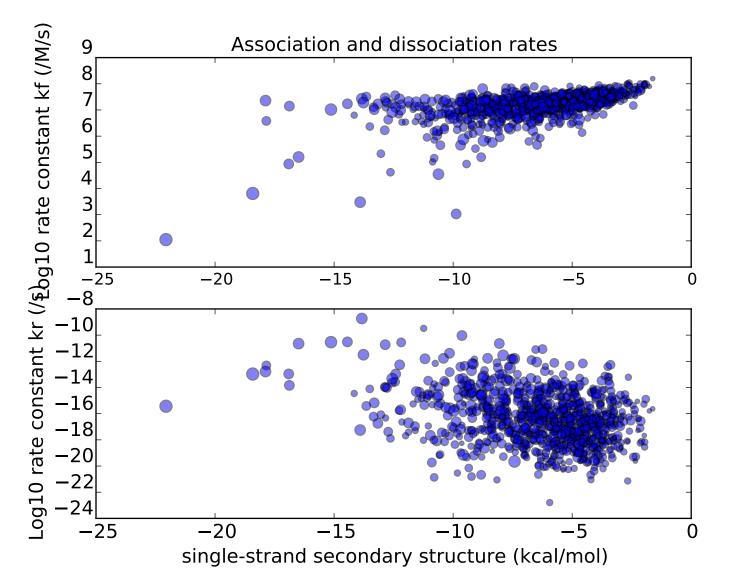
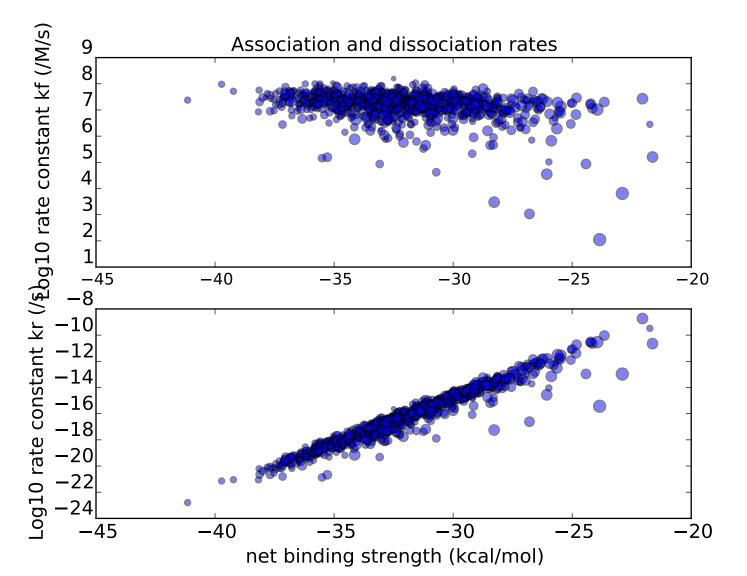
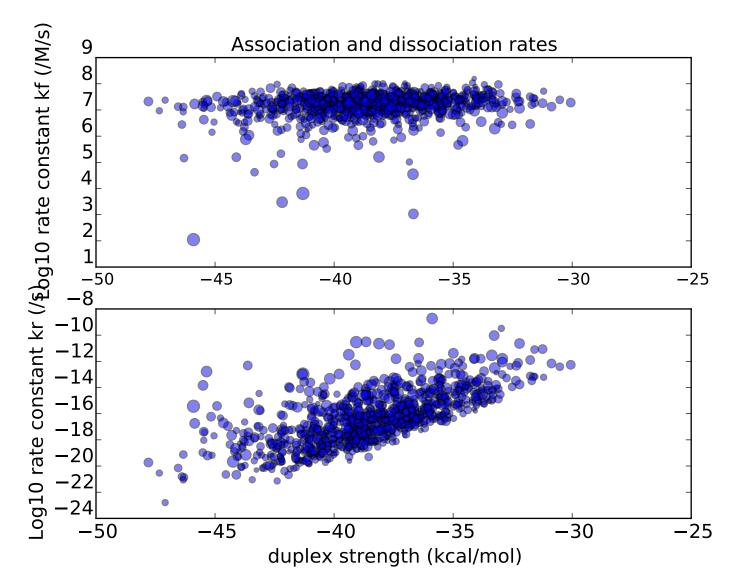
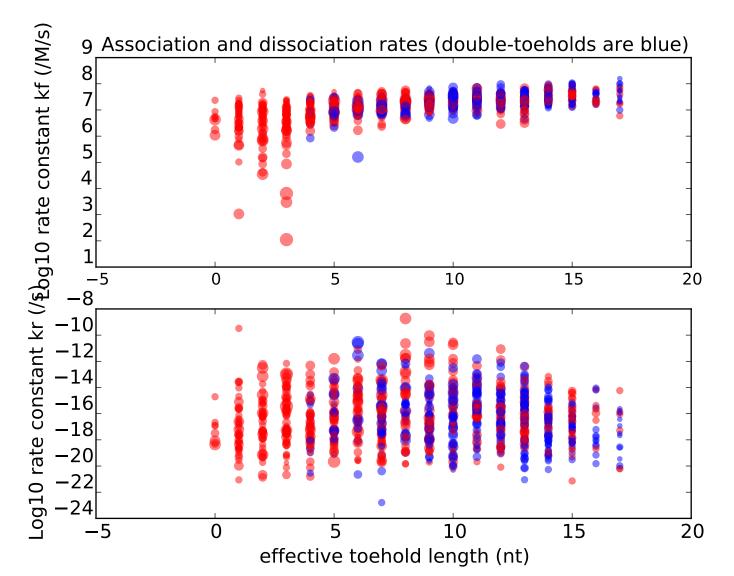


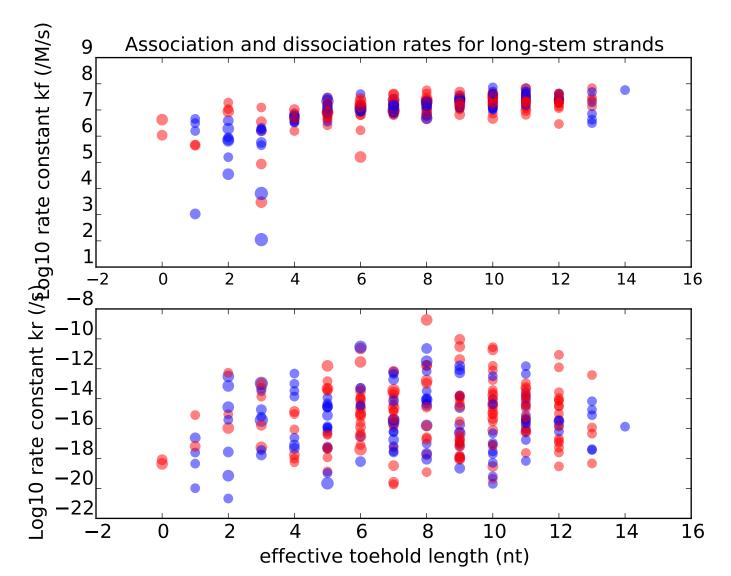
Slowest association: CAGCGCGGTGGTCACCCTACCGCGG at 111.67 /M/s Fastest dissociation: GTTTTGTGCCTCAATTCAATTGAGG at 1.85667e-09 /s Slowest dissociation: TGTGACGGGGGGAACGGCGCGGTGC at 1.61268e-23 /s 0.25 frequency of dissociation rates 0.20 0.15 0.10 0.05 0.00 -20-18-10-24-22-16-14-12Log10 rate constant kr (/s)

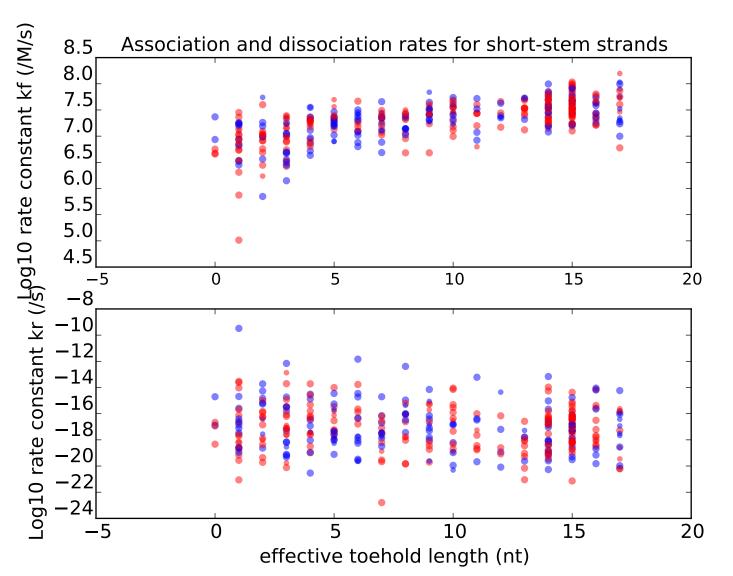


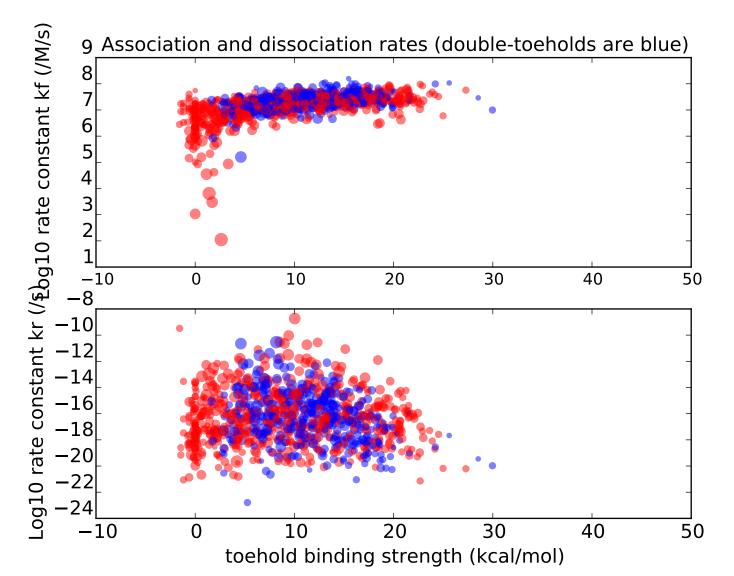


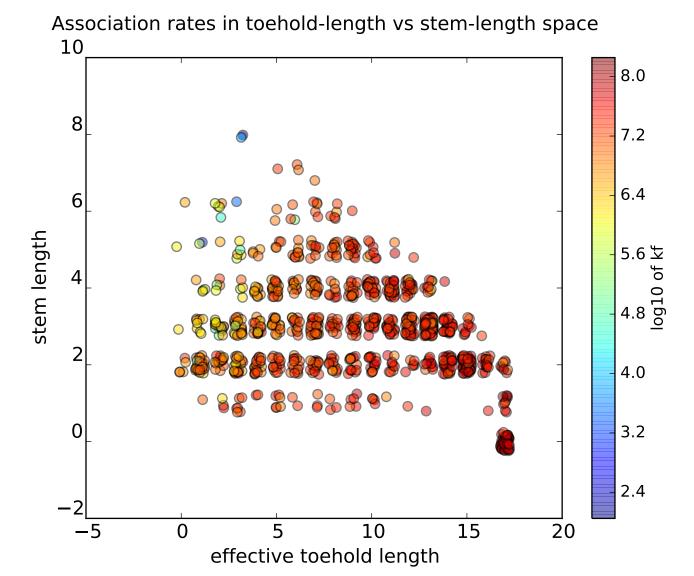












Disassociation rates in toehold-length vs stem-length space 10 -108 -126 -14stem length -18-200 -22 15 20 10 effective toehold length

Association rates in toehold-strength vs stem-strength space 12 8.0 10 7.2 6.4 8 stem strength 6 4.0 2 3.2 2.4 50 -1010 20 30 40

toehold strength

Disassociation rates in toehold-strength vs stem-strength space 12 -1010 -128 stem strength -14|-| 91 | 10g10 of kr 6 -18-20**-22** 10 20 40 50 -1030

toehold strength