

PROXY SYSTEM MODEL: SPELEOTHEM $\delta^{18}\text{O}$

Simulated MTM Spectra for each transformation, Hidden Cave, NM

INPUTS:
temperature
precipitation
water isotopes

$P, T, \delta^{18}\text{O}_P$

SENSOR:
precipitation weighting
karst effects (τ)

$$f(t) = \delta^{18}\text{O}_{\text{CALCITE}} = \sum p \cdot \delta^{18}\text{O} / \sum p$$

$$g(t) = H(t) \frac{1}{\tau} e^{-t/\tau}, h(t) = g * f$$

ARCHIVE:
accumulation rate \sim
layer depth

OBSERVATION:
tie-point dating
isotope analysis

Bchron

