Supporting Information: Lithium ions solvated in helium

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Figure 1: (top) Number of He atoms inside a sphere of radius $r$ around the Li$^+$ ion in He$_n$Li$^+$ droplets with $n = 8$, 11, 14 and 17. The first solvation layer around the ionic impurity is formed by 8 He atoms as shown in the above panel with all distributions sharing the area in shadow covering up to $r \sim 3$ Å. Further confirmation is observed in the angular distribution in the bottom panel where the same pattern with the three features for the corresponding He–Li$^+$–He angles in the He$_2$–Li$^+$ clusters is found for the $n = 11$, 14 and 17 cases.