

*Central Valley Café Scientifique presents:*

**Chemical-weathering rates of aquifers and soils:  
using sediment-age-dating and geochemical mass-  
balance techniques to understand how  
groundwater gets its geochemistry**

Presented by Dr. Beth Weinman



An important aspect of sourcing and maintaining our water supply deals with understanding how usable fresh-water resources gain their natural geochemistries. In not knowing from exactly where groundwater is gaining its geochemistry, the goal of this work tries to identify from where groundwater is gaining most of its geochemistry. In South and Southeast Asia, where many developing countries have natural arsenic contamination in their groundwaters, some work suggests that arsenic is sourced from an aquifer's overlying soils, while others surmise it to be due to weathering of the underlying aquifer matrix. Based on past research showing that "younger" material weathers faster than "older" material, one objective of this work was to test whether aquifer age was a determinant parameter in arsenic groundwater chemistry.

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<u>Date</u>	<u>Location</u>	<u>Time</u>	<u>Dinner will be served from 6 PM</u>
<b>April 1, 2013</b>	<b>Café Via</b> 6640 N Blackstone, Ste 106 Fresno, CA 93710	<b>7 PM</b>	Price: \$12.00 per person; beer and wine extra