

Supporting Information

for

Improving ITC studies of cyclodextrin inclusion compounds by global analysis of conventional and non-conventional experiments

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Complementary data of uncertainty on K and ΔH for various protocols

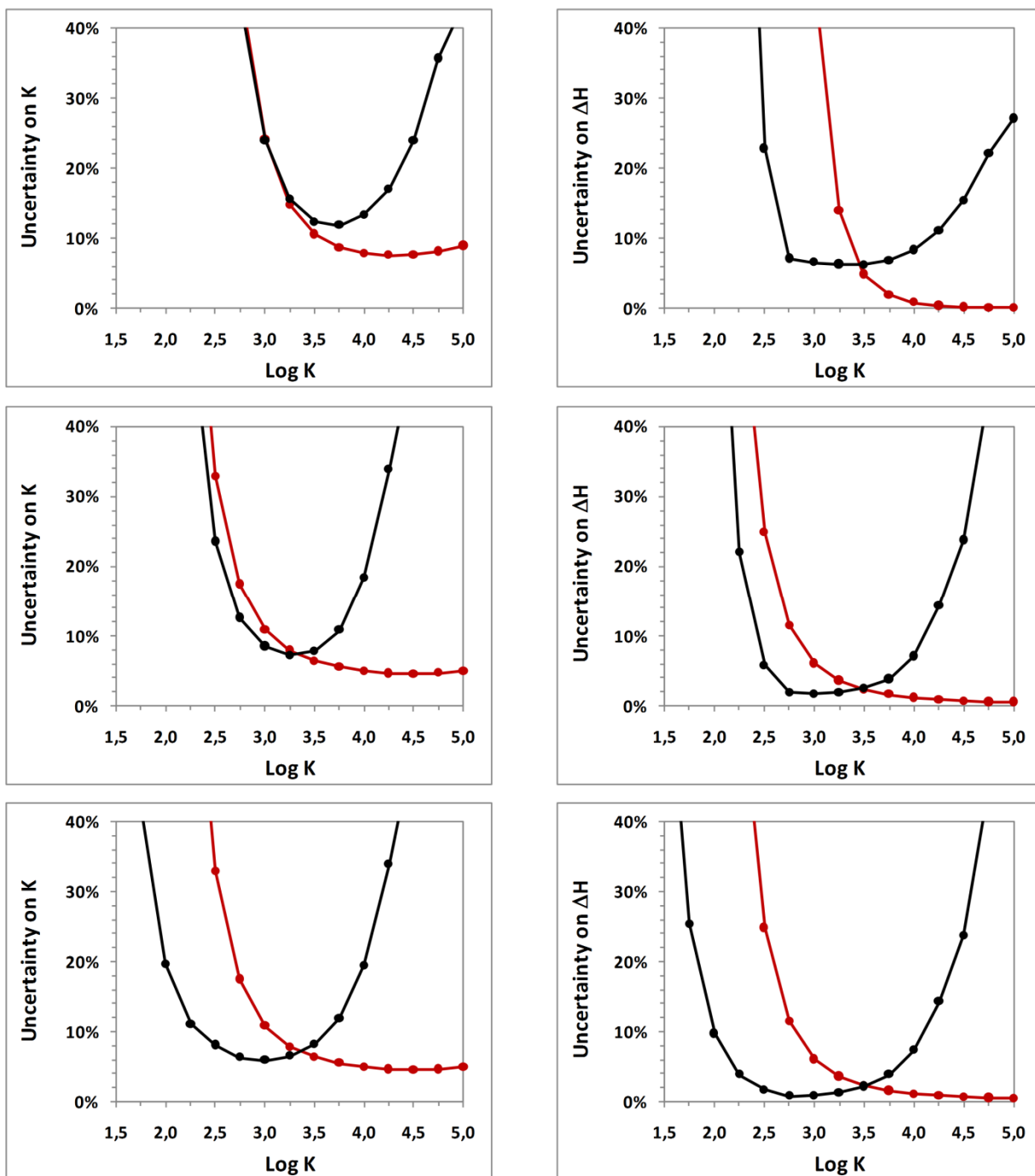


Figure S1: Theoretical uncertainty on K and ΔH as a function of $\log K$ for titration (red curve) and release (black curve) protocols, for aqueous guest solubility equal to 0.1 (top), 0.5 (middle) and 5 mM (bottom) and for an inclusion enthalpy equal to $-3000 \text{ cal}\cdot\text{mol}^{-1}$ (Total concentrations considered as perfectly known).

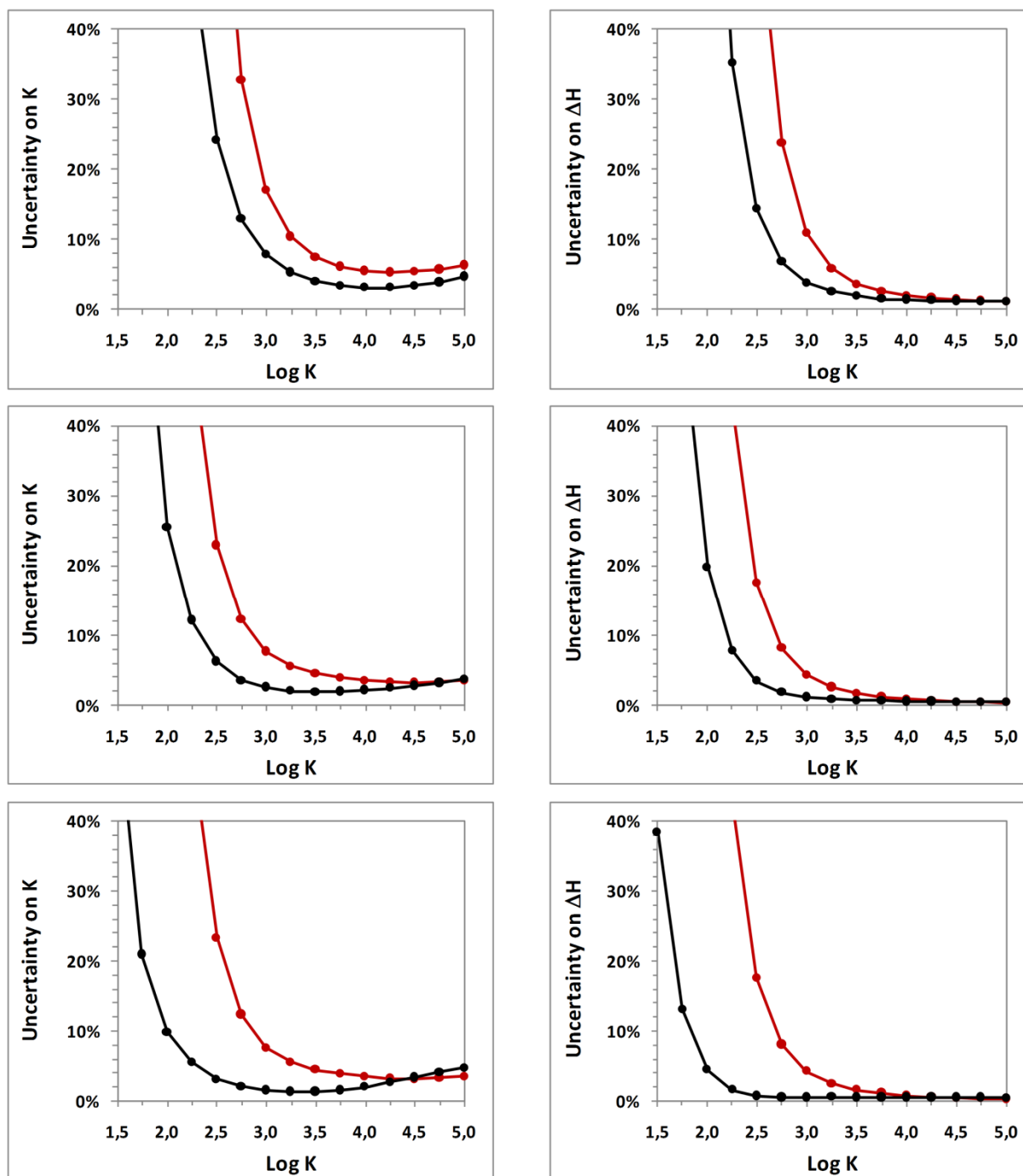


Figure S2: Theoretical uncertainty on K and ΔH as a function of $\log K$ for titration-titration (red curve) and titration-release (black curve) approaches, for an aqueous guest solubility equal to 0.1 (top), 0.5 (middle) and 5 mM (bottom) and for an inclusion enthalpy equal to $-3000 \text{ cal}\cdot\text{mol}^{-1}$ (Total concentrations considered as perfectly known).

Table S1: Theoretical uncertainties on K for titration-titration, titration-release and reverse titration-annihilated release approaches (aqueous guest solubility equal to 2 mM, inclusion enthalpy equal to $-3000 \text{ cal}\cdot\text{mol}^{-1}$). Total concentrations considered as perfectly known.

| Log K | K (M^{-1}) | Titration-titration | | Titration-release | | reverse titration-annihilated release | |
|-------|-----------------------|---------------------|---------------------|-------------------|---------------------|---------------------------------------|---------------------|
| | | $t^*\delta K$ | $t^*\delta\Delta H$ | $t^*\delta K$ | $t^*\delta\Delta H$ | $t^*\delta K$ | $t^*\delta\Delta H$ |
| 1,50 | 32 | >100% | >100% | 93% | 75% | 37% | 34% |
| 1,75 | 56 | >100% | >100% | 38% | 26% | 17% | 13% |
| 2,00 | 100 | >100% | >100% | 16% | 9% | 8% | 6% |
| 2,25 | 178 | 51% | 43% | 8% | 3% | 4% | 3% |
| 2,50 | 316 | 23% | 18% | 4% | 1% | 3% | 2% |
| 2,75 | 562 | 12% | 8% | 2% | 1% | 3% | 1% |
| 3,00 | 1000 | 8% | 4% | 2% | 1% | 3% | 1% |
| 3,25 | 1778 | 6% | 3% | 2% | 1% | 4% | 1% |
| 3,50 | 3162 | 4% | 2% | 2% | 1% | 4% | 1% |
| 3,75 | 5623 | 4% | 1% | 2% | 1% | 5% | 1% |
| 4,00 | 10000 | 3% | 1% | 2% | 1% | 6% | 1% |
| 4,25 | 17783 | 3% | 1% | 2% | 1% | 7% | 1% |
| 4,50 | 31623 | 3% | 1% | 3% | 1% | 8% | 1% |
| 4,75 | 56234 | 3% | 1% | 3% | 1% | 10% | 1% |
| 5,00 | 100000 | 3% | 1% | 4% | 1% | 12% | 1% |