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Seasonal variations of δ^{37}Cl of waters from Akyatan Lagoon, Turkey

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We report the first δ^{37}Cl data for surface waters of the Akyatan lagoon, Turkey, from 12 stations sampled over the period 2005 to 2006. The recorded variation of δ^{37}Cl values is fairly small, from -0.4 to +0.6 ‰ vs. SMOC, though the environmental conditions were highly variable seasonally. It was the purpose of this study to record seasonal variations of δ^{37}Cl in chlorine ion of surface waters. The salinity of the studied waters varied from 2.8 to 95 g/L and the δD vs. δ^{18}O plot significantly departures from the World Meteoric Water Line (WMWL) with a slope of 5.43$\pm$0.19. Chlorine isotopes indicate a weak positive correlation between δ^{37}Cl and δD of water and its salinity. This may be due to mixing between seawater and distinct sources of freshwater. The small spread of obtained δ^{37}Cl results demands enhanced precision of analysis and careful sample preparation.