Triaxial stress state deep in orogenic belts: an example from Turkey

toshiaki masuda[1]; Shotaro Nakayama[2]; Nozomi Kimura[3]; Kumiko Onodera[1]

[1] Inst. Geosci., Shizuoka Univ.; [2] Inst. Geosciences, Fac. Sci., Shizuoka Univ.; [3] Institute of Geosciences at Shizuoka University

A rare metachert pebble providing an opportunity to perform stress analysis in two orthogonal orientations on the foliation surface is analysed by the microboudin method to infer the triaxial stress state during microboudinage. Stress parameters proportional to the far-field differential stress were determined for the two orientations, and the ratio of the stresses in the two orthogonal orientations (sigma1-sigma2)/(sigma1-sigma3) was calculated to be 0.6, indicating that sigma2 lies approximately half way between sigma1 and sigma3