Crayton J. Yapp PUBLICATIONS in refereed journals:

- Epstein, S., Yapp, C.J. and Hall, J.H. (1976) The determination of the D/H ratio of nonexchangeable hydrogen in cellulose extracted from aquatic and land plants, *Earth and Planetary Science Letters* 30, 241-251.
- Epstein, S. and Yapp, C.J. (1976) Climatic implications of the D/H ratio of hydrogen in C-H groups in tree cellulose, *Earth and Planetary Science Letters* 30, 252-261.
- Epstein, S. and Yapp, C.J. (1977) Isotope tree thermometers, *Nature* 266, 477.
- Yapp, C.J. and Epstein, S. (1977) Climatic implications of D/H ratios of meteoric water over North America (9500-22,000 B.P.) as inferred from ancient wood cellulose C-H hydrogen, *Earth and Planetary Science Letters* 34, 333-350.
- Epstein, S., Thompson, P. and Yapp, C.J. (1977) Oxygen and hydrogen isotopic ratios in plant cellulose, *Science* 198, 1209-1215.
- O'Leary, M.H. and Yapp, C.J. (1978) Equilibrium carbon isotope effect on a decarboxylation reaction, *Biochem. Biophys. Res. Comm.* 80, 155-160.
- Yapp, C.J (1979) Oxygen and carbon isotope measurements of land snail shell carbonate, *Geochimica et Cosmochimica Acta* 46, 629-635.
- O'Leary, M.H., Yamada, H. and Yapp, C.J. (1981) Multiple isotope effect probes of glutamate decarboxylase, *Biochemistry* 20, 1476-1481.
- Yapp, C.J. and Epstein, S. (1982) A re-examination of cellulose carbon-bound hydrogen δD measurements and some factors affecting plant-water D/H relationships, *Geochimica et Cosmochimica Acta* 46, 955-965.
- Yapp, C.J and Epstein, S. (1982) Climatic significance of the hydrogen isotope ratios in tree cellulose, *Nature* 297, 636-639.
- Yapp, C. J. (1982) A model for the relationships between precipitation D/H ratios and precipitation intensity, *Journal of Geophysical Research* 87, C12, 9614-9620.
- Yapp, C.J. (1983) Stable hydrogen isotopes in iron oxides--isotope effects associated with the dehydration of a natural goethite, *Geochimica et Cosmochimica Acta 47*, 1277-1287.
- Yapp, C. J. (1983) Effects of AlOOH-FeOOH solid solution on goethite-hematite equilibrium, *Clays and Clay Minerals* 31, 239-240.

- Yapp, C.J. (1985) D/H variations of meteoric waters in Albuquerque, New Mexico, USA, *Journal of Hydrology* 76, 63-84.
- Yapp, C.J. and Epstein, S. (1985) Seasonal contributions to the climatic variations recorded in tree ring D/H data, *Journal of Geophysical Research* 90, D2, 3747-3752.
- Yapp, C.J. and Pedley, M.D. (1985) Stable hydrogen isotopes in iron oxides-II. D/H variations among natural goethites, *Geochimica et Cosmochimica Acta* 49, 487-495.
- Yapp, C.J. and Poths, H. (1986) Carbon in natural goethites, *Geochimica et Cosmochimica Acta* 50, 1213-1220.
- Yapp, C.J. (1987) Oxygen and hydrogen isotope variations among goethites (α-FeOOH) and the determination of paleotemperatures, *Geochimica et Cosmochimica Acta* 51, 355-364.
- Yapp, C.J. (1987) A possible goethite-iron (III) carbonate solid solution and the determination of CO₂ partial pressures in low temperature geologic systems, *Chemical Geology* 64, 259-268.
- Yapp, C.J. (1990) Oxygen isotopes in iron (III) oxides. 1. Mineral-water fractionation factors, *Chemical Geology* 85, 329-335.
- Yapp, C.J. (1990) Oxygen isotopes in iron (III) oxides: 2. possible constraints on the depositional environment of a Precambrian quartz-hematite BIF, *Chemical Geology* 85, 337-344.
- Yapp, C.J. (1990) Oxygen isotope effects associated with the solid state FeOOH to Fe₂O₃ phase transformation, *Geochimica et Cosmochimica Acta* 54, 229-236.
- Yapp, C.J. and Poths, H. (1990) Infrared spectral evidence for a minor Fe(III) carbonate-bearing component in natural goethite, *Clays and Clay Minerals* 38, 442-444.
- Yapp, C.J. and Poths, H. (1991) ¹³C/¹²C ratios of the Fe(III) carbonate component in natural goethites, *Stable Isotope Geochemistry: A Tribute to Samuel Epstein* (ed., H.P. Taylor, Jr., *et al.*), *Geochemical Society Special Publication* 3, 257-270.
- Yapp, C.J. (1991) Oxygen isotopes in an oolitic ironstone and the determination of goethite δ¹⁸O values by selective dissolution of impurities: the 5 M NaOH method, *Geochimica et Cosmochimica Acta* 55, 2627-2634.
- Yapp, C.J. and Poths, H. (1992) Ancient atmospheric CO₂ pressures inferred from natural goethites, *Nature* 355, 342-344.

- Yapp, C.J. (1993) Paleoenvironment and the oxygen isotope geochemistry of ironstone of the Upper Ordovician Neda Formation, Wisconsin, USA, *Geochimica et Cosmochimica Acta* 57, 2319-2327.
- Yapp, C.J. (1993) The stable isotope geochemistry of low temperature Fe(III) and Al "oxides" with implications for continental paleoclimates, *Climate Change in Continental Isotopic Records*, *Geophysical Monograph* 78, 285-294.
- Yapp, C.J. and Poths, H. (1993) The carbon isotope geochemistry of goethite (α-FeOOH) in ironstone of the Upper Ordovician Neda Formation, Wisconsin, USA: implications for early Paleozoic continental environments, *Geochimica et Cosmochimica Acta* 57, 2599-2611.
- Yapp, C.J. and Poths, H. (1994) Productivity of pre-vascular continental biota inferred from the Fe(CO₃)OH content of goethite, *Nature 368*, 49-51.
- Yapp, C.J. and Poths, H. (1995) Stable hydrogen isotopes in iron oxides: III. nonstoichiometric hydrogen in goethite, *Geochimica et Cosmochimica Acta* 59, 3405-3412.
- Yapp, C.J. and Poths, H. (1996) Carbon isotopes in continental weathering environments and variations in ancient atmospheric CO₂ pressure, *Earth and Planetary Science Letters* 137, 71-82.
- Yapp, C.J. (1996) The abundance of Fe(CO₃)OH in goethite and a possible constraint on minimum atmospheric oxygen partial pressures in the Phanerozoic, *Geochimica et Cosmochimica Acta 60*, 4397-4402.
- Yapp, C.J. (1997) An assessment of isotopic equilibrium in goethites from a bog iron deposit and a lateritic regolith, *Chemical Geology 135*, 159-171.
- Yapp, C.J. (1998) Paleoenvironmental interpretations of oxygen isotope ratios in oolitic ironstones, *Geochimica et Cosmochimica Acta*,62, 2409-2420.
- Hsieh, J.C.C. and C.J. Yapp (1999) Stable carbon isotope budget of CO₂ in a wet, modern soil as inferred from Fe(CO₃)OH in goethite: possible role of calcite dissolution, *Geochimica et Cosmochimica Acta* 63, 767-783.
- Hsieh, J.C.C. and C.J. Yapp (1999) Hydrogen isotope exchange in halloysite: insight from room temperature experiments, *Clays and Clay Minerals* 47, 811-816.
- Yapp, C.J. (2000) Climatic implications of surface domains in arrays of δD and $\delta^{18}O$ from hydroxyl minerals: goethite as an example, *Geochimica et Cosmochimica Acta 64*, 2009-2025.

- Yapp, C. (2001) Rusty relics of Earth history: iron (III) oxides, isotopes, and surficial environments, *Annual Review of Earth and Planetary Sciences* 29, 165-199.
- Yapp, C.J. (2001) Mixing of CO₂ in surficial environments as recorded by the concentration and δ¹³C values of the Fe(CO₃)OH component in goethite, *Geochimica et Cosmochimica Acta 65*, 4115-4130.
- Yapp, C.J. (2002) Erratum to: "Mixing of CO₂ in surficial environments as recorded by the concentration and δ¹³C values of the Fe(CO₃)OH component in goethite". *Geochimica et Cosmochimica Acta 66*, 1497.
- Clark-Thorne, S.T. and Yapp, C.J. (2003) Stable carbon isotope constraints on mixing and mass balance of CO₂ in an urban atmosphere: Dallas metropolitan area, Texas, USA, *Applied Geochemistry* 18, 75-95.
- Yapp, C.J. (2003) A model for ¹⁸O/¹⁶O variations in CO₂ evolved from goethite during the solid state α-FeOOH to α-Fe₂O₃ phase transition. *Geochimica et Cosmochimica Acta* 67, 1991-2004.
- Yapp, C.J. (2004) Fe(CO₃)OH in goethite from a mid-latitude North American Oxisol: estimate of atmospheric CO₂ concentration in the Early Eocene "climatic optimum". *Geochimica et Cosmochimica Acta* 68, 935-947.
- Tabor, N.J., Yapp, C.J., and Montañez, I.P. (2004) Goethite, calcite, and organic matter from Permian and Triassic soils: carbon isotopes and CO₂ concentrations. *Geochim. Cosmochim. Acta* 68, 1503-1517.
- Balakrishnan, M. and Yapp, C.J. (2004) Flux balance models for the oxygen and carbon isotope compositions of land snail shells. *Geochimica et Cosmochimica Acta* 68, 2007-2024.
- Balakrishnan M., Yapp, C.J., Theler J.L., Carter B.J., and Wyckoff D.G. (2005) Environmental significance of ¹³C/¹²C and ¹⁸O/¹⁶O ratios of modern land snail shells from the southern Great Plains of North America. *Quaternary Research* 63, 15-30.
- Balakrishnan M., Yapp C.J., Meltzer D.J., and Theler J.L. (2005) Paleoenvironment of the Folsom archaeological site New Mexico, ~10,500 ¹⁴C years B.P. as inferred from the stable isotope composition of fossil land snail shells. *Quaternary Research* 63, 31-44.
- Tabor, N.J. and Yapp, C.J. (2005) Incremental vacuum dehydration-decarbonation experiments on a natural gibbsite (α -Al(OH)₃): CO₂ abundance and δ ¹³C values. *Geochimica et Cosmochimica Acta* 69, 519-527.

- Tabor, N.J. and Yapp, C.J. (2005) Juxtaposed Permian and Pleistocene isotopic archives: Surficial environments recorded in calcite and goethite from the Wichita Mountains, Oklahoma. *Geological Society of America Special Paper 395*, 55-70.
- Tabor, N.J. and Yapp, C.J. (2005) Coexisting goethite and gibbsite from a high paleolatitude (55°N) Late Paleocene laterite: concentration and ¹³C/¹²C ratios of occluded CO₂ and associated organic matter. *Geochimica et Cosmochimica Acta* 69, 5495-5510.
- Yapp, C.J. (2007) Oxygen isotopes in synthetic goethite and a model for the apparent pH dependence of goethite-water ¹⁸O/¹⁶O fractionation. *Geochimica et Cosmochimica Acta 71*, 1115-1129.
- Feng, W. and Yapp, C.J. (2008) Experimental tests of the effects of Al substitution on the goethite-water D/H fractionation factor. *Geochimica et Cosmochimica Acta* 72, 1295-1311.
- Yapp, C.J. (2008) ¹⁸O/¹⁶O and D/H in goethite from a North American Oxisol of the Early Eocene climatic optimum. *Geochimica et Cosmochimica Acta* 72, 5838-5851.
- Feng, W. and Yapp, C.J. (2009) Paleoenvironmental implications of concentration and ¹³C/¹²C ratios of Fe(CO₃)OH in goethite from a mid-latitude Cenomanian laterite in southwestern Minnesota. *Geochimica et Cosmochimica Acta* 73, 2559-2580.
- Feng, W. and Yapp, C.J. (2009) ¹⁸O/¹⁶O and D/H ratios of pedogenic kaolinite in a North American Cenomanian laterite: paleoclimatic implications. *Geochimica et Cosmochimica Acta* 73, 6249-6263.
- Yanes Y. and Yapp C.J. (2010) Indoor and outdoor urban atmospheric CO₂: stable carbon isotope constraints on mixing and mass balance. *Applied Geochemistry* 25, 1339-1349.
- Yanes Y., Yapp C.J., Delgado A., Ibáñez M., Alonso M.R., De-la-Nuez J., Castillo C., Quesada M.L. (2011) Pleistocene-Holocene environmental change in the Canary Archipelago: a land snail isotopic record. *Quaternary Research* 75, 658 669.
- Yapp C.J. and Shuster D.L. (2011) Environmental memory and a possible seasonal bias in the stable isotope composition of (U-Th)/He-dated goethite from the Canadian Arctic. *Geochimica et Cosmochimica Acta* 75, 4194 4215.
- Yapp C.J. (2012) Oxygen isotope effects associated with substitution of Al for Fe in synthetic goethite: some experimental evidence and the criterion of oxygen yield. *Geochimica et Cosmochimica Acta 97*, 200-212.

Yapp C.J. (2015) 18 O/ 16 O in CO₂ evolved from goethite during some unusually rapid solid state α -FeOOH to α -Fe₂O₃ phase transitions: Test of an exchange model for possible use in oxygen isotope analyses of goethite. *Geochimica et Cosmochimica Acta 170*, 1-16.