

Multivariate Analysis on Geochemical Data from the Permian Brachiopods

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Discriminant analysis was performed to compare samples from two populations: one representing altered part and another characterizing unaltered part of 62 specimens of the Permian brachiopod shells. The both parts of the fossil were confirmed by the reaction of cathode-luminescence. The fossil was expected to have any information on climate record at 251 million years ago when the largest mass extinction in the Paleozoic occurred. For the analysis, data consist of carbon and oxygen isotope compositions of the fossil shells. The obtained identification rate was 82 %, which shows that those isotope data could efficiently separate the altered part from the unaltered part.