



Boron contents of the altered oceanic crust from the Oman ophiolite

K. Yamaoka (1), H. Kawahata (1), K. Nagaishi (2) and T. Ishikawa (3)

(1) Ocean Research Institute, The University of Tokyo, (2) Marine Works Japan Ltd., (3) Kochi Institute for Core Sample Research, JAMSTEC (yamaoka@ori.u-tokyo.ac.jp)

Boron contents were analyzed for the hydrothermally altered rocks of a complete section through the Wadi Fizh oceanic crust in the Oman ophiolite. Boron content in the altered oceanic crust is strongly dependent on temperature and water/rock ratio during alteration. It has been postulated that altered oceanic crust might be an important source of water and other volatile species during subduction. Boron could be a powerful tracer for fluid contribution from subducting oceanic slab to overlying mantle wedge where island-arc magma forms. However, the vertical distribution of boron contents through the successive sequence of oceanic crust has never been determined. The present data provide new insight into the boron geochemical cycle.