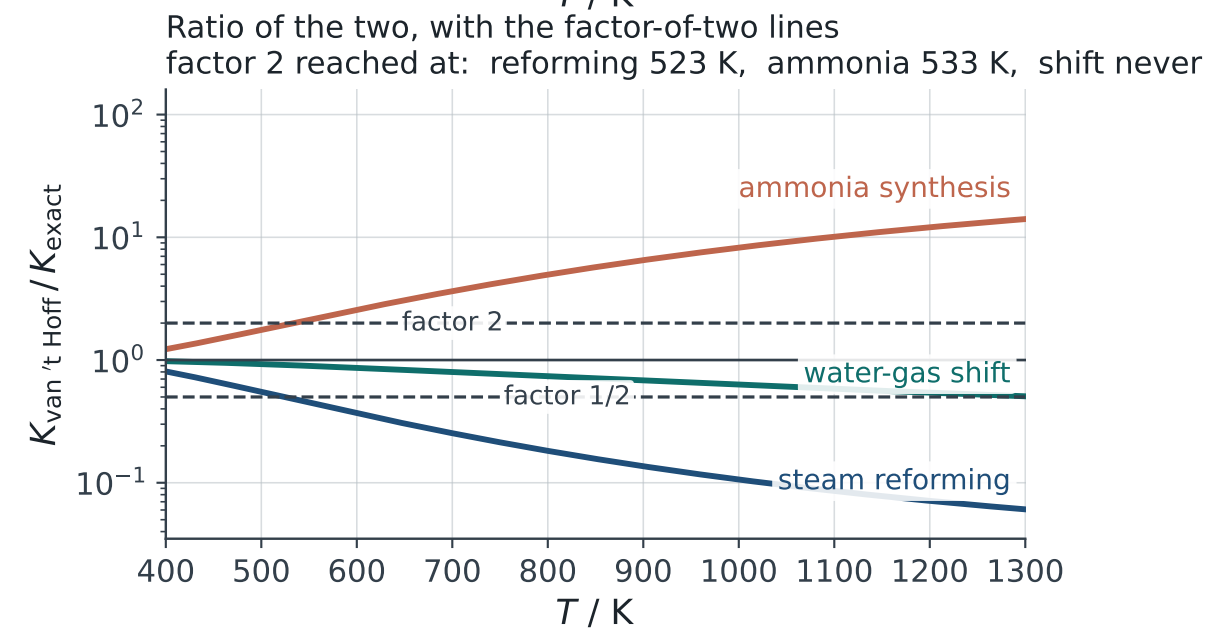
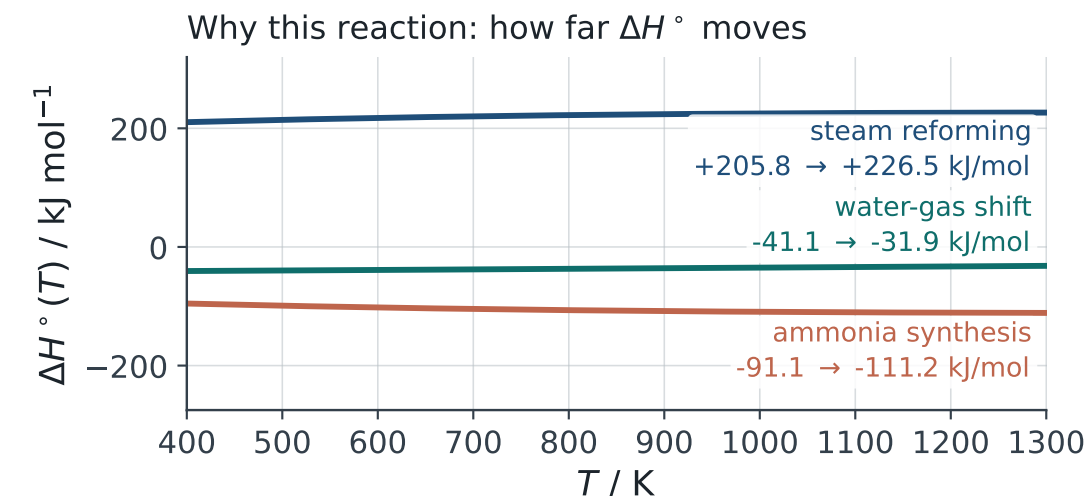
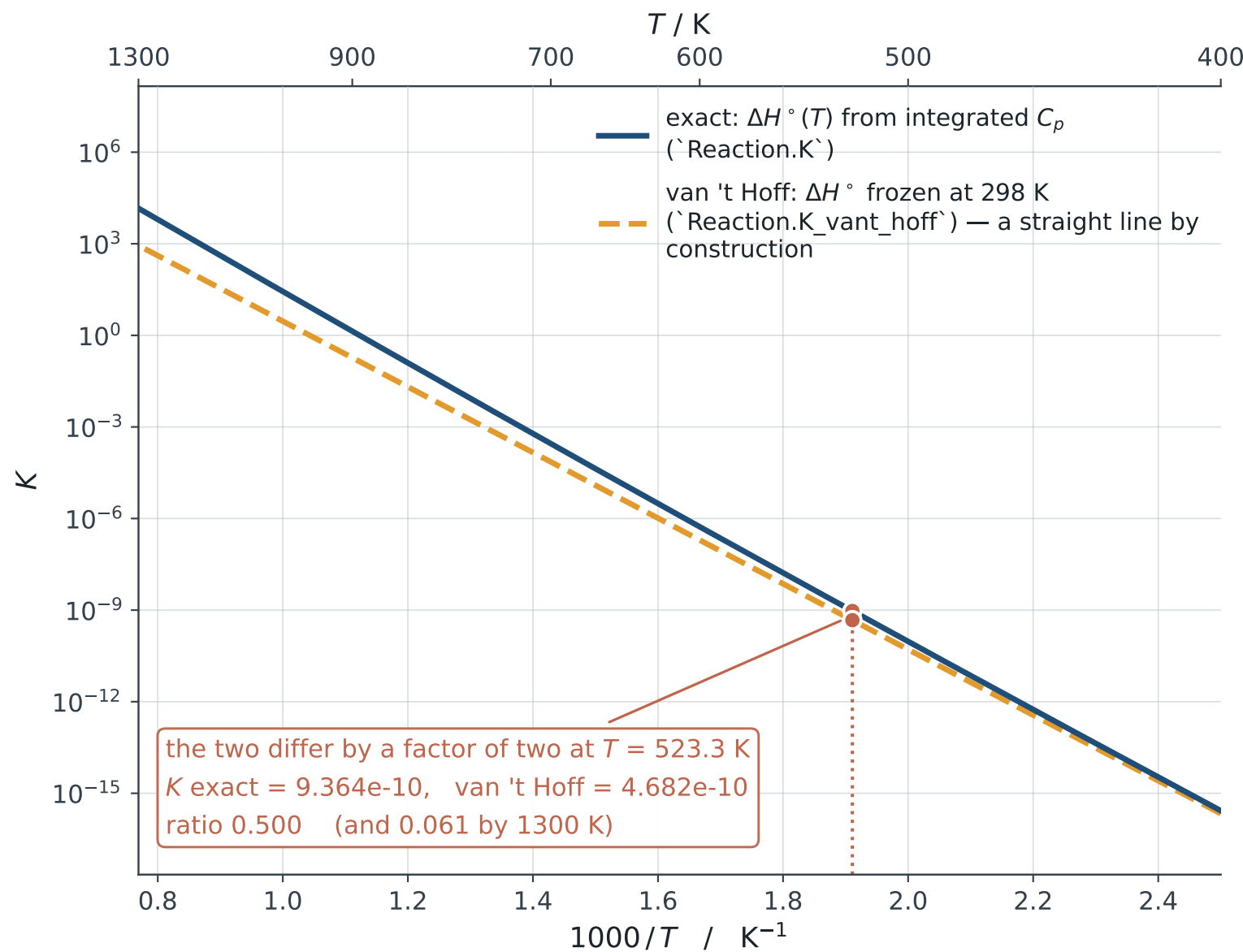


The straight line of the van 't Hoff plot is an assumption about ΔH° , and it is worth a factor of two in K well inside the range this course uses

Steam methane reforming: $\text{CH}_4 + \text{H}_2\text{O} \rightarrow \text{CO} + 3 \text{H}_2$



Every ΔH_f° , S° and C_p correlation is read from the ``chemicals`` package by ``reaction.from_chemicals``; no thermochemical number on this figure was typed in. The exact curve integrates C_p over temperature, the van 't Hoff curve does not — that single difference is a factor of two in K by 523 K for steam reforming, and a factor of 0.0607 by 1300 K.