Supplementary Material (ESI) for Organic & Biomolecular Chemistry

Electronic Supplementary Information – Model Used to Calculate Thermodynamic Binding Parameters

NAME OF PROGRAM: DNA_Polymer3
NUMBER OF PARAMETERS: 5
PARAMETERS NAME: n,k,dH1,ns,dH2
INDEPENDENT VAR.: Polymer,DNA,V
DEPENDENT VAR.: Q

DEFINITION:

```
DNA2=DNA;
Polymer2=Polymer;
nm=1/n;
for(a=1;a<=20;a++)
{
dn = 0.1*nm;
nu=0;
for (i = 1; i<= 30;i++)
{
nu=nu+dn;
Polymer1 = nu * DNA2 + (nu * (1 - (n - 1) * nu) ^ (n - 1)) / (k * (1 - n * nu) ^ n);
If( Polymer1 >= Polymer2){nu=nu-dn;dn=0.1*dn;}
}
if(nu<nuc){break;}
Pbc=((nu-nuc)*DNA2)/(1-nuc*ns);
DNA2=DNA2-Pbc*ns;Polymer2=Polymer2-Pbc;
}
Pb=nu*DNA2;
Q=V*(Pb*dH1+(DNA-DNA2)*dH2);
```