

Title: Supplementary Data 1:

Descriptions: Sequences of scaffold DNA and staple oligonucleotides.

Title: Supplementary Movie 1:

Descriptions: Domain motions of the twist tower object identified via 3D classification.

Title: Supplementary Movie 2:

Descriptions: Breathing motions of the pointer v2 object identified via 3D classification, cross-sectional view,

Title: Supplementary Movie 3:

Descriptions: Breathing motions of the pointer v2 object identified via 3D classification, helical view.

Title: Supplementary Movie 4:

Descriptions: Illustration of multi-domain refinement and focussed scanning refinement

Title: Supplementary Movie 5:

Descriptions: Illustration of cascaded relaxation procedure for a region within the twist tower object.