

The adsorption of pharmaceutical products (PPs) onto kaolinite and raw and sodium-exchanged montmorillonite was investigated in real wastewater effluents (WWE). Whereas cationic PPs were mostly adsorbed through cation exchange, the adsorption of neutral and anionic PPs appeared to be controlled by the nature of compensating inorganic cations and/or the simultaneous adsorption of organic moieties onto clay minerals. The sodium-exchanged montmorillonite displayed intermediate adsorption properties, highlighting the key role of divalent inorganic cations in the adsorption of non-cationic PPs and other organic molecules.