



Supplementary figure 1. A) Schematic of the lesion-DNA that have provided high-quality EM maps (3bp gap and fluorescein); we propose to extend our work to crosslinked thymine-dimer damaged DNA. **B)** EM reconstructions of UvrA bound to fluorescein damaged DNA yielded volumes at resolutions of ~3.2 – 3.3 Å. **C)** 3.24 Å EM map superimposed on the current (and incomplete) model of the UvrA-DNA complex. Dimeric UvrA model is colored by sub-domain and in the legend. The DNA is colored purple. The map is contoured to emphasize the density around the DNA; at this contour not every domain of UvrA is clearly visible.