

Fig. 1. Sketch of the TLM at clay surface from Leroy and Revil [1]. (a) M⁺ represents a metal cation (e.g., Na⁺) and A⁻ an anion (e.g., Cl⁻). OHP is the outer Helmoltz plane. The *d*-plane is assimilated to the shear plane; i.e., $\varphi_d \approx \zeta$, where ζ is the zeta potential arising in electrokinetic phenomena. The β -plane and o-plane are respectively the mean plane in of Stern layer and the surface of the clay particle. (b) Sketch of the electrical potential in the cases of truncated and untruncated diffuse layers.