2000-N-2

- 58 kJ mol^{-1} 165 J K^{-1} mol^{-1} 8.8 kJ mol^{-1} 352 K

2000-N-3

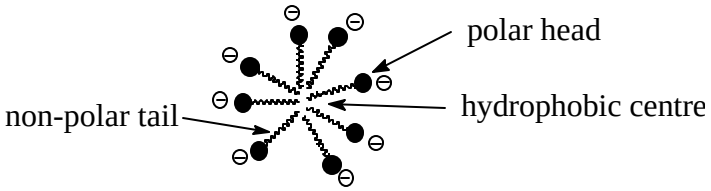
- 1.3×10^{-4} M
  4.8×10^{13} M 1.2×10^{15} atm
- 2.58

2000-N-4

- Excess H^+ is removed by: $HPO_4^{2-} + H^+ \rightarrow H_2PO_4^-$
  Excess OH^- is removed by: $H_2PO_4^- + OH^- \rightarrow HPO_4^{2-} + H_2O$
  7.20
  0.33

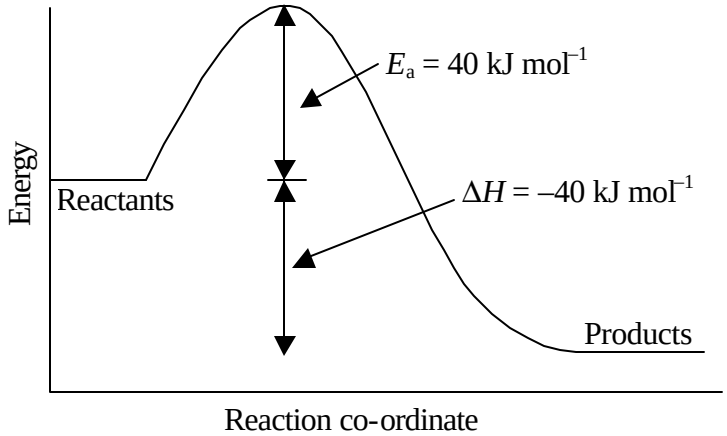
2000-N-5

- 2×10^{-20} M
- 0.30 g
- Long chain fatty acids consist of a polar head and a non-polar tail. When dispersed in water they arrange themselves spherically so that the polar (hydrophilic) heads are interacting with the polar water molecules and the non-polar (hydrophobic) tails are interacting with each other. This arrangement is called a micelle.



2000-N-6

- Rate = $k[O_2][NO]^2$
  1.73×10^3 L^2 mol^{-2} s^{-1}
- Rate = $k[NO_2][F_2]$
-



2000-N-7

- Co I Li Cu
- These compoundss act as chelating agents and form stable metal complexes with Fe^{3+} ions. These complexes are water soluble and can be excreted from the body.

  Fe(III)-EDTA complexes are $\approx 10^7$ times more stable than EDTA complexes of Cu^{2+} and Zn^{2+}. The corresponding differences in stability of the 3-hydroxypyridin-4-one complexes

are more than 10^{20}. 3-Hydroxypyridin-4-one is therefore much better at complexing Fe^{3+} in preference to Cu^{2+} and Zn^{2+} and would be reagent of choice.