**Supplementary Table 3:** Force-dependent Michaelis Menten parameters for the different models of unwinding, for experiments measuring unwinding of a hairpin under tension.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** |  | **Eq.** |  | **Eq.** |
| PS at Binding |  | (S13) |  | (S14) |
| PS at hydrolysis |  | (S15) |  | (S16) |
| PS at release |  | (S17) |  | (S18) |
| BR before binding |  | (S19) |  | (S20) |
| BR before hydrolysis |  | (S21) |  | (S22) |
| BR before release |  | (S23) |  | (S24) |