Redox history of the Phanerozoic ocean based on the Re-Os ages of Besshi-type massive sulfide deposits in the Sanbagawa Belt

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Besshi-type Cu deposits are tabular, volcanogenic massive sulfide deposits which are usually associated with mafic volcanic rocks or their metamorphic equivalents. Numerous Besshi-type deposits occur in the Sanbagawa Belt, however, there is no data to constrain the depositional age of Besshi-type deposits due to disturbance of the Sanbagawa high-P/T metamorphism. Re-Os geochronology is applied to 10 Besshi-type deposits in the Sanbagawa Belt to constrain the sulfide depositional age. These Re-Os data provide new insight into the genesis of Besshi-type deposits, which is closely related to a redox history of paleocean.