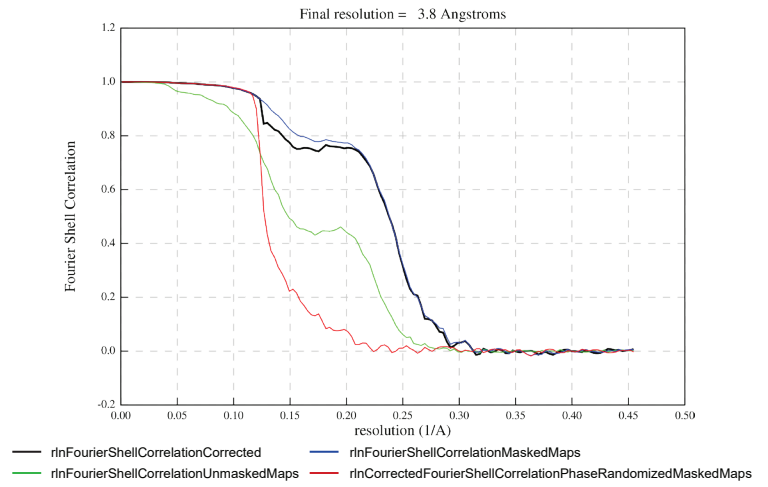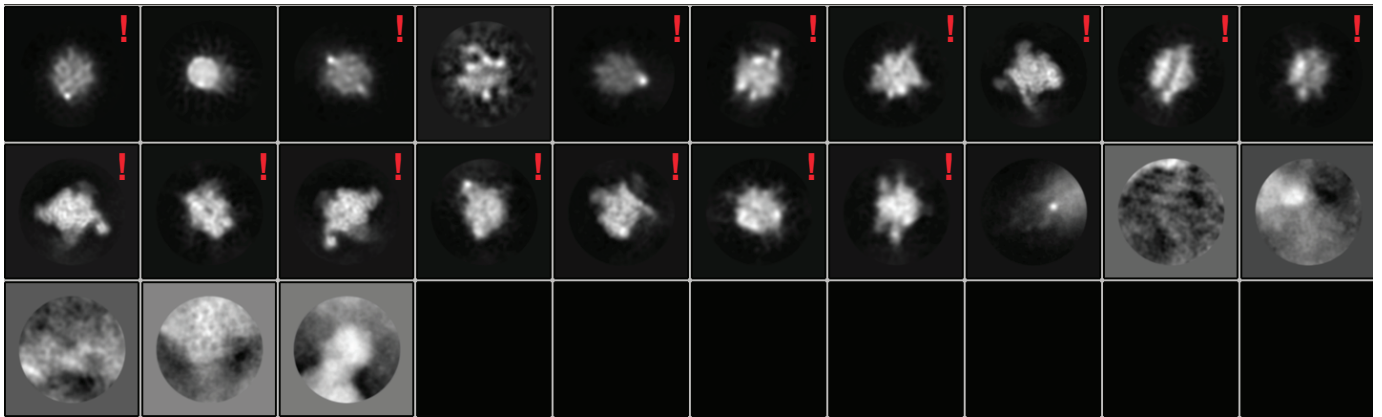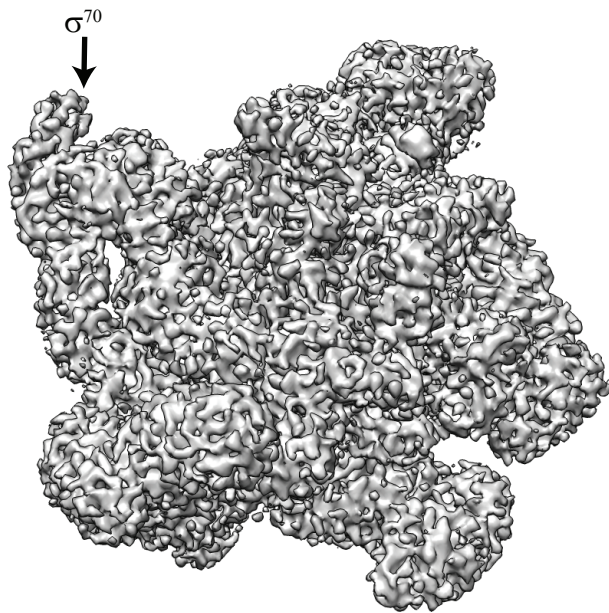**Fig. 1.** A representative cryo-EM image of the *E. coli* RNAP initiation complex primed with a cap. The image was obtained on Krios2 at NYSBC.

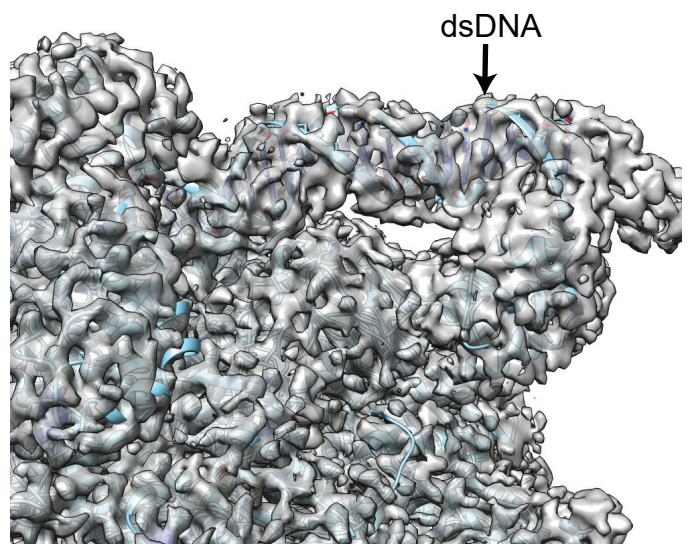Final resolution = 3.8 Angstroms

Fig. 3. Graph showing FSC of half-maps after 3D refinement.

Fig. 2. 2D classification of 109,000 particles after initial cleanup. Particles from marked 2D classes were used for 3D reconstruction.

σ^{70}

Fig. 4. Final cryo-EM map of the *E. coli* transcription initiation complex. The map shows RNAP bound to the σ^{70} factor.

dsDNA

Fig. 5. Fragement of the cryo-EM map showing a good fit of the RNA polymerase and template DNA models.