesshire. *Mineralogical Magazine*, 18, 354–9.

Smith, M. (1987) The Tremadoc 'Thrust' Zone in southern central Snowdonia. *Geological Journal*, 22, 119–29.

Smith, M. (1988) The tectonic evolution of the Cambrian and Ordovician rocks in Southern Central Snowdonia. Unpublished PhD thesis, University of Wales, Aberystwyth.

Smith, M., Rushton, A.W.A. and Howells, M.F. (1995) New litho- and biostratigraphic evidence for a Mid-Ordovician hiatus in southern central Snowdonia, North Wales. *Geological Journal*, 30, 145–56.

Smith, M.E. (1982) The mineralogy of Fall Hill quarry, Ashover, Derbyshire. Journal of the Russell Society, 1, 26–32.

Smith, M.L. and Frondel, C. (1968) The related layered minerals ganophyllite, bannisterite, and stilpnomelane. *Mineralogical Magazine*, 36, 893–913.

Smith, N.J.P. (1987) The deep geology of Central England: the prospectivity of the Palaeozoic rocks. In *Petroleum Geology of Northwest Europe* (eds J. Brooks and J.W. Glennie), Graham and Trotman, London, pp. 217–24.

Smith, R.T., Cooper, D.C. and Bland, D.J. (1994) The occurrence and economic potential of nodular monazite in south-central Wales. *British Geological Survey Technical Report, WF /94/1.*

Smith, S. (1923) *Lead and Zinc Ores of Northumberland and Alston Moor,* Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 25, HMSO, London, 110 pp.

Smyth, W.W (1846) *Note on the Gogofau, or Ogofau, Mine near Pumsant, Carmarthenshire,* Memoir of the Geological Survey of Great Britain and the Museum of Practical Geology in London, Vol. 1, HMSO, London, 480–4.

Smyth, W.W, Reeks, T. and Rudler, F.W. (1864) A Catalogue of the Mineral Collections in the Museum of Practical Geology, with Introductory and Explanatory Remarks, HMSO, London, 190 pp.

Snowball, G.T. (1952) The Leicestershire intrusions. Leicester Museum and Art Gallery Bulletin, 3rd Series, 1, 2–7.

Solomon, M., Rafter, T.A. and Dunham, K.C. (1971) Sulphur and oxygen isotope studies in the northern Pennines in relation to ore genesis. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 80, B259–76; Discussion.

Soper, N.J., Webb, B.C. and Woodcock, N.H. (1987) Late Caledonian (Acadian) transpression in north-west England: timing, geometry and geotectonic significance. *Proceedings of the Yorkshire Geological Society,* 46, 175–92.

Southwood, M.J. (1982) The geological setting of the sulphide deposits at Morfa Du, Parys Mountain, Anglesey. Unpublished PhD thesis, University of Wales.

Southwood, M.J. (1984) Basaltic lavas at Parys Mountain, Anglesey: trace-element geochemistry, tectonic setting and exploration implications. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 93, B51–4.

Southwood, M.J. and Bevins R.E. (1995) Parys Mountain — the type locality for anglesite. *UK Journal of Mines and Minerals*, 15, 11–17.

Sowerby, J. (1806) *British Mineralogy: or Coloured Figures Intended to Elucidate the Mineralogy of Great Britain,* Vol. 2, R. Taylor and Co., London

Sowerby, J. (1809) *British Mineralogy: or Coloured Figures Intended to Elucidate the Mineralogy of Great Britain,* Vol. 3, R. Taylor and Co., London.

Sowerby, J. (1811) A Short Catalogue of British Minerals, According to a New Arrangement, London.

Sowerby, J. (1817) *British Mineralogy: or Coloured Figures Intended to Elucidate the Mineralogy of Great Britain,* Vol. 5, R. Taylor and Co., London

Spencer, U. and Mountain, E.D. (1923) New lead-copper minerals from the Mendip Hills (Somerset). *Mineralogical Magazine*, 20, 67–92.

Stanier, P. (1998) *Mines of Cornwall and Devon — an Historic Photographic Record,* Twelveheads Press, Truro, 107 pp.

Stanley, C.J. (1979) Mineralogical studies of copper, lead, zinc and cobalt mineralization in the English Lake District. Unpublished PhD thesis, University of Aston.

Stanley, C.J. and Criddle, A.J. (1979) Mineralization at Seathwaite Tarn near Coniston, English Lake District: The first occurrence of wittichenite in Great Britain. *Mineralogical Magazine*, 43, 103–7.

Stanley, C.J. and Vaughan, D.J. (1980) Interpretive studies of copper mineralization to the south of Keswick, England. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 89, B25–30.

Stanley, C.J. and Vaughan, D.J. (1981) Native antimony and boumonite intergrowths in galena from the English Lake District. *Mineralogical Magazine*, 44, 257–60.

Stanley, C.J. and Vaughan, D.J. (1982a) Copper, lead, zinc and cobalt mineralisation in the English Lake District: classification, conditions of formation and genesis. *Journal of the Geological Society of London*, 139, 569–79.

Stanley, C.J. and Vaughan, D.J. (1982b) Mineralization in the Bonser Vein, Coniston, English Lake District; mineral assemblages, paragenesis and formation conditions. *Mineralogical Magazine*, 46, 343–50.

Stanley, C.J., Criddle, A.J. and Lloyd, D. (1990a) Precious and base metal selenide mineralisation at Hope's Nose, Torquay, Devon. *Mineralogical Magazine*, 54, 485–93.

Stanley, C.J., Halls, C., Camm, G.S. and James, J (1990b) Gold-antimony mineralisation at Loddiswell, Devon, UK. *Terra Nova*, 2, 224–31.

Stanton, W.I. (1982) Further field evidence of the age and origin of the lead-zinc-silica mineralisation of the Mendip region. *Proceedings of the Bristol Naturalists' Society*, 41, 25–34.

Stanton, W.I. (1991) The habitat and origin of lead ore in Grebe Swallet mine, Charterhouse on Mendip, Somerset. *Proceedings of the University of Bristol Speleological Society*, 19, 43–65.

Starkey, R.E. (1984) Phosgenite from Clevedon, Avon. Proceedings of the Bristol Naturalists' Society, 44, 13–14.

Starkey, R.E. (1986) A new British locality for beudantite: Clevedon, Avon. Journal of the Russell Society, 1, 125-6.

Starkey, R.E. and Robinson, G.W. (1992) Famous mineral localities: Prenteg, Tremadog, Gwynedd, Wales. *The Mineralogical Record*, 23, 391–9.

Starkey, R.E., Hubbard, N. and Bayley, M.P. (1991) Mineralisation at Hendre Quarry, Glyn Ceiriog, Clwyd, Wales. *UK Journal of Mines and Minerals*, 10, 48–51.

Starkey, R.E., Hubbard, N. and Young, B. (1994) Barytocalcite and witherite from Rorrington Mine, Chirbury, Salop, England. *Journal of the Russell Society*, 5, 118–19.

Steed, G.M., Annels, A.E., Shrestha, P.L. and Tater, P.S. (1976) Geochemical and biochemical prospecting in the area of the Ogofau gold mines, Dyfed, Wales. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 85, B109–17.

Stephenson, D., Bevins, R.E., Millward, D., Highton, A.J., Parsons, I., Stone, P and Wadsworth, W.J. (1999) *Caledonian Igneous Rocks of Great Britain,* Geological Conservation Review Series, No. 17, Joint Nature Conservation Committee, Peterborough, 648 pp.

Stephenson, D., Loughlin, S.C., Millward, D., Waters, C.N. and Williamson, I.T. (2003) *Carboniferous and Permian Igneous Rocks of Great Britain,* Geological Conservation Review Series, No. 27, Joint Nature Conservation Committee, Peterborough, 374 pp.

Stevenson, I.P. and Gaunt, G.D. (1971) *Geology of the Country Around Chapel en le Frith,* Memoir of the Geological Survey of Great Britain, Sheet 99 (England and Wales), HMSO, London, 444 pp.

Stone, M. (1969) Nature and origin of banding in the granite sheets of Tremearne, Porthleven, Cornwall. *Geological Magazine*, 106, 142–58.

Stone, M. (1975) Structure and petrology of the Tregonning–Godolphin granite, Cornwall. *Proceedings of the Geologists' Association,* 86, 155–70.

Stone, M. (1984) Textural evolution of lithium mica granites in the Cornubian batholith. *Proceedings of the Geologists' Association*, 95, 29–41.

Stone, M. (1992) The Tregonning Granite: petrogenesis of Li-mica granites in the Cornubian batholith. *Mineralogical Magazine*, 56, 141–55.

Stone, M. and Exley, C.S. (1986) High heat production granites of south-west England and their associated mineralisation: a review. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science),* 95, B25–36.

Stone, M. and George, M.C. (1978) Amblygonite in leucogranites of the Tregonning–Godolphin Granite, Cornwall. *Mineralogical Magazine*, 42, 151–2.

Stone M., Exley, C.S. and George, M.C. (1988) Composition of trioctahedral micas in the Cornubian batholith. *Mineralogical Magazine*, 52, 175–92.

Strahan, A., Flett, J.S. and Dinham, C.H. (1917) *Potash-Feldspar-Phosphate of Lime–Alum Shales–Plumbago or Graphite–Molybdenite–Chromite–Talc and Steatite (Soapstone, Soap-rock and Potstone)–Diatomite,* 2nd edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 30, HMSO, London, 43 pp.

Strens, R.G.T. (1962) The geology of the Borrowdale–Honister district (Cumberland) with special reference to mineralization. Unpublished PhD thesis, University of Nottingham.

Strens, R.G.T. (1965) The graphite deposit of Seathwaite in Borrowdale, Cumberland. *Geological Magazine*, 102, 393–406.

Styles, M.T. and Kirby, G.A. (1980) New Investigations of the Lizard Complex, Cornwall, England. In *Ophiolites* (ed. A. Panayiotou), *Proceedings of the International Ophiolite Symposium, Cyprus*, 1979, Ministry of Agriculture and Natural Resources, Geological Survey Department, Nicosia, pp. 517–26.

Swainbank, I.G., Colman, T.B., Fletcher, C.J. and Mason, J.S. (1992) Multiple sources for lead mineralisation in the Caledonian terrane of Wales. In *Mineral Deposit Modelling in Relation to Crustal Reservoirs of the Ore-Forming Elements,* (ed. R.P. Foster), *Institution of Mining and Metallurgy Conference Abstracts, Nottingham, April 22–23,* 1992, Institution of Mining and Metallurgy, London.

Sylvester-Bradley, P.C. (1964) The origin of oil and life. Discovery, 25, 37-42.

Sylvester-Bradley, P.C. and Ford, T.D. (eds) (1968) *The Geology of the East Midlands,* Leicester University Press, Leicester, 400 pp.

Sylvester-Bradley, P.C. and King, R.J. (1963) Evidence for abiogenic hydrocarbons. Nature, 198, 728–31.

Symes, R.F. (1985) Mineralisation. In *New Sites for Old: a Students Guide to the Geology of the East Mendips* (eds K.L. Duff, A.P. McKirdy and M.J. Harley), Nature Conservancy Council, Peterborough.

Symes, R.F. and Embrey, P.G. (1977) Mendipite and other rare oxyhalides from the Mendip Hills. *The Mineralogical Record*, 8, 298–303.

Symes, R.F. and Young, B. (2008) Minerals of Northern England, NMSE — Publishing Ltd, Edinburgh, 228 pp.

Symes, R.F., Cressey, G., Griddle, A.J., Stanley, C.J., Francis, J.G. and Jones, G.C. (1994) Parkinsonite, a new mineral from Merehgad Quarry Somerset. *Mineralogical Magazine*, 58, 59–68.

Taylor, B.J., Price, R.H. and Trotter, F.M. (1963) *Geology of the Country Around Stockport and Knutsford,* Memoir of the Geological Survey of Great Britain, Sheet 98 (England and Wales), HMSO, London, 183 pp.

Taylor, J.H. (1934) The Mountsorrel Granodiorite and Associated Igneous Rocks. Geological Magazine, 71, 1–16

Tennant, S.C. (1999) Volcanic stratigraphy and lithogeochemistry at the Parys Mountain. Unpublished PhD thesis, University of Wales.

Tennant, S.C. and Steed, G. (1997) Role of lithogeochemistry in reassessment of the geological setting of Parys Mountain polymetallic sulphide deposit, Anglesey, Wales. *Transactions of the Institution of Mining and Metallurgy* (Section B: Applied Earth Science), 106, B144–56.

Thanasuthipitak, T. (1974) The relationship of mineralization to petrology at Parys Mountain, Anglesey. Unpublished PhD thesis, University of Aston.

Thomas, H.H. (1909) Orthite in North Wales. Nature, 81, 487.

Thomas, J.E., Dodson, M.H., Rex, D.C. and Ferrara, G. (1966) Caledonian magmatism in North Wales. *Nature*, 209, 866–8.

Thompson, L.M. (1933) The Great Sulphur Vein of Alston Moor. *Proceedings of the University of Durham Philosophical Society*, 9, 91–8.

Thompson, D.B. (1970a) The stratigraphy of the so-called Keuper Sandstone Formation (Scythian–?Anisian) in the Permo-Triassic Cheshire Basin. *Quarterly Journal of the Geological Society of London,* 126(1–2), 151–81.

Thompson, D.B. (1970b) Sedimentation in the Triassic (Scythian) red pebbly sandstones in the Cheshire Basin and its margins. *Geological Journal*, 7(1), 183–216.

Thompson, D.B. (1991) Triassic rocks of the Cheshire Basin: Itineraries VIII and XI, Alderley Edge 1 and 2. In *Geology of the Manchester Area* (R.M.C. Eagar and F.M. Broadhurst), 2nd edn, Geologists' Association Guide, No. 7. The Geologists' Association, London, pp. 57–74.

Thomson, T. (1835) Account of some new species of minerals containing barytes. *Records of General Science*, 1, 369–75.

Thomson, T. (1837) On the right rhombic barytocalcite, with reference to Prof. Johnston's paper in the Phil. Mag. For May 1837. *Philosophical Magazine*, 11, 45–8.

Tien, P.-L. (1973) Palygorskite from Warren Quarry, Enderby, Leicestershire, England. Clay Minerals, 10, 27–34.

Timberlake, S. (1988) Bronze Age mining at Cwmystwyth : the radiocarbon dates. Archaeology in Wales, 28, 50.

Timberlake, S. (1989) Excavations at Parys Mountain and Nantyreira. In *Early Mining in the British Isles* (eds P. Crew and S. Crew), *Plas Tan y Bwlch Occasional Paper*, No. 1, Snowdonia National Park Study Centre, Blaenau Ffestiniog, pp. 15–21.

Timberlake, S. (1992) Llancynfelin and Nantyrarian mines. Archaeology in Wales, 32, 90-1.

Timberlake, S. and Kidd, A.D. (2005) The archaeological excavation of a Roman mine shaft and gallery (Tot Shaft') at Engine Vein, Alderley Edge. *British Archaeological Reports*, 396, 79–97.

Timberlake, S. and King, C. (2005) Archaeological excavations at Engine Vein, Alderley Edge, 1997. *British Archaeological Reports*, 396, 33–57.

Timberlake, S. and Mills, S. (2003) The use of a portable XRF within an early nineteenth century cobalt mine on Alderley Edge, Cheshire. *UK Journal of Mines and Minerals*, 23, 41–6.

Tindle, A.G. (2008) Minerals of Britain and Ireland, Terra Publishing, Harpenden, 616 pp.

Tindle, A.G., Bridges, T.F. and Green, D.I. (2006) The composition of tsumebite from Roughton Gill Mine, Caldbeck Fells, Cumbria. *UK Journal of Mines and Minerals*, 27, 48–50.

Tischendorf, G. (1968) Sources of elements in selenide mineralisation near Tilkerode (Harz). *International Geology Reviews*, 11, 1298–301.

Tomkeieff S.I. (1926) On some chloritic minerals associated with the basaltic Carboniferous rocks of Derbyshire. *Mineralogical Magazine*, 21, 73–82.

Tomkeieff S.I. (1928) The Volcanic Complex of Calton Hill (Derbyshire). *Quarterly Journal of the Geological Society of London*, 84, 703–18.

Traill, T.S. (1821) Observation on the mineralogy of Halkin Mountain, in Flintshire; with particular account of the recently discovered Buhrstone and porcelain-clay of that place. *Edinburgh Philosophical Journal*, 4, 246–61.

Trestrail, G.F.W. (1931) The witherite deposit of the Settlingstones Mine, Northumberland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 40, B55–65.

Trestrail, G.F.W. (1938) Witherite in Northumberland. *Mine and Quarry Engineering*, 3, 247–51.

Tripe, C. (1827) Observations on a Mineral from near Hay Tor. *Philosophical Magazine*, 1, 38–40.

Trotter, F.M. (1945) The origin of the west Cumbrian haematites. Geological Magazine, 82, 67-80.

Trotter, F.M., Hollingworth, S.E., Eastwood, T and Rose, W.C.C. (1937) *Gosforth District,* Memoir of the Geological Survey of Great Britain, Sheet 37 (England and Wales), HMSO, London, 140 pp.

Trythall, R.J.B. (1989) The mid-Ordovician oolitic ironstones of North Wales: a field guide. In *Phanerozoic Ironstones* (eds T.P. Young and W.E.G. Taylor), *Geological Society of London Special Publication,* No. 46, Geological Society, Bath, pp. 213–20.

Tucker, M. and Tucker, G. (1975) The lead mines of southeast Wales. *Bulletin of the Peak District Mines Historical Society,* 6, 15–27.

Tucker, M.E. (1976) Quartz replaced anhydrite nodules 'Bristol Diamonds' from the Triassic of the Bristol District. *Geological Magazine*, 113, 569–74.

Tyler, I. (1990) Force Crag: the History of a Lakeland Mine, Red Earth Publications, Ulverston, 120 pp.

Tyler, I. (1995) Seatbwaite Wad and the Mines of the Borrowdale Valley, Blue Rock Publications, Carlisle, 220 pp.

Van Marke de Lummen, G. and Verkaeren, J. (1985) Mineralogical Observations and genetic considerations relating to a skarn formation at Botallack, Cornwall, England. In *High Heat Production (HHP) Granites, Hydrothermal Circulation and Ore Genesis,* Institution of Mining and Metallurgy, London, pp. 535–47.

Vaughan, D.J. and Ixer, R.A. (1980) Studies of sulphide mineralogy of north Pennine ores and its contribution to genetic models. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 89, B99–13109.

Vernon, R.W. (1993) *Pennant Barytes and Lead Mine, Clwyd.* Report on the Mine Workings and Features of Industrial Importance, Welsh Mines Preservation Trust, 7 pp.

Vink, B.W. (1986) Stability relations of malachite and azurite. *Mineralogical Magazine*, 50, 41–7.

Vivian, W. (1859) On arborescent native copper in the Great Ormeshead, North Wales. *Quarterly Journal of the Geological Society of London*, 15, 109–10.

Von Knorring, O. and Condliffe, E. (1984) On the occurrence of niobium-tantalum and other rare element minerals in the Meldon aplite, Devonshire, *Mineralogical Magazine*, 48, 443–8.

Wadge, A.J., Hudson, J.M., Patrick, D.J., Smith, I.F., Evans, A.D., Appleton, J.D. and Bateson, J.H. (1981) Copper mineralisation near Middleton Tyas. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 54.

Wadge, A.J., Bateson, J.H. and Evans, A.D. (1984) Mineral reconnaissance surveys in the Craven Basin. *Mineral Reconnaissance Programme Report, Institute of Geological Sciences,* No. 66.

Wager, L.R. (1929) Metasomatism in the Whin Sill of the north of England. Part I: Metasomatism by lead vein solutions. Part II: Hydrothermal alteration by juvenile solutions. *Geological Magazine*, 66, 97–110; 221–38.

Walenta, K. (1984) Cualstibite, a new secondary mineral from the Clara Mine in the Central Black Forest (FRG). *Chemie der Erde*, 43, 255–60 [in German].

Wallace, W. (1861) The Laws Which Regulate the Deposition of Lead in Veins; Illustrated by an Examination of the Geological Structure of the Mining Districts of Alston Moor, E. Stanford, London, 258 pp.

Walsh, P.T., Boulter, M.C., Ijtabe, M. and Urbani, D.M. (1972) The preservation of the Neogene Brassington Formation of the southern Pennines and its bearing on the evolution of Upland Britain. *Journal of the Geological Society of London*, 128, 519–59.

Walsh, P.T., Boulter, M.G. and Morawiecka, I. (1999) Ghanian and Miocene elements in the modern landscape of western Britain and Ireland. In *Uplift, Erosion and Stability: Perspectives on Long-term Landscape Development* (eds B.J. Smith, W.B. Whalley and P.A. Warke), *Geological Society of London Special Publication,* No. 162, Geological Society, Bath, pp. 45–63.

Walsh, P.T, Collins, P, Ijtaba, M., Newton, J.P., Scott, N.H. and Turner, P.R. (1980) Palaeocurrent directions and their bearing of the origin of the Brassington Formation (Miocene-Pliocene) of the southern Pennines, Derbyshire. *Mercian Geologist*, 8, 47–62.

Walters, S.G. and Ineson, P.R. (1981) A review of the distribution and correlation of igneous rocks in Derbyshire, England. *Mercian Geologist*, 8, 81–132.

Ward, G.R. (1983) Bertrandite from Hingston Down quarry, Calstock, Cornwall. *Proceedings of the Ussber Society*, 5, 485–6.

Ward, J.C. (1876a) On the granitic, granitoid and associated metamorphic rocks of the Lake District. Parts III–V. *Quarterly Journal of the Geological Society of London,* 32, 1–34.

Ward, J.C. (1876b) *The Geology of the Northern Part of the English Lake District,* Memoir of the Geological Survey of Great Britain, Quarter Sheet 101SE (England and Wales), HMSO, London, 132 pp.

Ward, P (1982) Mottram Mine, Cheshire. Mineral Realm, 2(2), 11–13.

Warren, P.T, Price, D., Nutt, M.J.C. and Smith, E.G. (1984) *Geology of the Country Around Rhyl and Denbigh,* Memoir of the British Geological Survey, Sheets 95 and 107 and parts of Sheets 94 and 106 (England and Wales), HMSO, London, 217 pp.

Warriner, D. (1982) Examination and survey of Bage Mine. *Bulletin of the Peak District Mines Historical Society*, 8, 243–59.

Warriner, D., Willies, L. and Flindall, R. (1981) Ringing Rake and Masson Sloughs and the Mines on the East Side of Masson Hill, Matlock. *Bulletin of the Peak District Mines Historical Society*, 8, 65–102.

Warrington, G. (1965) The metalliferous mining district of Alderley Edge, Cheshire. *Mercian Geologist*, 1(2), 111–29.

Warrington, G. (1970) The stratigraphy and palaeontology of the 'Keuper' Series of the Central Midlands of England. *Quarterly Journal of the Geological Society of London,* 126, 183–224.

Warrington, G. (1980a) Non-ferrous mining in north Shropshire and Cheshire. *Shropshire Caving and Mining Club Journal,* for 1979, 9–20.

Warrington, G. (1980b) The Alderley Edge mining district. The Amateur Geologist, 8(1), 4-13.

Warrington, G. (1981) The copper mines of Alderley Edge and Mottram St Andrew, Cheshire.Journal of the Chester Archaeological Society, 64, 47–73.

Warrington, G. (1995) North Shropshire copper mines. In *Mining in Shropshire* (ed. A. Pearce), Shropshire Books, Shrewsbury, pp. 19–26.

Warrington, G. and Ivimey-Cook, H.C. (1992) Triassic. In *Atlas of Palaeogeography and Lithofacies* (eds J.C.W. Cope, J.K. Ingham and P.F. Rawson), *Geological Society of London Memoir,* No. 13, Geological Society of London, Bath, pp. 97–106.

Warrington, G. and Thompson, D.B. (1971) The Triassic rocks of Alderley Edge, Cheshire. *Mercian Geologist*, 4(1), 69–72

Warrington, G., Audley-Charles, M.G., Elliot, R.E., Evans, W.B., Ivimey-Cook, H.C., Kent, P.E., Robinson, E.L., Shotton, Shotton, F.W. and Taylor, R.M. (1980) A *Correlation of Triassic Rocks of the British Isles, Geological Society of London Special Report*, No. 3, Blackwell Scientific Publications, Oxford, 78 pp.

Warrington, G., Wilson, A.A., Jones, N.S., Young, R. and Haslam, H.W. (1999) Stratigraphy and sedimentology. In *The Cheshire Basin: Basin Evolution, Fluid Movement and Mineral Resources in a Permo-Triassic Rift Setting (eds* J.A. Plant, D.G. Jones and H.W. Haslam), British Geological Survey, Keyworth, pp. 10–40.

Watts, W.W (1947) *Geology of the Ancient Rocks of Charnwood Forest, Leicestershire,* Edgar Backus for the Leicester Literary and Philosophical Society, Leicester, 160 pp.

Weaver, D.J. (1974) Systematic jointing in South Derbyshire. Mercian Geologist, 5, 115-32.

Weis, E.L., Friedman, I. and Gleason, J.P. (1981) The origin of epigenetic graphite: evidence from isotopes. *Geochimica et Cosmochimica Acta*, 45, 2325–32.

Weiss, S. (1989) Aktuelle Neufunde aus Cornwall. Lapis, 6, 40-1.

Welch, M.D., Cooper, M.A., Hawthorne, F.C. and Criddle, A.J. (2000) Symesite, Pb₁₀(SO₄)O₇ Cl₄(H₂O), a new PbO-related sheet mineral: Description and crystal structure. *American Mineralogist*, 85, 1526–33.

Welch, M.D., Criddle, A.J. and Symes, R.F. (1998) Mereheadite, Pb₂O(OH)CI: a new litharge-related oxychloride from Merehead Quarry, Cranmore, Somerset. *Mineralogical Magazine*, 62, 387–93.

Welch, M.D., Schofield, P.F., Cressey, G. and Stanley, C.J. (1996) Cation ordering in lead-molybdenum-vanadium oxychlorides. *American Mineralogist*, 81, 1350–9.

Westhead, S.J. (1991) Prospects at Parys mountain. Geology Today, 7, 130-3.

Westhead, S.J. (1993) The structural controls on mineralisation at Parys Mountain, Anglesey, North Wales. Unpublished PhD thesis, University of Wales.

Wheatley, C.J.V. (1971a) Aspects of metallogenesis within the Southern Caledonides of Great Britain and Ireland. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 80, B211–23.

Wheatley, C.J.V. (1971b) Economic geology of the Avoca mineralised belt, S.E. Ireland, and Parys Mountain, Anglesey. Unpublished PhD thesis, Imperial College, University of London.

Whitaker, A. (1972) The Somerset salt-field. Nature, 238, 265-6.

Whittaker, A. and Green, G.W. (1983) *Geology of the Country Around Weston-super-Mare,* Memoir of the Geological Survey of Great Britain, Sheet 279 with parts of Sheets 263 and 295 (England and Wales), HMSO, London, 147 pp.

Wilkinson, J.J. (1990) The role of metamorphic fluids in the development of the Cornubian orefields: fluid inclusion evidence from South Cornwall. *Mineralogical Magazine*, 54, 219–30.

E.C. (1970) Galena in Mesozoic sedimentary rocks of South Wales. *Economic Geology*, 65, 40-6.

Williams, D. and Ramsay, J.G. (1968) *Geology of Some Classic British Areas: Snowdonia,* rev. edn, Geologists' Association Guide, No. 28, Benham, Colchester, 20 pp.

Williams, H. (1927) The geology of Snowdon (North Wales). *Quarterly Journal of the Geological Society of London*, 83, 346–431.

Williams, M. (1958) Geology and mineralisation of the Llanharry haematite deposits, South Wales. Unpublished PhD thesis, University of London.

Williams, P.A. (1990) Oxide Zone Geochemistry, Ellis Horwood, London, 286 pp.

Williams, R.A. (1995) Mining and Quarrying in Clwyd. In *Minera Lead Mines and Quarries* (ed. J. Bennett), Wrexham Maelor Borough Council, Wrexham, pp. 1–14.

Wilson, G.V., Eastwood, T., Pocock, R.W., Wray, D.A. and Robertson, T. (1922) *Barytes and Witherite,* 3rd edn, Special Report on the Mineral Resources of Great Britain, Memoir of the Geological Survey of Great Britain, Vol. 2, HMSO, London, 119 pp.

Wirth, M. (1989) Native silver from Red Gill Mine, Caldbeck Fells, Cumbria. Journal of the Russell Society, 2, 49.

Wolfe, J.A. (1980) Fluidisation versus phreato-magmatic explosions in breccia-pipes. Economic Geology, 75, 1105-9.

Woodcock, N.H. (1984) The Pontesford Lineament, Welsh borderland. *Journal of the Geological Society of London*, 141, 1001–14.

Woodcock, N.H. (1993) The Precambrian and Silurian of the Old Radnor to Presteigne area. In *Geological Excursions in Powys, Central Wales* (eds N.H. Woodcock and M.G. Bassett), University of Wales Press and National Museum of Wales, Cardiff, pp. 229–41.

Woodcock, N.H. and Soper, N.J. (2006) The Acadian Orogeny: the mid-Devonian phase of deformation that formed slate belts in England and Wales. In *The Geology of England and Wales* (eds P.J. Brenchley and P.F. Rawson), 2nd edn, Geological Society of London, London, pp. 131–46.

Woodland, A.W. (1939a) The petrography and petrology of the Lower Cambrian manganese ore of western Merionethshire. *Quarterly Journal of the Geological Society of London*, 95, 1–35.

Woodland, A.W. (1939b) The petrography and petrology of the manganese ore of the Rhiw district (Carnarvonshire). *Proceedings of the Geologists' Association*, 50, 205–22.

Woodland, A.W. (1956) The manganese deposits of Great Britain. In *Symposium Sobre Yacimientos de Manganeso, Tomo 5: Europa. 20th International Geological Congress, Mexico,* 1956, Universidad Nacional Autónoma de México, México, pp. 197–218.

Woodward, H.B. (1893) *The Jurassic Rocks of Britain. Volume 3: the Lias of England and Wales (Yorkshire Excepted),* Memoir of the Geological Survey of the United Kingdom, HMSO, London, 399 pp.

Woodward, J. (1729) An Attempt Towards a Natural History of the Fossils of England; in a Catalogue of the English Fossils in the Collection of J. Woodward, MD., F Fayram, London, 2 volumes.

Worley, N. and Ford, T.D. (1977) Mississippi Valley Type Orefields in Britain. *Bulletin of the Peak District Mines Historical Society,* 6, 201–8.

Worssam, B.C. and Old, R.A. (1988) *Geology of the Country Around Coalville,* Memoir of the British Geological Survey, Sheet 155 (England and Wales), HMSO, London, 161 pp.

Worth, R.H. (1920) The geology of the Meldon Valleys near Okehampton on the northern verge of Dartmoor. *Quarterly Journal of the Geological Society of London*, 75, 77–118

Wright, V.P. and Sadler, A. (1994) A hydrogeo-logical model for the early diagenesis of Late Triassic alluvial sediments. *Journal of the Geological Society of London*, 151, 897–900.

Xuemin, G., Fowler, M.G., Gomet, P.A., Manning, D.A.C., Douglas, A.G., McEvoy, J. and Giger, W. (1987) Investigation of three natural bitumens from central England by hydrous pyrolysis and gas chromatography spectrometry. *Chemical Geology*, 64, 181–95.

Young, B. (1984) Geology and history of Nab Gill Mine, Eskdale, Cumbria. *Proceedings of the Cumberland Geological Society*, 4, 269–75.

Young, B. (1985a) Greisens and related rocks associated with the Eskdale Granite, Cumbria. *Report of Programme Directorate A, British Geological Survey*, No. PDA2 85/2.

Young, B. (1985b). Mineralisation associated with the Eskdale intrusion, Cumbria. *Report of Programme Directorate A, British Geological Survey*, No. PDA2 85/3.

Young, B. (1985c) The distribution of barytocalcite and alstonite in the Northern Pennine Orefield. *Proceedings of the Yorkshire Geological Society*, 45, 199–206.

Young, B. (1985d) Strontianite from the northern Pennine orefield. *Mineralogical Magazine*, 49, 762.

Young, B. (1985e) Pyromorphite in the Northern Pennines. Journal of the Russell Society, 1, 81–2.

Young, B. (1986) Wulfenite from Ruthwaite Lodge, Grisedale — a new Lake District occurrence. *Proceedings of the Cumberland Geological Society*, 4, 403.

Young, B. (1987a) *Glossary of the Minerals of the Lake District and Adjoining Areas,* British Geological Survey, Newcastle-upon-Tyne, 104 pp.

Young, B. (1987b) Uncommon Pennine minerals. Part 2: Strontianite from the Yorkshire Pennines. *Transactions of the Leeds Geological Association*, 11(3), 33–40.

Young, B. (1988) Wavellite and variscite from Scar Crag Cobalt Mine, Cumbria. *Proceedings of the Cumberland Geological Society*, 5, 13–16.

Young, B. (1993) Some new occurrences of barytocalcite in the Northern Pennine Orefield. *Transactions of the Natural History Society of Northumbria*, 56, 61–4.

Young, B. (1995) The Northern Pennine Orefield: Weardale and Nenthead. In *Northumberland Rocks and Landscape* (ed. C. Scrutton), Ellenbank Press & Yorkshire Geological Society.

Young, B. (1998) Mines and minerals. The Scordale lead mines. Sanctuary, 27, 10-11.

Young, B. (2007) Florence Mine, Egremont. A description of the geological and mineralogical features exposed at the time of closure February 2007. Unpublished report commissioned by Natural England.

Young, B. and Bridges, T.F. (1984) Harmotome from Northumberland. *Transactions of the Natural History Society of Northumbria*, 52, 24–6.

Young, B. and Cooper, A.H. (1988) The geology and mineralization of Force Crag Mine, Cumbria. *Proceedings of the Cumberland Geological Society*, 5, 5–11.

Young, B. and Johnson, E.W. (1985) Langite and posnjakite from the Lake District. Journal of the Russell Society, 1, 80.

Young, B., Pettigrew, T. and Bridges, T.F. (1985a) Rosasite and aurichalcite from the Northern Penine Orefield. *Transactions of the Natural History Society of Northumbria*, 54, 31.

Young, B., Styles, M.T. and Berridge, N.G. (1985b) Niccolite-magnetite mineralization from Upper Teesdale, North Pennines. *Mineralogical Magazine*, 49, 555–9.

Young, B., Fortey, N.J. and Nancarrow, P.H.A. (1986) An occurrence of tungsten mineralisation in the Eskdale Intrusion, Cumbria. *Proceedings of the Yorkshire Geological Society*, 46, 15–21.

Young, B., Bridges, T.F. and meson, P.R. (1987) Supergene cadmium mineralisation in the Northern Pennine Orefield. *Proceedings of the Yorkshire Geological Society*, 46, 275–8.

Young, B., Ansari, S.M. and Firman, R.J. (1988) Field relationships, mineralogy and chemistry of the greisens and related rocks associated with the Eskdale Granite, Cumbria. *Proceedings of the Yorkshire Geological Society*, 47, 109–23.

Young, B., meson, P.R., Bridges, T.F. and Smith, M.E. (1989) Cinnabar from the Northern Pennines, England. *Mineralogical Magazine*, 53, 388–90.

Young, B., Fortey, N.J. and Nancarrow, (1991) Russellite from Buckbarrow Beck, Cumbria, England. *Journal of the Russell Society*, 4, 3–7.

Young, B., Livingstone, A. and Thomson, N. (1992a) Fraipontite from Wensleydale, North Yorkshire. *Proceedings of the Yorshire Geological Society*, 49, 125–7.

Young, B. Millward, D. and Cooper, D.C. (1992b) Barium and base-metal mineralization associated with the southern margin of the Solway-Northumberland trough. Conference Report. *Transactions of the Institution of Mining and Metallurgy (Section B: Applied Earth Science)*, 101, B171–3.

Young, B., Bridges, T.F. and Hyslop, E.K. (1994) Leadhillite from the Northern Pennine Orefield, England. *Journal of the Russell Society*, 5, *1*21–3.

Young, B., Hyslop, E.K., Bridges, T.F. and Cooper, J. (2005) New records of supergene minerals from the Northern Pennine Orefield. *Transactions of the Natural History Society of Northumbria*, 64(3).

Young, B.R., Harrison, R.K., Sergeant, G.A. and Stevenson, L.P. (1968) An unusual glauconite associated with hydrocarbon in reef limestones near Castleton, Derbyshire. *Proceedings of the Yorkshire Geological Society*, 36, 417–34.

Young, T.P. (1992) Ooidal ironstones from Ordovician Gondwana: a review. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 99, 321–47.

Young, T.P. (1993) Sedimentary iron ores. In *Mineralization in the British Isles* (eds R.A.D. Pattrick and D.A. Polya), Chapman and Hall, London, pp. 446–89.

Young, T.P., Aggett, J.R. and Howard, A.S. (1991) The Cleveland Ironstone Formation. In *Jurassic and Ordovician Ooidal Ironstones* (ed. T.P. Young), 13th International Sedimentological Congress Fieldguide, No. 9, British Sedimentological Research Group, Reading, pp. 1–31.

References