

## Early Miocene parallel dike swarm along the eastern coast of the Tsuruga Bay, Fukui Prefecture, central Japan

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An early Miocene parallel dike swarm of andesite and porphyrite has been found along the eastern coast of the Tsuruga Bay in Fukui Prefecture, central Japan. This parallel dike swarm has a dominant strike of NE-SW, and intrudes the Mino accretionary complex of Mesozoic age. The porphyrite has been dated at about 21 Ma by a previous fission track study. In this study we determined K-Ar ages of the andesite: two ages of 18.94  $\pm$  0.49 Ma and 18.99  $\pm$  0.48 Ma were obtained for the same groundmass fraction. Thus, in the middle of the early Miocene (approx. 21-19 Ma), the studied area was under a paleostress field with a maximum horizontal contractile stress axis ( $\sigma$ -Hmax) trending NE-SW and a minimum contractile stress axis ( $\sigma$ -3) trending NW-SE, both in the present geographic coordinate. Uplifting is deduced in the same period, from the fact that early Miocene intrusive bodies of granodiorite (oldest, plutonic), porphyrite (intermediate, hypabyssal), and andesite (youngest, volcanic) coexist today at the level of exposure. It is probable that this uplifting event caused an early Miocene regional unconformity in the Japan Sea side of the Japan arc.