

SCG084-11

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## Analysis of the tectonic history of Mizunami area II. Paleo-stress analysis of faults.

Masahiko Tagami<sup>1\*</sup>, Tadahiko Tsuruta<sup>1</sup>, Toshiyuki Matsuoka<sup>1</sup>

<sup>1</sup>Japan Atomic Energy Agency

Fault property and its extent is greatly influence the underground water-flow. It is important to understand the local tectonic history to predict past fault activity. This draft reports paleo-stress analysis of the fault which locate in the main shaft of Mizunami Underground Research Laboratory. Horizontal slicken-lines are widely observed on the fault gouge plane. The sense of movement was judged in every gouge sample. The multiple inverse method (Yamaji, 2000) was used to analyze paleo-stresses. The results show horizontal N-S trend maximum main stress and E-W trend minimum main stress. It was thought that the fault has moved right-laterally when the basic dyke intrusion was occurred at 65 M. At that time, north-western directed Pacific plate subduction caused compressive paleo-stress to east-end of Eurasia Plate.

Keywords: Mizunami underground research laboraory, fault, paleo-stress, multiple inverse method, slickenline, tectonic history