

An abrupt change of marine Os isotopic compositions across the Permian/Triassic boundary

Yasuhiro Kato[1]; Takazumi Nishiuchi[1]; Katsuhiko Suzuki[2]; Junichiro Kuroda[2]; Kiyoko Kuwahara[3]

[1] Geosystem Eng., Univ. of Tokyo; [2] IFREE, JAMSTEC; [3] none

We report a stratigraphic change of Os isotopes across the Permian/Triassic boundary (PTB). Our samples studied here were obtained from the Ubara area by completely continuous sampling. The $\text{Re}/\text{Al}_2\text{O}_3$ and $\text{Os}/\text{Al}_2\text{O}_3$ ratios significantly increase in the siliceous mudstones immediately prior to PTB, co-varying with U/Th and $\text{V}/\text{Al}_2\text{O}_3$ ratios. This suggests that both Re and Os precipitated in the reducing marine environment. The initial $^{187}\text{Os}/^{188}\text{Os}$ values reconstructed from the Ubara section show an abrupt increase from 0.6 to 1.0 during the ~ 0.4 Myr interval across the PTB.