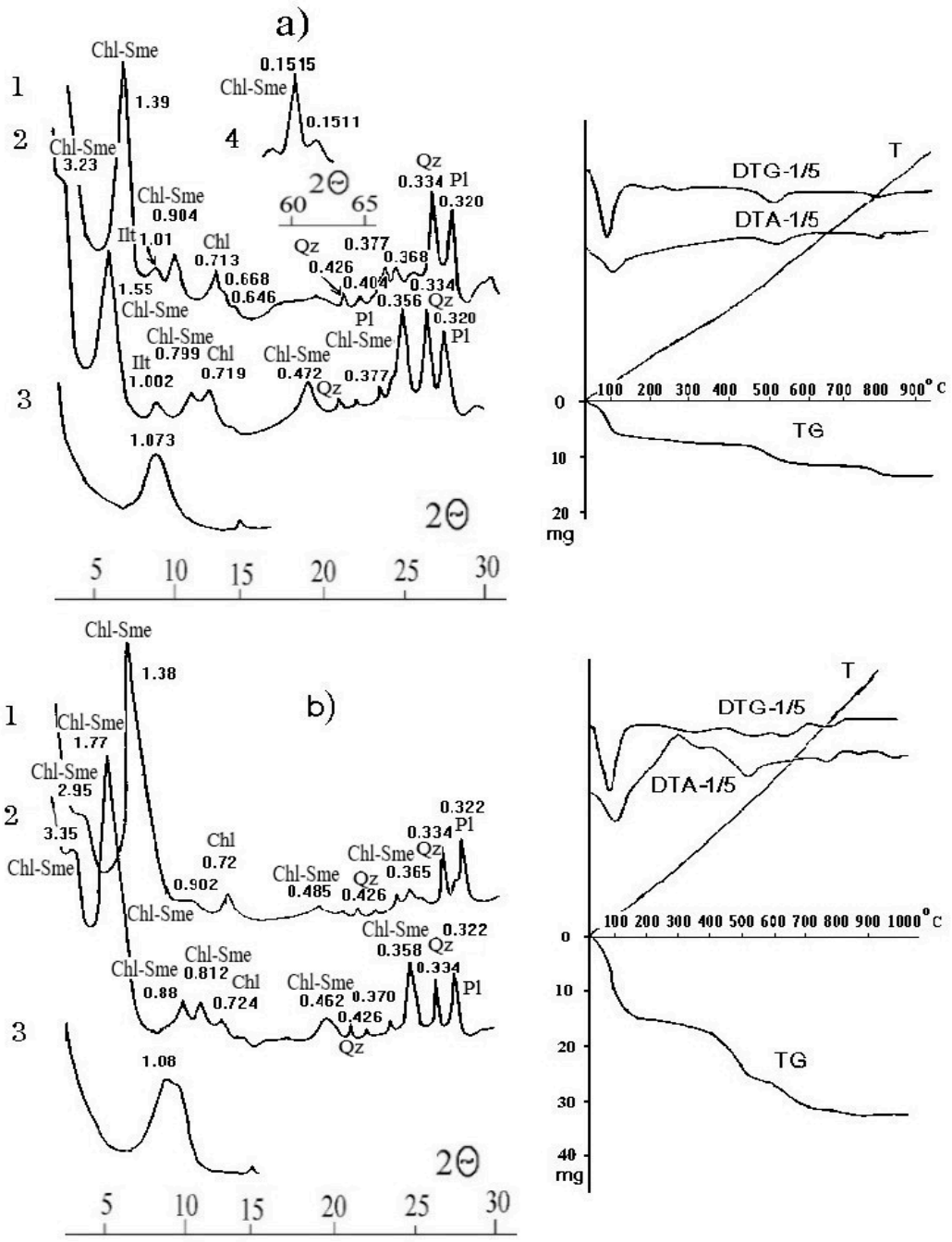

Figure S5: Oriented X-ray diffraction patterns and thermograms of mixed-layer chlorite-smectite minerals in the Lower Cretaceous sedimentary rocks of the Southern Yamato Ridge.

(a) mixed-layer chlorite-smectite mineral (Chl-Sme) with prevalence of chloritic packages with admixture of chlorite (Chl), illite (Ilt), plagioclase (Pl) and quartz (Qz). (b) mixed-layer chlorite-smectite mineral (Chl-Sme) with prevalence of smectitic packages with admixture of chlorite (Chl), plagioclase (Pl) and quartz (Qz) [25,26]. 1 – air-dried, 2 – glycol-saturated, 3 – heated at 550°C, 4 – diffraction peak 060. Number represents diffraction peak in nm. DTG=differential thermogravimetric curve, DTA=differential thermal curve, T=temperature curve, TG=thermogravimetric curve. Thermographic curves are typical for smectite [29].