

Latest methods for inferring stress conditions from dikes and mineral veins

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Paleostress analysis using parallel dike swarms has been popular since the 1970s. Methodological development has been made since the 1980s for the analysis. Now, stress conditions can be determined not only from the attitudes of parallel dikes but also from those of the dikes whose poles make a girdle. The stress axes and stress ratio optimal for a group of dikes can be determined with 95% confidence limits (Yamaji et al., 2010). And, if there are dikes formed by different stress conditions, the statistical inverse method of Yamaji and Sato (2011) distinguishes and infers the conditions, and evaluates the probability that a dike was formed under each of the conditions. The methodological development is reviewed in this paper.

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