

**Struktura:**

**primární**

NCGYMWFAA

**post-translační  
modifikace**

NCGpYMWFAA

**sekundární**



**terciální**



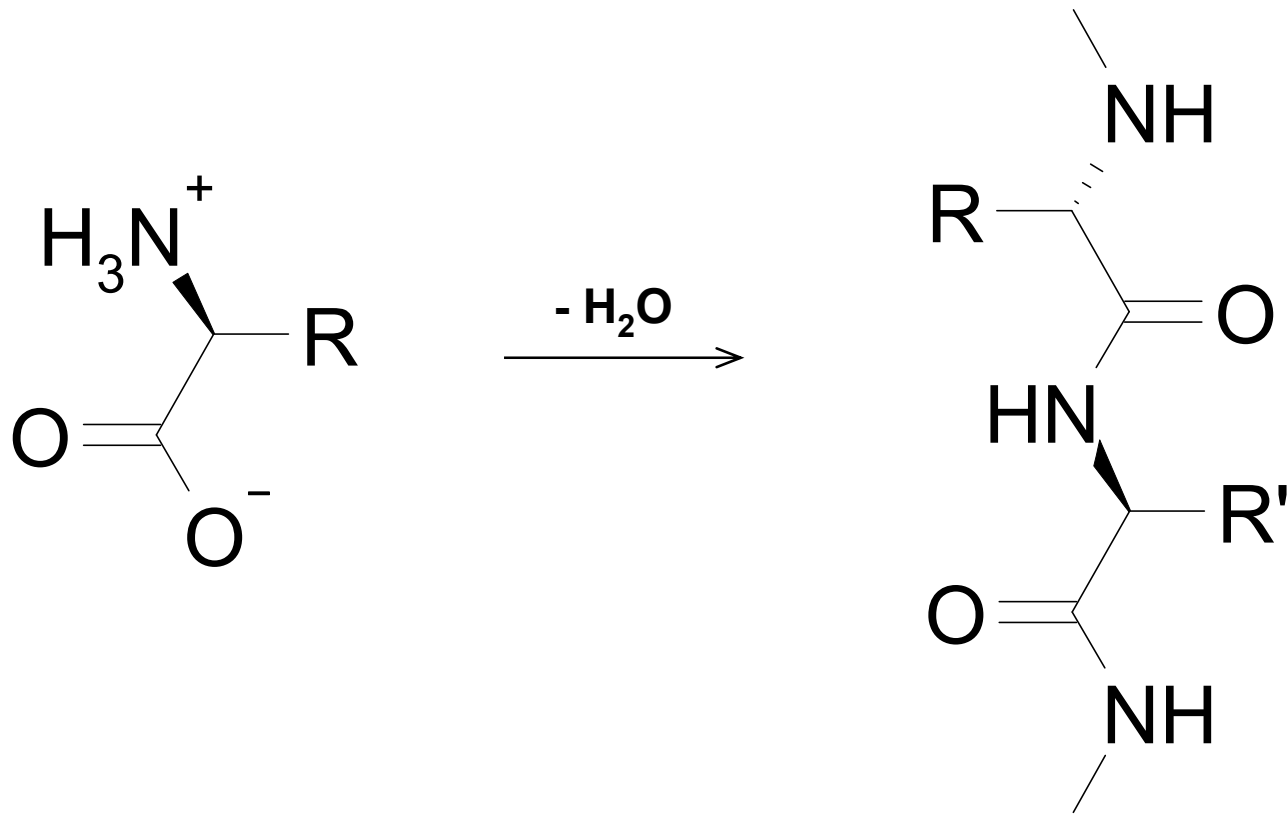
**kvarterní**



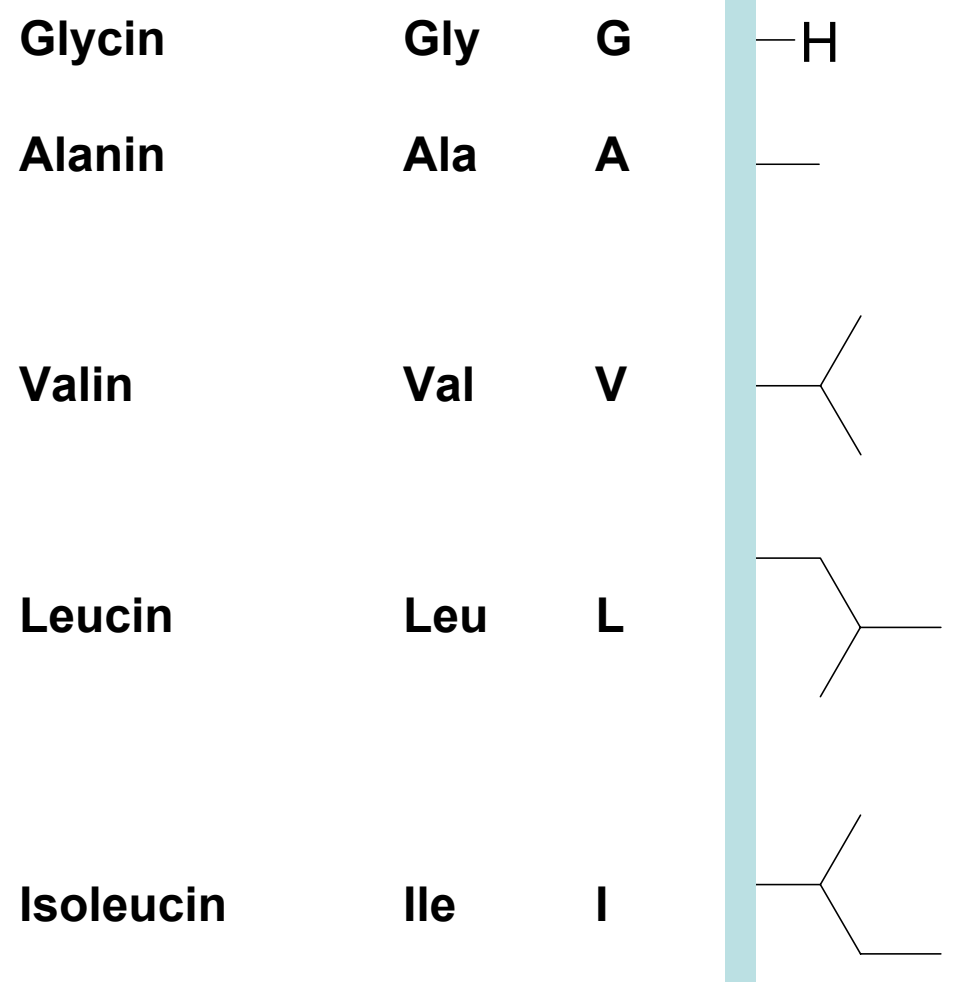
**kovalentní**

**prostorová**

## Aminokyseliny:



## Postraní řetězce (alifatické):

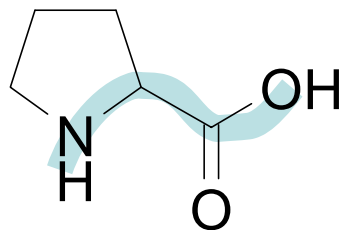


## Postraní řetězce (alifatické):

Prolin

Pro

P



## Postraní řetězce (s hydroxylovou skupinou):

Serin

Ser

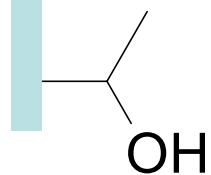
S



Threonin

Thr

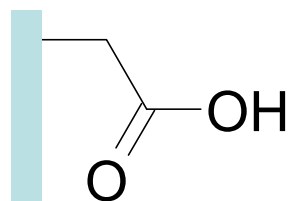
T



## Postraní řetězce (kyselé):

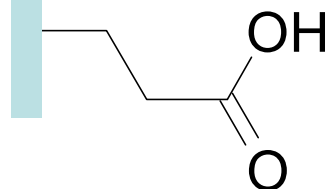
Asparágová k. Asp

D



Glutamová k. Glu

E

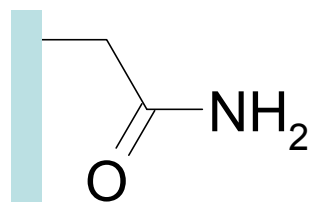


## Postraní řetězce (amidy):

**Asparagin**

**Asn**

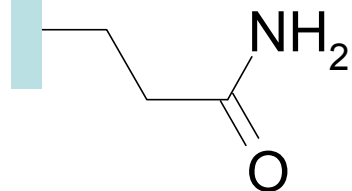
**N**



**Glutamin**

**Gln**

**Q**

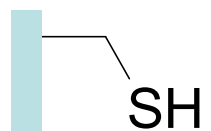


## Postraní řetězce (obsahující síru):

**Cystein**

**Cys**

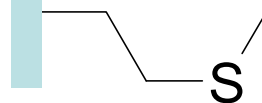
**C**



**Methionin**

**Met**

**M**



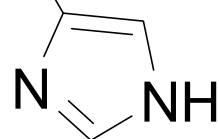


## Postraní řetězce (alkalické):

**Histidin**

**His**

**H**



**Lysin**

**Lys**

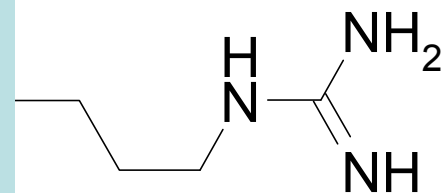
**K**



**Arginin**

**Arg**

**R**

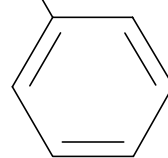


## Postraní řetězce (aromatické):

Fenylalanin

Phe

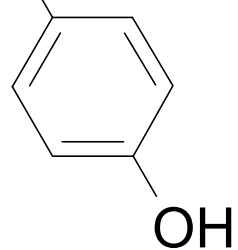
F



Tyrosin

Tyr

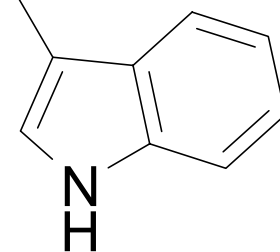
Y



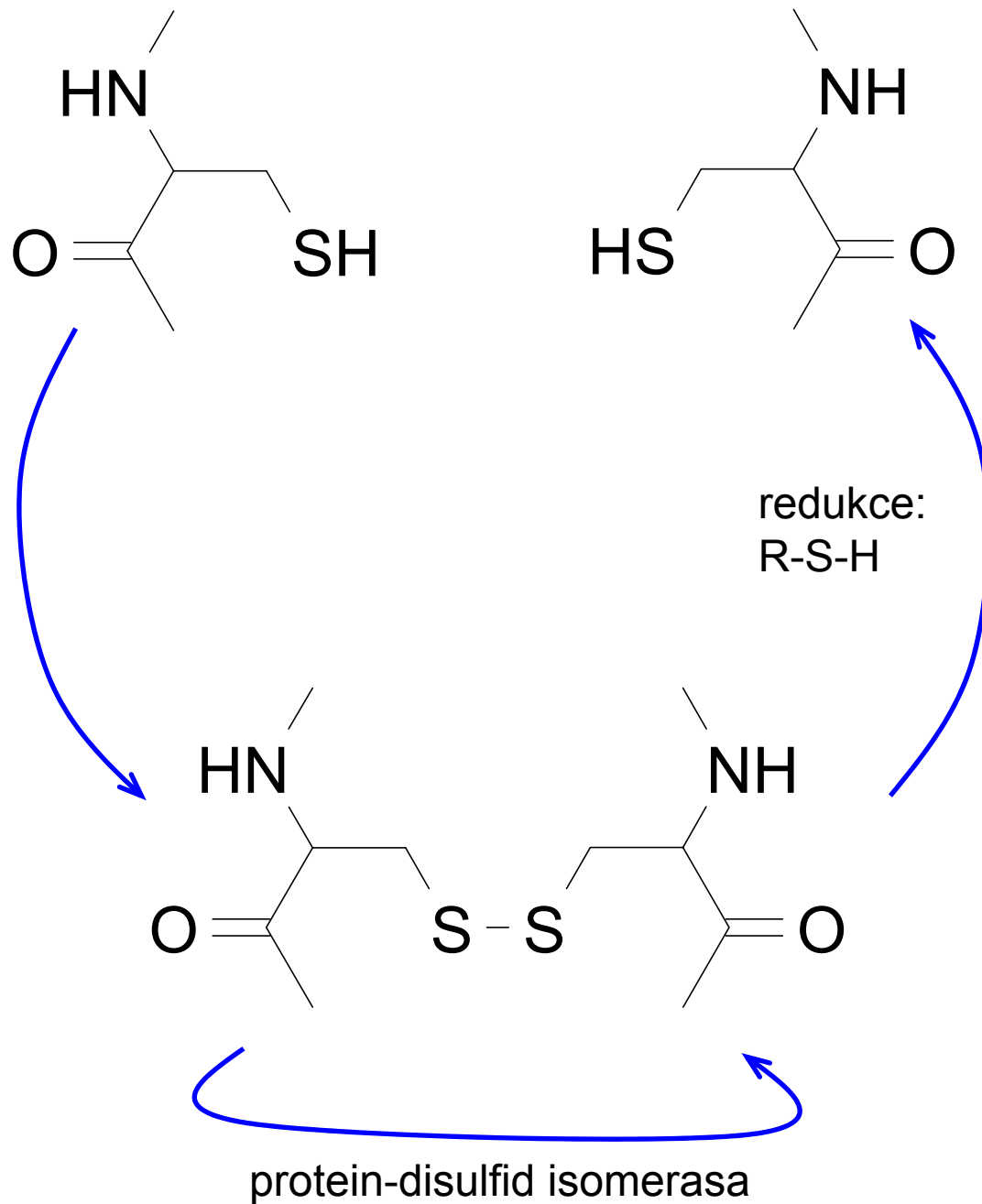
Tryptofan

Trp

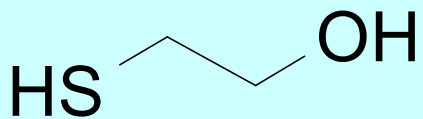
W



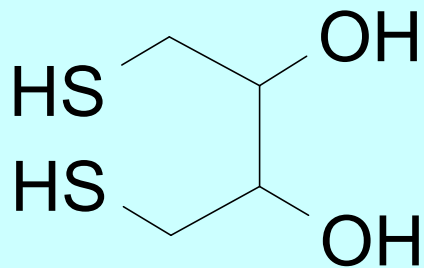
**Disulfidové můstky:**



Merkaptoethanol



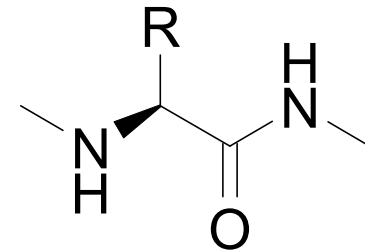
Dithiothreitol



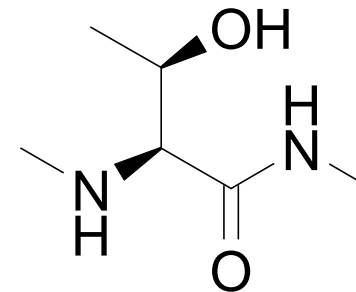
## Stereoisomery:

**Glycin – není chirální**

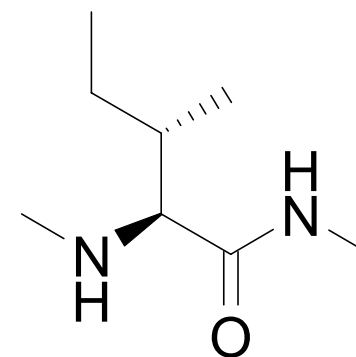
**Ostatní ( $C^\alpha$ ) – L-isomery, (2S - s výjimkou cysteinu)**



**Threonin ( $C^\beta$ ) - (2S,3R)-2-amino-3-hydroxybutanová kyselina**



**Isoleucin ( $C^\beta$ ) - (2S,3S)-2-amino-3-methylpentanová kyselina**

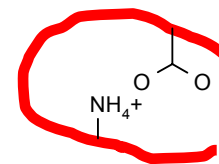
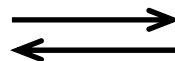
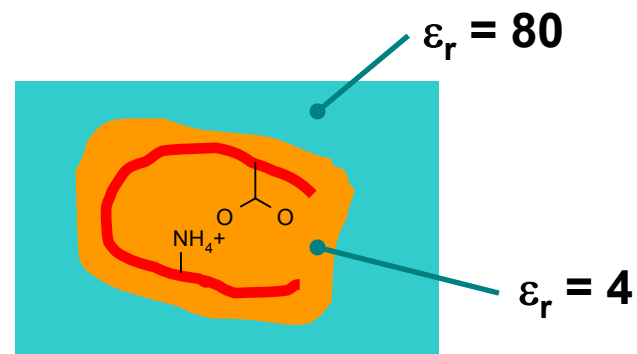
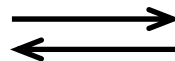
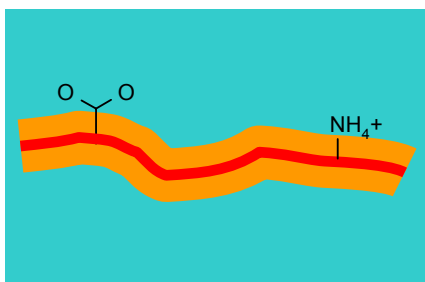


## **Nekovalentní interakce:**

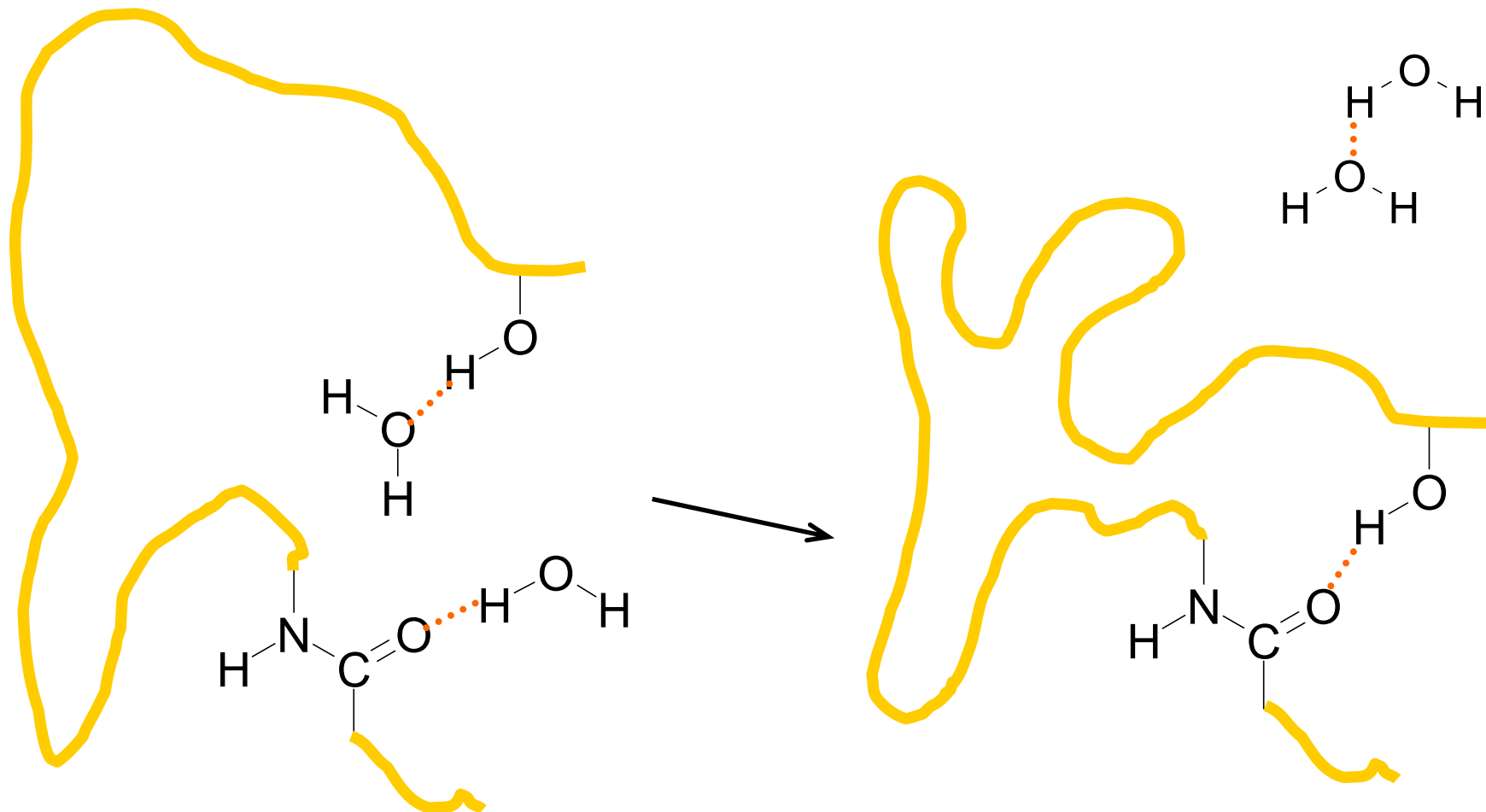
- iontové (Coulombické, elektrostatické)**
  - van der Waalsovy (slabé, dispersní)**
  - vodíkové můstky**
  - $\pi$ - $\pi$ , CH/ $\pi$ , kationt/ $\pi$ , OH/ $\pi$ , NH/ $\pi$  a další**
- 
- hydrofobní efekt**

# Nekovalentní interakce: - iontové (Coulombické, elektrostatické)

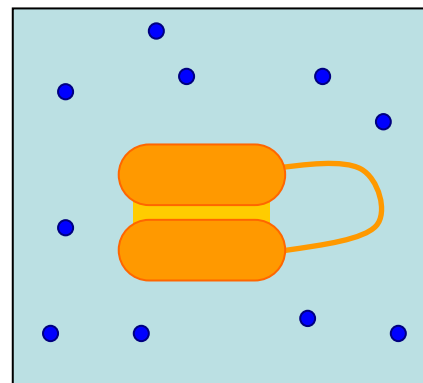
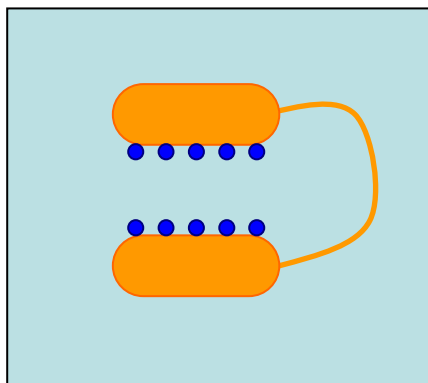
$\Delta G$



**Nekovalentní interakce:  
- vodíkové můstky**



# Nekovalentní interakce: - hydrofobní efekt



$\Delta G$	klesá
$\Delta H$	se moc nemění
$-T\Delta S$	klesá