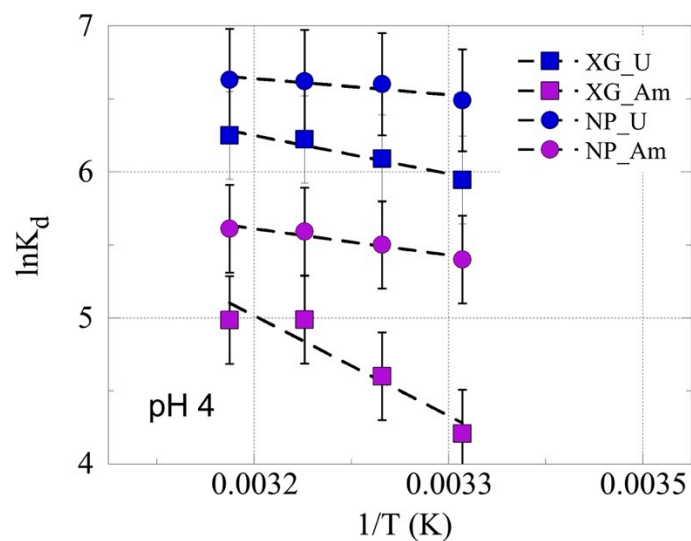
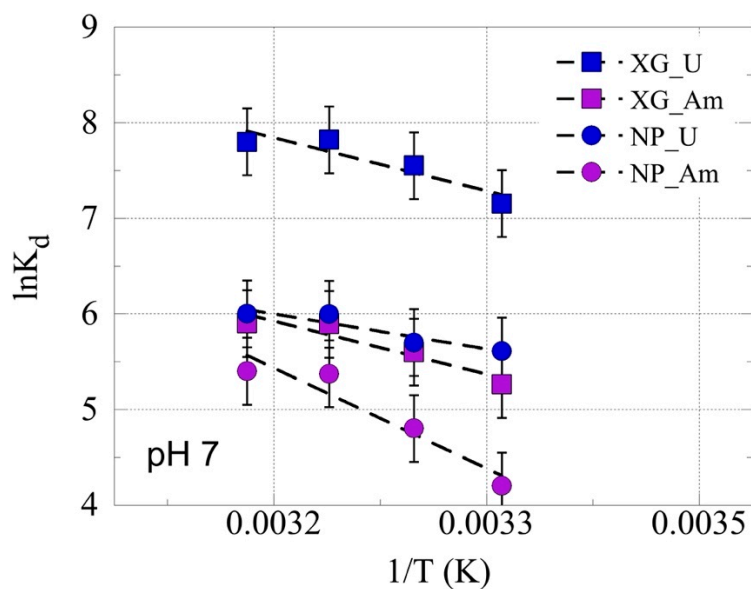


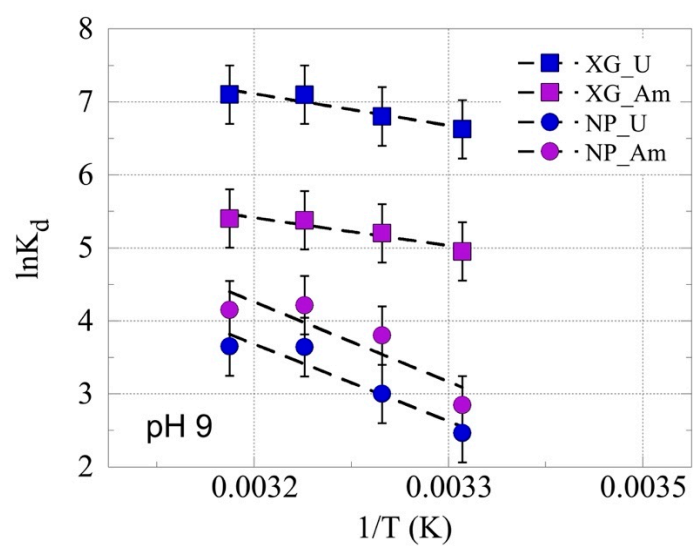
## Supplementary Information



**Figure S1.**  $\ln K_d$  vs  $1/T$  of the actinide ion adsorption by nanoparticles (NP) and xerogels (XG) at ultra-trace levels at pH 4. Experimental conditions: 10 mL of the solution, with 0.5 Bq/mL for both U-232 and Am-241 tracers, at different temperatures (25, 30, 35, 40 °C).



**Figure S2.**  $\ln K_d$  vs  $1/T$  of the actinide ion adsorption by nanoparticles (NP) and xerogels (XG) at ultra-trace levels at pH 7. Experimental conditions: 10 mL of the solution, with 0.5 Bq/mL for both U-232 and Am-241 tracers, at different temperatures (25, 30, 35, 40 °C).



**Figure S3.**  $\ln K_d$  vs  $1/T$  of the actinide ion adsorption by nanoparticles (NP) and xerogels (XG) at ultra-trace levels at pH 9. Experimental conditions: 10 mL of the solution, with 0.5 Bq/mL for both U-232 and Am-241 tracers, at different temperatures (25, 30, 35, 40 °C).