

# Chemistry of San Andreas Fault may offer clues to earthquake mysteries

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Scientists have obtained core samples from deep inside California's San Andreas Fault for the first time, a finding that may lead to a better understanding of the underground molecular events associated with earthquakes, according to an article scheduled for the Oct. 22 issue of *Chemical & Engineering News*, ACS' weekly newsmagazine.

The 800-mile-long fault that bisects California is infamous as the source of the region's most devastating earthquakes. Conventional sampling of the fault yields slurries of rock chips that are fragmented and difficult to study.

In the article, C&EN senior editor Elizabeth K. Wilson describes how new technology borrowed from the oil-drilling industry allows scientists to reach more than 2 miles into the earth to bring up virtually intact core samples from the San Andreas Fault Observatory at Depth in Parkfield, Calif.

The core samples will provide an unprecedented picture of the minerals and fluids that are produced at an earthquake source, including new information about the chemistry behind plate movements and fluid flow in fault zones, the writer notes.

"Earthquake scientists around the world have been invited to a "sample party" at Stanford University in December, where they'll get a chance to inspect the cores and request pieces for them to study," Wilson writes.

Source: ACS

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