Figure 8: Action-minimising paths for the cuboctahedra. The cuboctahedra showed different AMPs above the SD–PSD threshold from the rest of the shapes. Above the SD–PSD threshold, and up to 66 nm, the lowest energy state for the cuboctahedron is a HAV. Transitions between HAVs (left column) occur via a distortion (g) and structured rotation (j) of the vortex core. The energy barrier is an IAV (j). The dIAV along the AMP (g) sits in its own LEM, forming a three-bump energy barrier (a). The dIAV becomes the lowest energy from 66 nm. Transitions between dIAVs (center column) form a single bump energy barrier (b). The transition is a structured rotation of the distorted vortex, keeping attached to the same surface (e, h, k). Once the lowest energy is an EAV, transitions between these (right column) occur via a distortion and structured rotation of the vortex core. The energy barrier is an IAV (i). Colour represents the MCA energy normalised by $|K_1|$. The energies along the AMPs are plotted in units of K_BT, with $T = 300$ K. The right column of Video 1 (supplementary material) shows these transitions.