

## 2.5.6 Evaluating kinetic parameters

### Some last cautionary notes on data fitting

- Taking  $1/r$  creates greater statistical emphasis on low (i.e. the least precise)  $r$  values → for imprecise  $r$  measurement prefer a nonlinear least square fit directly on  $r$
- Check thermodynamic values by varying  $T^\circ$ :
  - $\Delta H_{ads}$  should be negative
  - For non-dissociative adsorption  $\Delta S_{ads}$  should also be negative due to loss of degrees of freedom
  - Results that do not meet these criteria should be questioned