ICP analysis of the fault gouge zone in the GSJ 750m drilling core penetrating the Nojima Fault

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The Nojima Fault gouge in the GSJ 750m drilling core has been analyzed by ICP and XRD analyses. As a result, high concentrations of CaO and elements of the yttrium group were detected from the fault boundary. The high concentration of CaO may be attributed to anomalously discharged groundwater with large amounts of Ca ions, which occurred along the Nojima Fault just after the Southern Hyogo Prefecture Earthquake (Sato and Takahashi, 1997). Furthermore,the data from Pb isotopes, 238U and 232Th indicate that no Rn anomaly is detected from the fault gouge zone, and that the U- and Th-series in the fault gouge zone have been in disequilibrium states. The disequilibria may be attributable to the migrations of 238U and 232Th, and/or Pb isotopes.