```
(*
holo = %holo im Gleichgewicht
    b= Kpre= [apoA]/[ApoB]
      c= logKd
        l= Anfangskonzentration von Adenine
          r= Anfangskonzentration von RNA
*)
R = 8.3144621 (*J/mol*K*)
DeltaHbind = 110470.2357608338`
DeltaSbind = 238.303284932985`
DeltaHpre = 52002.80824997664`
DeltaSpre = 167.28088132812806`
(*Daten sind aus Kd_und_Kpre_function_of_T.nb the
 values for Kd and Kpre were taken from the Nature xls list.*)
holo[T_, r_, l_] :=
```

$$\left(100*\left(\left(\frac{1}{2\,e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}}\left(10^{Log\left[10,e^{-\frac{(DeltaHbind-T*DeltaSbind)}{R*T}}\right]}+10^{Log\left[10,e^{-\frac{(DeltaHbind-T*DeltaSbind)}{R*T}}\right]}\right)e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}+\right.\right.\right.$$

$$e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}l+e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}r-$$

$$\sqrt{\left(-4\left(e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}\right)^2 l\,r+\left(-10^{Log\left[10,e^{-\frac{(DeltaHbind-T*DeltaSbind)}{R*T}}\right]}-10^{Log\left[10,e^{-\frac{(DeltaHbind-T*DeltaSbind)}{R*T}}\right]}\right.\right.}$$

$$\left.\left.\left.\left.\left.e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}-e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}l-e^{-\frac{(DeltaHpre-T*DeltaSpre)}{R*T}}r\right)^2\right)\right)\right)\Big/r\right)\right)$$
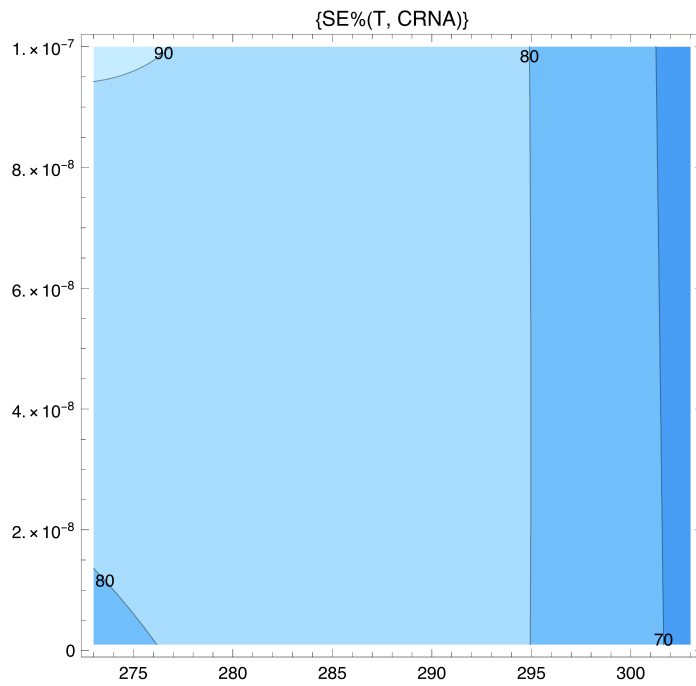
8.31446

110470.

238.303

52002.8

167.281

```
p1 = ContourPlot[holo[T, r, 1.5 * 10^-6] - holo[T, r, 0.01 * 10^-6], {T, 273, 303},
   {r, 1 * 10^-9, 100 * 10^-9}, Contours → {10, 20, 30, 40, 50, 60, 70, 80, 90, 100},
   ColorFunction → ColorData["DeepSeaColors"], ContourLabels → True,
   PlotLabel → {"SE%(T, CRNA)"}, PlotRange → {0, 100}]
```
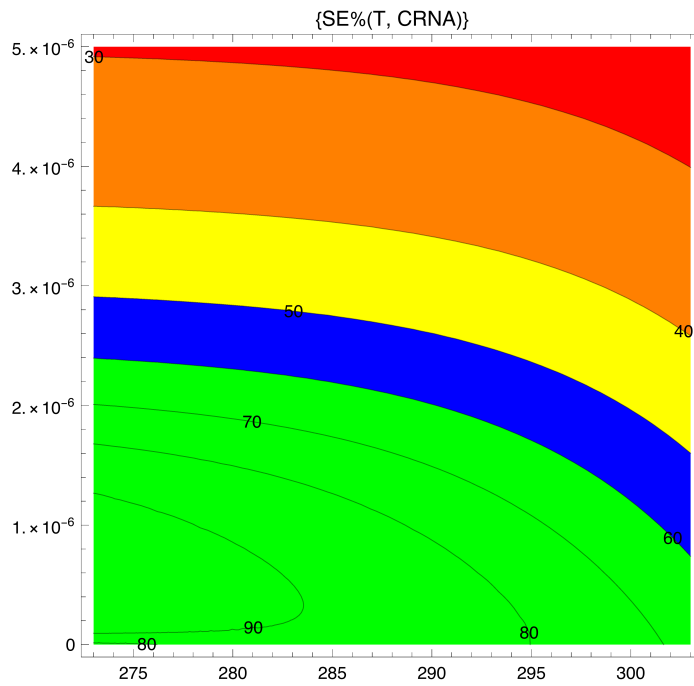

{SE%(T, CRNA)}

p1 = ContourPlot$\left[\text{holo}\left[T, r, 1.5 * 10^{-6}\right] - \text{holo}\left[T, r, 0.01 * 10^{-6}\right], \{T, 273, 303\},\right.$
  $\left\{r, 1 * 10^{-9}, 5 * 10^{-6}\right\}$, Contours → {10, 20, 30, 40, 50, 60, 70, 80, 90, 100},
  ContourShading → {Red, Red, Red, Orange, Yellow, Blue, Green, Green, Green, Green},
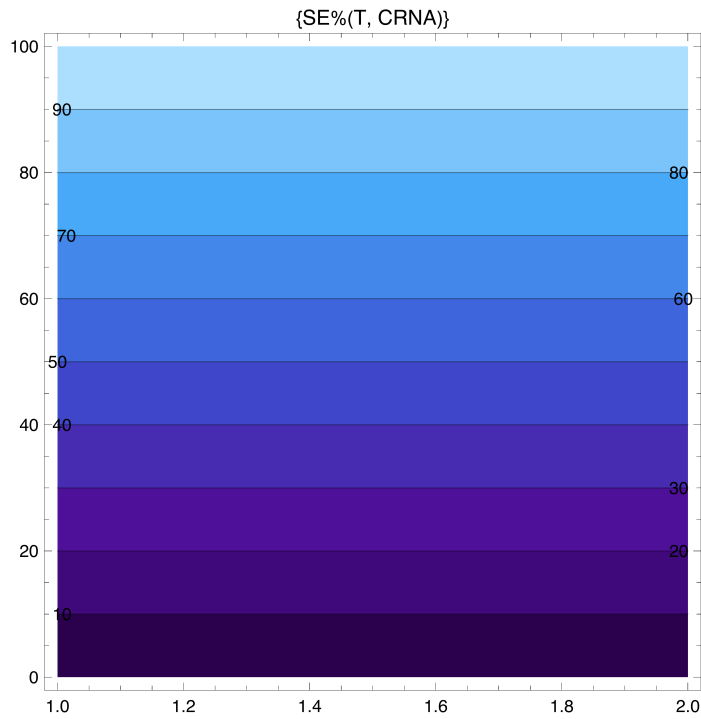 ContourLabels → True, PlotLabel → {"SE%(T, CRNA)"}, PlotRange → {0, 100}$\Big]$

```
schoen[x_, y_] := (x / x) + y - 1
p1 = ContourPlot[schoen[x, y], {x, 1, 2},
   {y, 0, 100}, Contours → {10, 20, 30, 40, 50, 60, 70, 80, 90, 100},
   ColorFunction → ColorData["DeepSeaColors"], ContourLabels → True,
   PlotLabel → {"SE%(T, CRNA)"}, PlotRange → {0, 100}]
```


$$150 * 10^6 \big/ (30 * 60 * 24 * 7 * 4 * 12) \,/\!/ \, N$$

10.334