

## Maceral composition for an environmental indicator of muddy sediments and application to the sequence stratigraphy

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Maceral compositions vary with sedimentary environments, such as fluvial, Pro-delta, shelf, slope and basin floor, because of changes in land-derived organic matter supply. Maceral composition in muddy sediments is useful tool for the sedimentary environment analysis of the Miocene to Pleistocene backarc basin. Systems tracts are variable in maceral composition, consisting of ratios of herbaceous, woody-coaly and amorphous kerogen. Transgressive systems tract is characterized by high amorphous kerogen contents. The herbaceous kerogen content is higher in the lowstand systems tract than in the transgressive and highstand systems tracts. Maceral composition in muddy sediments is also a good tool for sequence stratigraphic analysis of the backarc basin in Japan.