



Figure 5.14. A tank and siphon analogy for secular equilibrium. In this analogy the number of atoms (N) of parent (P) and daughter (D) isotopes is proportional to the amount of water in the two reservoirs. The decay half lives of the parent and daughter isotopes are proportional to the hose diameter. If N_P remains constant or nearly so, the flow rate, which is proportional to the reservoir volume times the hose diameter, $N\lambda$, must be the same from both tanks. (See text for further explanation.)