Inter-segmental hopping movie caption:

A movie depicting the inter-segmental hopping event shown in Figure 2a of the main text. The movie features a segment of a simulation trajectory that spans 160 ps, which is shown forwards and then backwards. The simulation trajectory is smoothed by time-averaging the positions of the atoms over 5 ps. Atoms are shown if they are within 8 Å of the lithium cation.

Intra-segmental hopping movie caption:

A movie depicting the intra-segmental hopping event shown in Figure 2b of the main text. The movie features a segment of a simulation trajectory that spans 110 ps, which is shown forwards and then backwards. The simulation trajectory is smoothed by time averaging the positions of the atoms over 5 ps. Atoms are shown if they are within 8 Å of the lithium cation.