Provenance of detrital grains in the sandstones from the Japanese Islands

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Ages of monazites in the sandstones from the Japanese Islands were studied. Monazites from most of the sandstones are bimodal in age. Exceptional ones are from Tertiary zone of the Shimanto belt, Maizuru and ultra-Tamba belts and the northern Hokkaido.

Monazites in the sands from major rivers in the East Asia were also analyzed to compare with those in the sandstones from the Japanese Islands. Based on the comparison of the monazite data, it is concluded that detrital grains in most of the sandstones from the islands were derived from the Korean Peninsula. Detritous in the Tertiary zone of the Shimanto belt was derived mostly from drainage basins of the Yangtze and Yellow rivers, whereas other exceptional ones were mainly from a basin of the Amur river.

Ages of detrital monazites in the sandstones from the Japanese Islands were studied to elucidate their provenance. Monazites from most of the sandstones are bimodal in age. Peaks are usually 100-300 Ma and 1800-1900 Ma. Exceptional ones are from Tertiary zone of the Shimanto belt, Maizuru and ultra-Tamba belts and the northern Hokkaido.

Monazites in the sands from major rivers in the East Asia were also analyzed to compare with those in the sandstones from the Japanese Islands. Each river has a characteristic distribution in monazite age. Based on the comparison of the monazite data, it is concluded that detrital grains in most of the sandstones from the islands were derived from the Korean Peninsula. Detritous in the Tertiary zone of the Shimanto belt was derived mostly from drainage basins of the Yangtze and Yellow rivers, whereas other exceptional ones were mainly from a basin of the Amur river.