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Supplementary Materials

Energy Dissipation Hypothesis Applied to Enhance the Affinity of Thrombin Binding Aptamer

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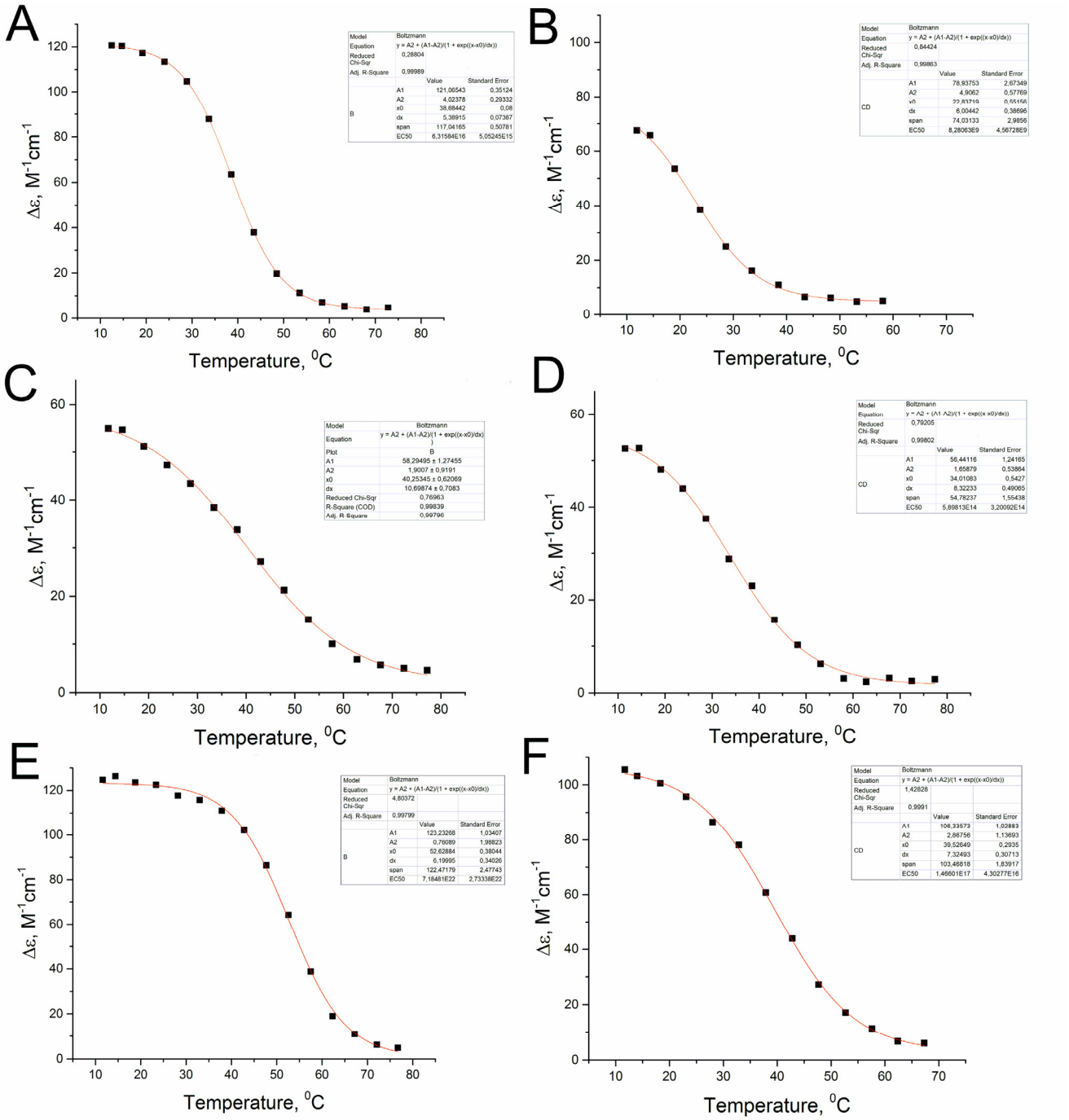

Figure S1. Melting curves of G-quadruplexes acquired from circular dichroism spectra at wavelength of 295 nm. A – K+-coordinated HD1; B – Na+-coordinated HD1; C – K+-coordinated carboxy-T4,T13-HD1; D - Na+-coordinated carboxy-T4,T13-HD1; E – K+-coordinated biotinylated-T4,T13-HD1; F – Na+-coordinated biotinylated-T4,T13-HD1.

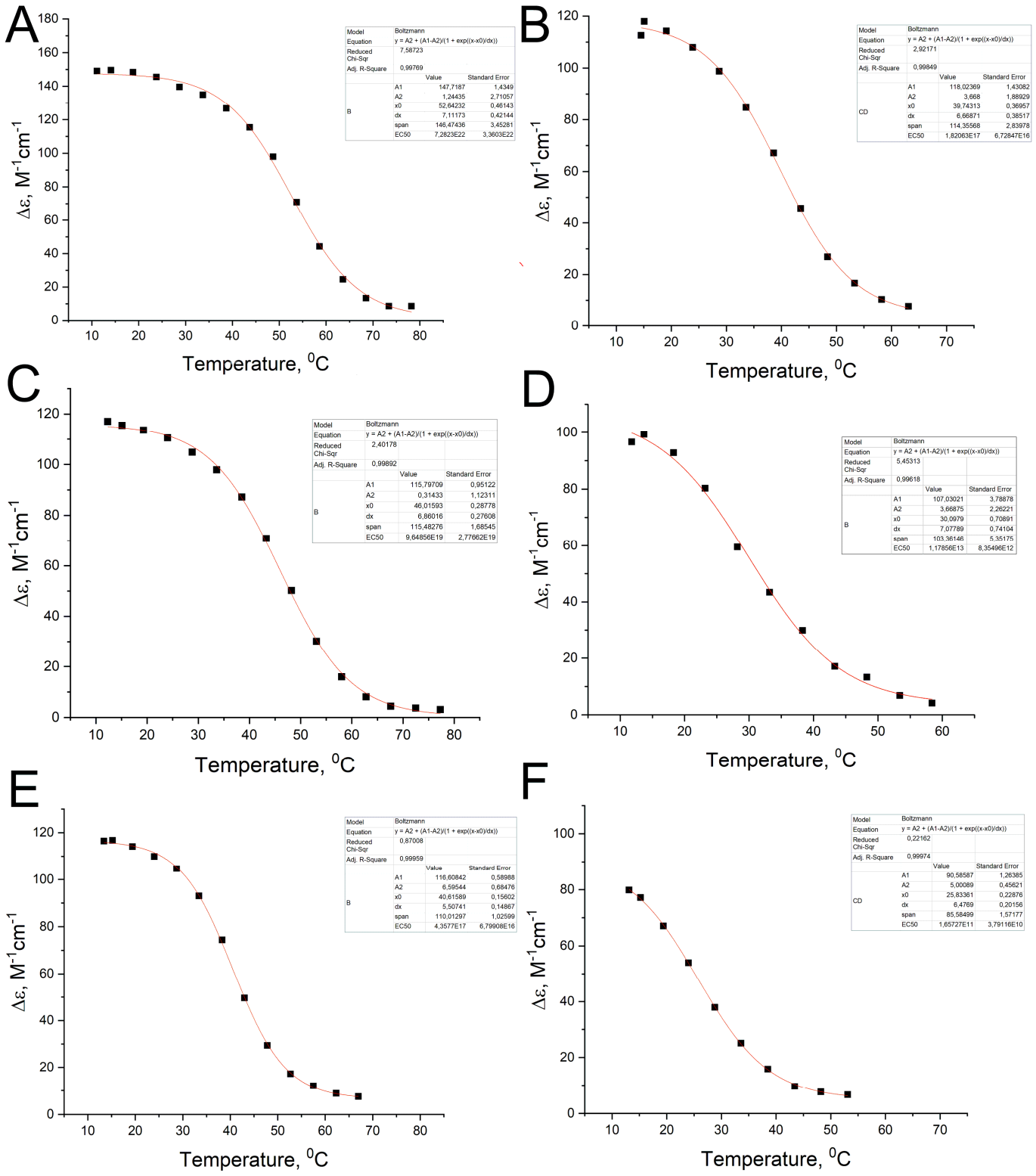

Figure S2. Melting curves of G-quadruplexes acquired from circular dichroism spectra at wavelength of 295 nm. A – K+-coordinated amino-T4,T13-HD1; B – Na+-coordinated amino-T4,T13-HD1; C – K+-coordinated amino-T13-HD1; D - Na+-coordinated amino-T13-HD1; E – K+-coordinated amino-T3,T12-HD1; F – Na+-coordinated amino-T3,T12-HD1.

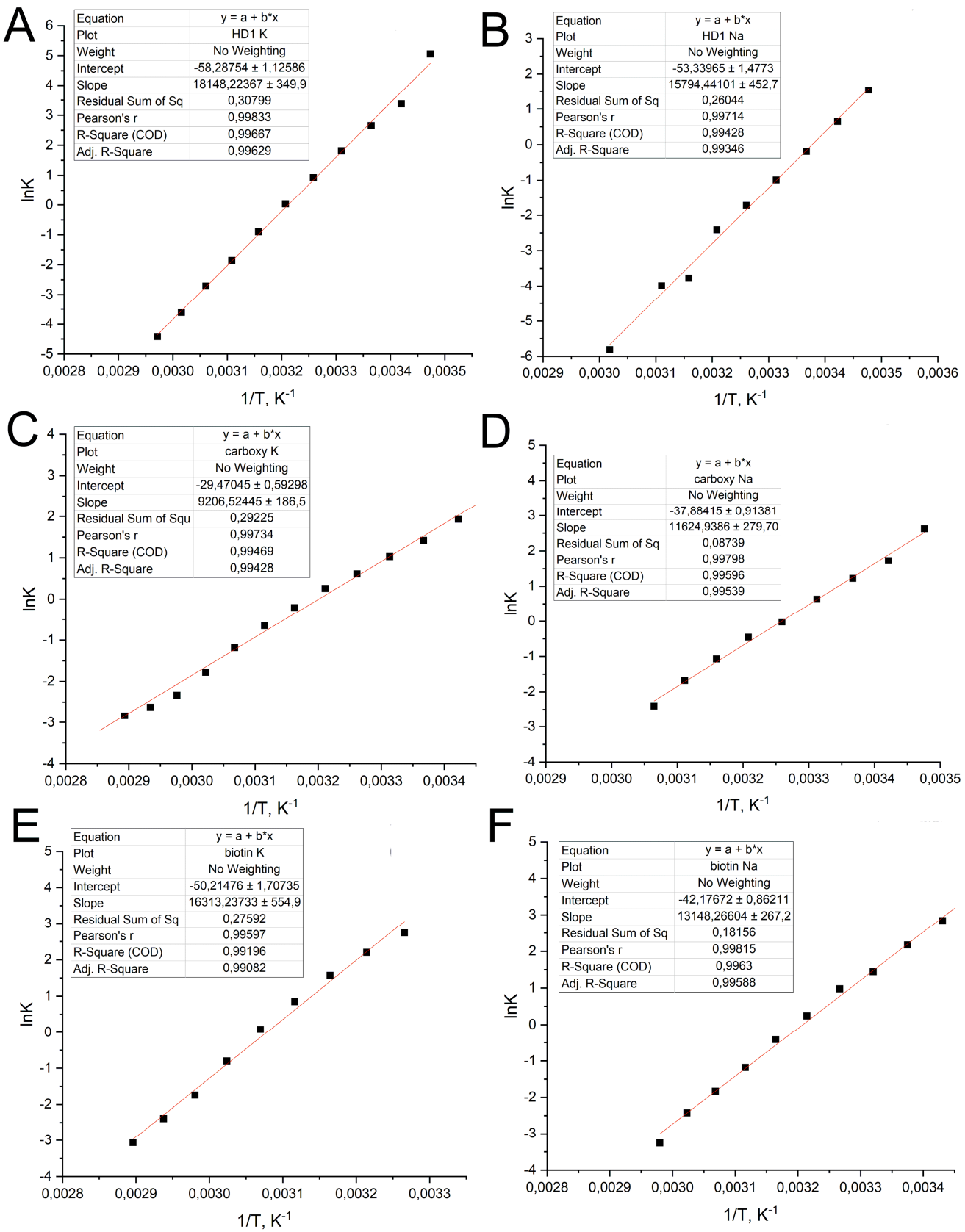

Figure S3. Linearization of melting curves in the coordinates lnK(1/T) used for the calculations of thermodynamic parameters. A – K+-coordinated HD1; B – Na+-coordinated HD1; C – K+-coordinated carboxy-T4,T13-HD1; D - Na+-coordinated carboxy-T4,T13-HD1; E – K+-coordinated biotinylated-T4,T13-HD1; F – Na+-coordinated biotinylated-T4,T13-HD1.

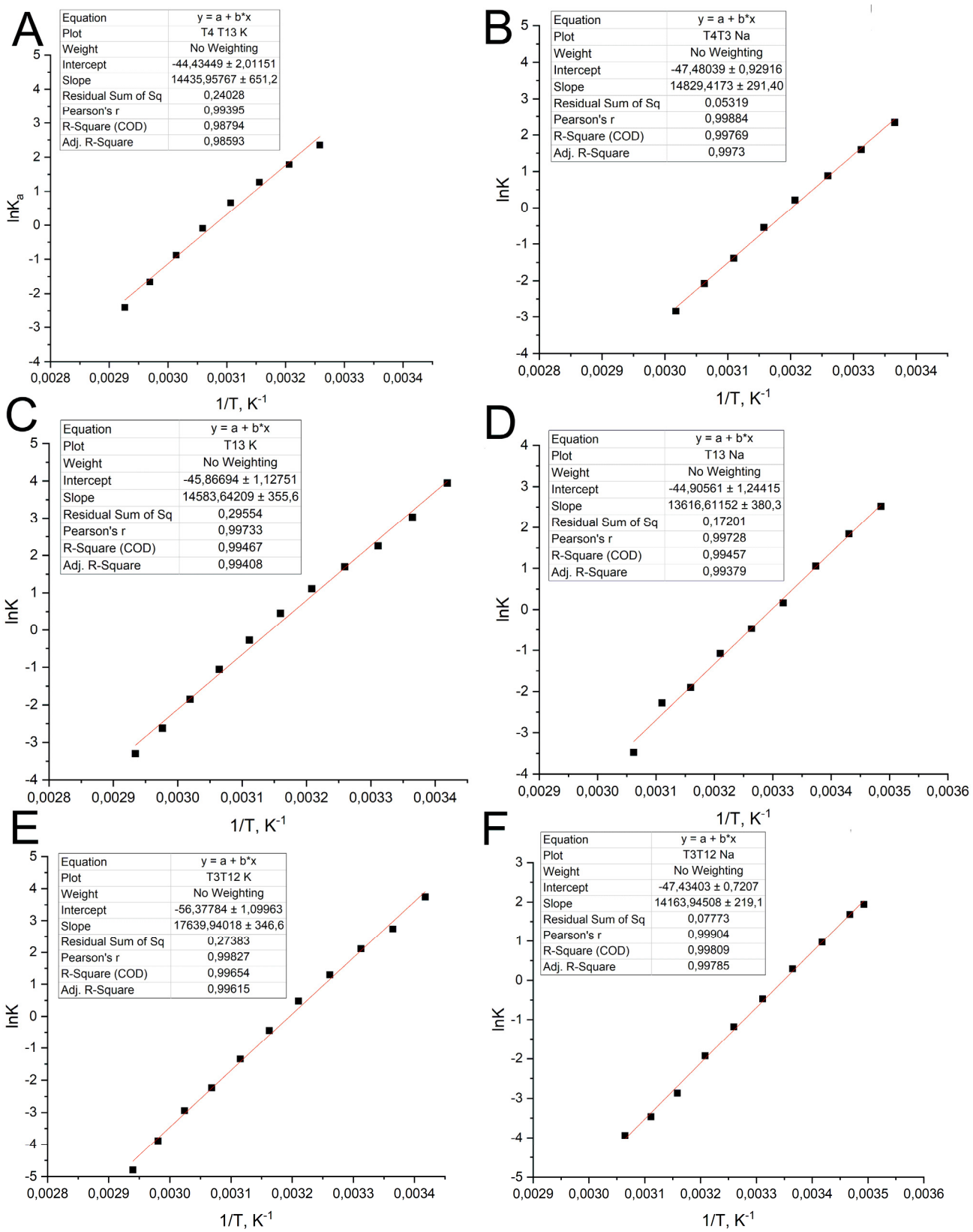

Figure S4. Linearization of melting curves in the coordinates lnK(1/T) used for the calculations of thermodynamic parameters. A – K+-coordinated amino-T4,T13-HD1; B – Na+-coordinated amino-T4,T13-HD1; C – K+-coordinated amino-T13-HD1; D - Na+-coordinated amino-T13-HD1; E – K+-coordinated amino-T3,T12-HD1; F – Na+-coordinated amino-T3,T12-HD1.