

GEOLOGY 1122 HISTORY OF GLOBAL CHANGE

WALKER/PATINO-DOUCE FALL 08

Reading: Chap. 10, pp. 237-240

LECTURE 2 Chemical Cycles on Earth

Part 2: Oxygen isotopes on Planet Earth and how geologists/paleontologist use them to understand global climate change/environmental change

- i. Where does the data for Oxygen isotopes come from?**
- ii. What is the $^{18}\text{O}/^{16}\text{O}$ ratio, and what can it tell us?**
- iii. How $^{18}\text{O}/^{16}\text{O}$ works in the ocean/land-glacial ice system on Earth**
 - a.) evaporation**
 - b.) precipitation**
 - c.) Fluctuations between "isotopically-heavy oxygen isotopes and those that are isotopically-light": what does this mean?**