

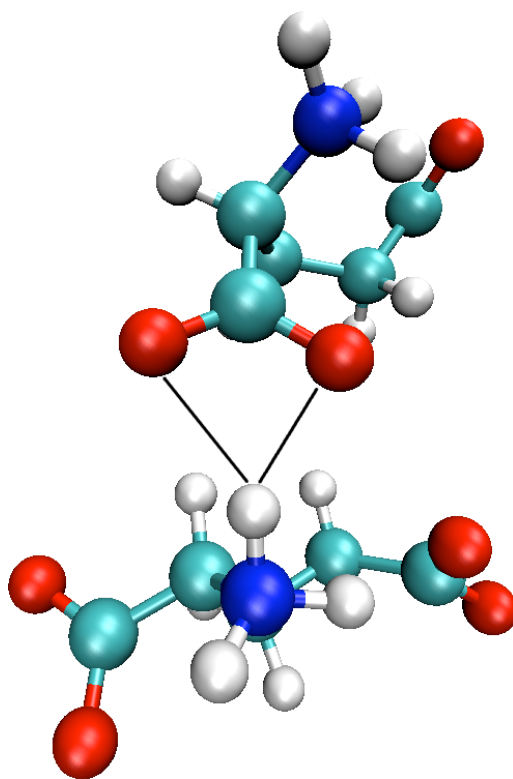


Figure S1: Bifurcated hydrogen bond between -NH_3^+ group and C_α carboxylate group (CC-OC_2^-).

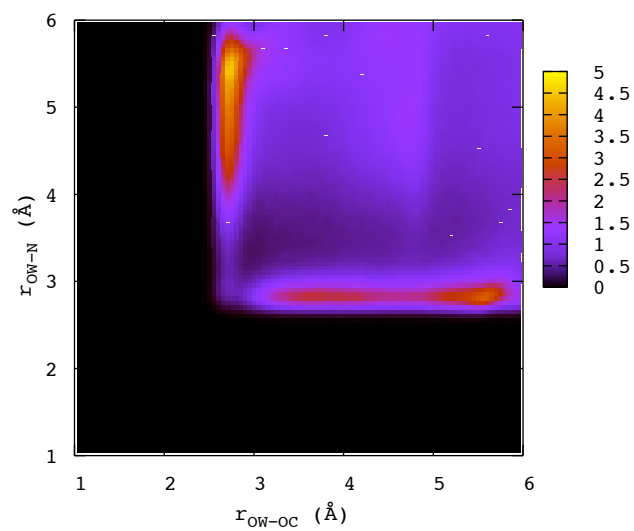
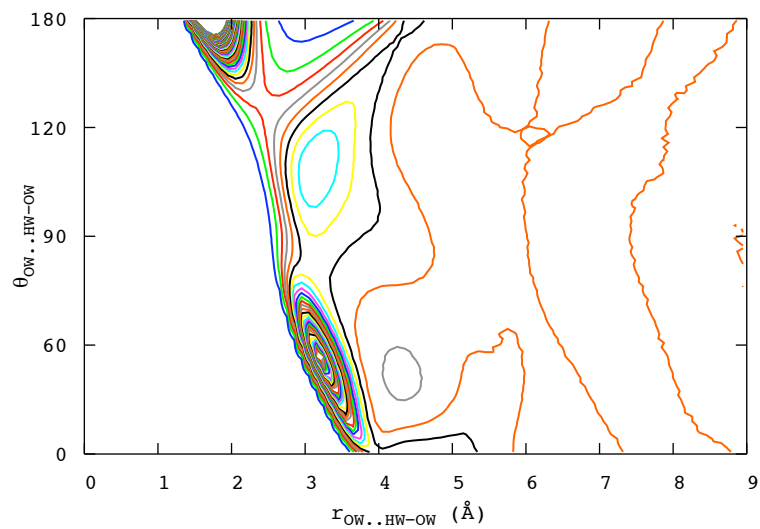
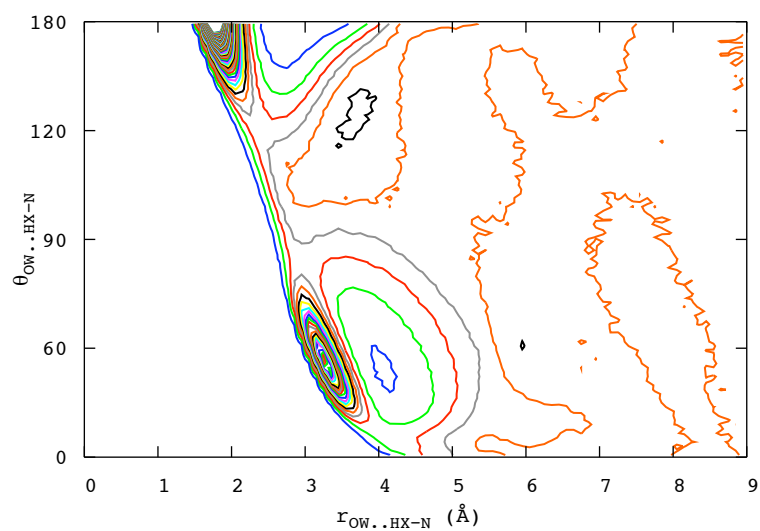


Figure S2: 2D radial-radial distribution correlating the OW-OC distance with the OW-N distance such that the OC and N atoms are within the same molecule (as shown in the illustration in figure ??). This is for the F3C solution, with similar results obtained for SPC/E and TIP3P.



(a) F3C OW...HW-OW



(b) F3C OW...HX-N

Figure S3: Comparison of the 2D radial-angular distribution for a water-water hydrogen bond, OW...HW-OW, and for the glutamate-amine-water hydrogen bond, OW...HX-N (from the F3C solution, with similar results obtained for SPC/E and TIP3P).

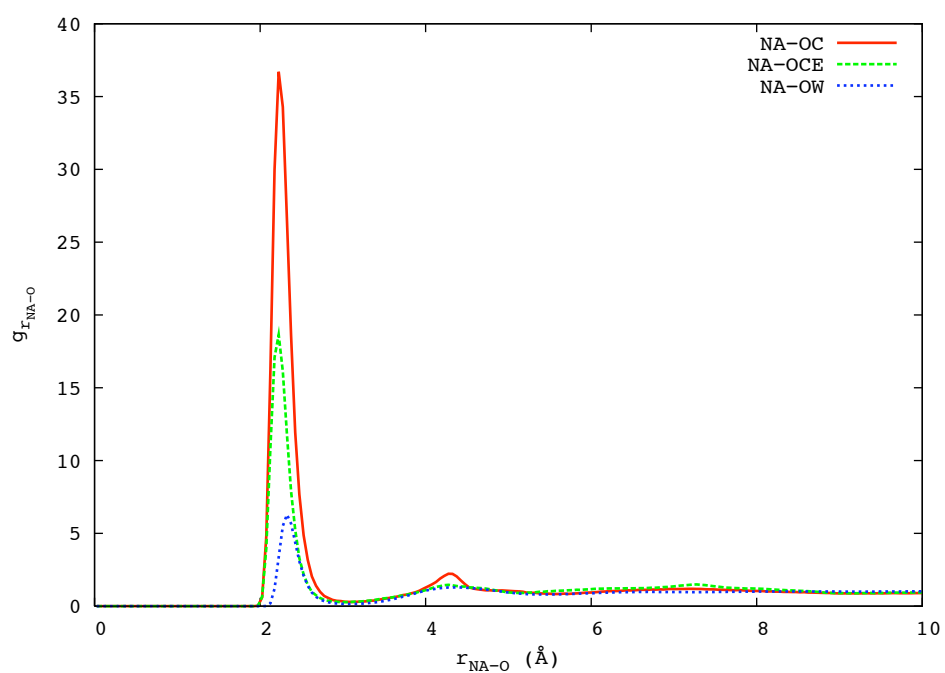


Figure S4: Radial distribution functions for sodium with the two carboxyl groups of glutamate (from the F3C solution, with similar results obtained for SPC/E and TIP3P).