# Further reading

Level of difficulty: (A) armchair reading; (B) for students; (C) serious stuff. This list of references is not exhaustive. It is only intended to guide the reader into more specialized fields.


Albarède, F. (1995) *Introduction to Geochemical Modeling.* Cambridge: Cambridge University Press. Geochemical modeling methods with plenty of examples. C.

Atkins, P. and de Paula, J. (2006) *Atkins' Physical Chemistry* 8th edn. The European classic, very clear and nicely printed. C.

Allègre, C. J. (2008) *Isotope Geology.* Cambridge: Cambridge University Press. A textbook about isotopes and global geochemistry. The focus is on mass balance. B.

Anderson, D. L. (2007) *New Theory of the Earth*. Oxford: Blackwell. The original ideas of one of the most influential geophysicists who does not hesitate to cross the line between geophysics and geochemistry. B.

Aris, R. (1999) *Elementary Chemical Reactor Analysis*. Mineola: Dover. A reprint of the 1989 classic textbook on chemical engineering. Outstanding value. C.

Berner, R. A. (1980) *Early Diagenesis*. Princeton: Princeton University Press. A common sense but powerful explanation of early diagenesis. B.

Bethke, C.M. (2008) *Geochemical and Biogeochemical Reaction Modeling,* 2nd edn. Cambridge: Cambridge University Press. A rigorous presentation of geochemical concepts with a focus on environmental issues and water–rock interaction. A useful introduction to a well-distributed software package. B.

Broecker, W. S. (1994) *Greenhouse Puzzles*. Palisades: Eldigio. The greenhouse effect will never seem the same to you again. A.

Broecker, W. S. (1995) *The Glacial World According to Wally*. Palisades: Eldigio. Quaternary climates by the undisputed champion. A.

Broecker, W. S. and Peng, T. H. (1982) *Tracers in the Sea*. Palisades: Eldigio. Not read it yet? Still fascinating 25 years later. B.

Brownlow, A. H. (1986) *Geochemistry*. Upper Saddle Review, Prentice Hall. One of the most popular textbooks on geochemistry. B.

Cottingham, W. N. and Greenwood, D. A. (1986) *An Introduction to Nuclear Physics*. Cambridge: Cambridge University Press. If you desperately need to get into this difficult field, this book tries hard to make your life less miserable. C.

Criss, R. E. (1999) *Principles of Stable Isotope Distribution*. Oxford: Oxford University Press. An enjoyable reference with examples. C.

Denbigh, K. (1981) *The Principles of Chemical Equilibrium*. Cambridge: Cambridge University Press. Many have tried to do better. I keep patching up the cover of my copy. B.

Dickin, A. (2005) *Radiogenic Isotope Geology,* 2nd edn. Cambridge: Cambridge University Press. A very well written reference work. B.

Faure, G. and Mensing, T.M. (2005) *Isotopes. Principles and Applications*. Chichester: Wiley. A scholarly treatise emphasizing the methods with abundant references. B.

Greenwood, N. N. and Earnshaw, A. (1995) *Chemistry of the Elements*. Oxford: Butterworth–Heinemann. A best-seller on the inorganic chemistry of the elements.

Killops, S. and Killops, V. (2005) *Introduction to Organic Geochemistry,* 2nd edn. Blackwell: Oxford. An enormous amount of information, well-organized and easy to read. B.

Konhauser, K. (2007) *Introduction to Geomicrobiology*. Blackwell: Oxford. A great introduction to the interface between microbiology and geochemistry. B.

Krauskopf, K. B. and Bird, D. K. (1995) *Geochemistry*. New York: McGraw-Hill. One of the most popular textbooks on geochemistry. The third edition was extensively re-written. B.

Lasaga, A. (1998) *Kinetic Theory in the Earth Sciences*. Princeton: Princeton University Press. An outstanding account of the physics that underlies geochemistry. C.

Lerman, A. (1988) *Geochemical Processes*. Malabar, Krieger. An amazing book on low-temperature geochemistry with a unique approach to physical processes. Never out of fashion. B.

Lunine, J.I. (1999) *Earth. Evolution of a Habitable World*. Cambridge: Cambridge University Press. The Earth from the Enterprise. Delightful. A.

Maczek, A. (1998) *Statistical Mechanics*. Oxford: Oxford University Press. A bargain book that leads the reader swiftly through the arcanes of elemental and isotopic fractionation. B.

McBirney, A. R. (2006) *Igneous Petrology,* 3rd edn. Boston: Jones and Bartlett. An elegant and non-conventional introduction to magmatic processes. B.

McBride, N. and Gilmour, I. (2005) *An Introduction to the Solar System*. Cambridge: The Open University Press and Cambridge University Press. A very well written tutorial, very pleasant to read. A.

McDougall, I. and Harrison, T. M. (1999) *Geochronology and Thermochronology by the $^{40}Ar$–$^{39}Ar$ method*. Oxford: Oxford University Press. An exhaustive but difficult reference of an essential geochronology technique. C.

McSween, H. Y., Jr (1999) *Meteorites and Their Parent Planets*. Cambridge: Cambridge University Press. An excellent modern textbook on these weird and fascinating objects. B.

McSween, H. Y., Richardson, S.M., and Uhle, M.E. (2003) *Geochemistry. Pathways and Processes.* 2nd edn. Columbia University Press, New York. An excellent alternative to the book you are reading, great! B.

Millero, F. J. (2005) *Chemical Oceanography,* 3rd edn. Boca Raton, CRC Press. An authoritative reference. B.

Morel, F. M. M. and Hering, J. G. (1993) *Principles and Applications of Aquatic Chemistry*. Chichester: Wiley. A particularly insightful introduction to usually difficult concepts of water chemistry. C.

The Oceanography Course Team of the Open University (1991) Oxford: Pergamon. These seven titles of very clear and wonderfully illustrated bargain books supersede any introductory text in Oceanography. I recommend particularly two of these: *Ocean Circulation* and *Seawater: Its Composition, Properties, and Behavior*. A.

Ottonello, G. (2000) *Principles of Geochemistry*. New York: Columbia. An excellent textbook focused on thermodynamics, now in an affordable paperback edition. B.

Ozima, M. and Podosek, F. (2002) *Noble Gas Geochemistry,* 2nd edn. The reference by two pioneers of the field. B.

Schubert, G., Turcotte, D.L., and Olson, P. (2001) *Mantle convection in the Earth and Planets*. Cambridge: Cambridge University Press. If you can't find something about the interior of the Earth and planets, it will surely be in this book. Difficult but luminous, indispensable. C.

Sharp, Z. (2007) *Principles of Stable Isotope Geochemistry.* Prentice Hall: Upper Saddle River. An insightful and inspiring book with a modern spirit. B.

Silbey, R.J., Alberty, R.A., and Bawendi, M.G. (2005) *Physical Chemistry,* 4th edn. Wiley: Chichester. A powerful book. Beats all my teachers. Your ignorance won't survive. B.

Stumm, W. and Morgan, J. J. (1995) *Aquatic Chemistry*. Chichester: Wiley. The undisputed bible with plentiful examples. C.

Taylor, S. R. (2001) *Solar System Evolution: A New Perspective*. Cambridge: Cambridge University Press. An extremely well-written textbook by one of the leading scholars of geochemistry. A.

Taylor, S. R. and McLennan, S. M. (1985) *The Continental Crust: its Composition and Evolution*. Blackwell: Oxford. The ultimate read on the geochemistry of continental crust. B.

Valley, J. W. and Cole, D. R. (2001) *Stable Isotope Geochemistry.* Washington: Mineralogical Society of America. A set of varied and very high-quality review papers. B.

Wayne, R.P. (2000) *Chemistry of Atmospheres,* 3rd edn. Oxford: Oxford University Press. An enormous amount of information on modern issues without the hassle of atmospheric dynamics. B.

Wulfsberg, G. (2000) *Inorganic Chemistry.* Sausallito: University Science Books. Illuminating on some of the most difficult concepts of the field. B.