Chemical and Sr-Nd isotope compositions of basic metamorphic rocks in the Hida belt, Japan

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We determined chemical and Sr-Nd isotope compositions of basic metamorphic rocks (410-420 Ma) and basic dikes (320-340 Ma) in the Hida belt, Japan. The basic metamorphic rocks and basic dikes have chemical characteristics indicating calc-alkaline igneous rocks.Incompatible trace element compositions of both basic rocks suggest typical island arc or continental margin tectonic setting with subduction zone. Sr and Nd isotoe ratios of both rocks are similar and range in 0.7048-0.7061, -0.5 to +3.9, respectively. These results lead to a conclusion that basaltic magmas for the basic igneous rocks were derived from relatively enriched mantle under the continental margin or continental island arc tectonic environment.