



Figure S4: Oriented X-ray diffraction patterns of clay and non-clay minerals in the Lower Cretaceous sedimentary rocks cement of the Northern Yamato Ridge.

(a) kaolinite (Kln) with illite-smectite (Ilt-Sme), swelling chlorite (SCHl) (NL), illite (Ilt), calcite (Cal), quartz (Qz), and plagioclase (Pl).

(b) rectorite (Rec), illite (Ilt), analcime (Anl), calcite (Cal), quartz (Qz), and plagioclase (Pl) [25,26].

1 – air-dried, 2 – glycol-saturated, 3 – heated at 550°C.

Number represents diffraction peak in nm.