



Figure S8: Formation gels for representative DAO-E and DAE-E tiles. Dots above each lane indicate which combination of strands was included in the annealing reaction. In most lanes, strands associate according to designed interactions only; e.g., in the DAO-E tiles, strands 2 and 4 run separately, while strands 1 and 2 run as a single heavy species. The red box indicates the lane containing all species, which should therefore form double-crossover molecules running as a single band. DAE-E formation gels are shown for tiles with different sticky ends but the same cores as VE-00 and SE-10-15J. Specifically, VE2 (26-mer, 252260 /M/cm) CTGGTTCCGAGCACCGAATGGATACC, VE4 (26-mer, 251060 /M/cm) TGAGGTTCAATGTGGCGTTCATACCT, and SE4 (26-mer, 251920 /M/cm) TGAGGAGTTTCGTGGTCATCGTACCT were used in place of the correspondingly-numbered strands.