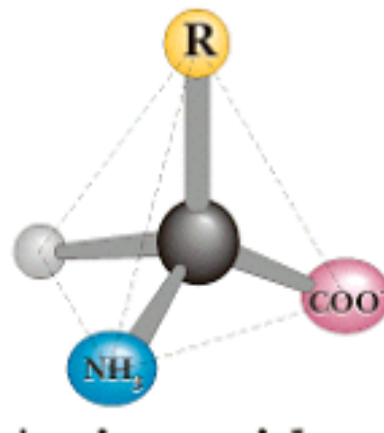
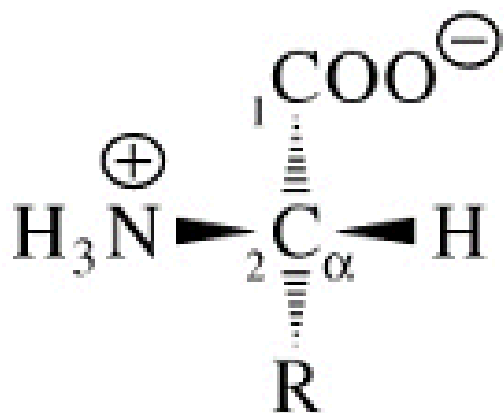


# AMINOKWASY, PEPTYDY,



**PODZIAŁ AMINOKWASÓW ZE WZGLĘDU NA BUDOWĘ ŁAŃCUCHA  
BOCZNEGO- budowa i krótka charakterystyka.**

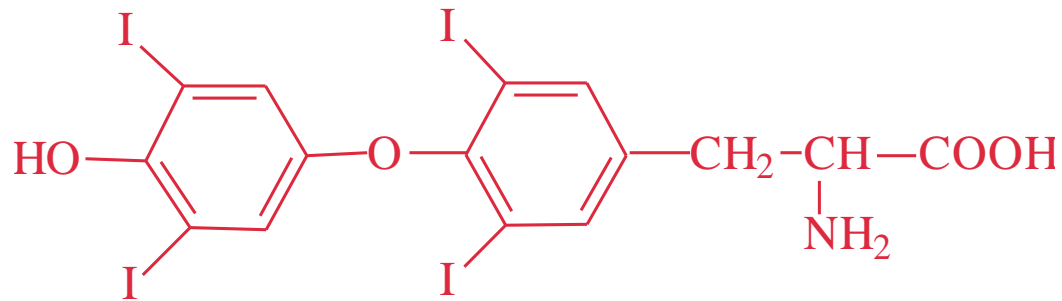
**Podział aminokwasów ze względu na  
właściwości R**

*AMINOKWASY EGZO- I ENDOGENNE*

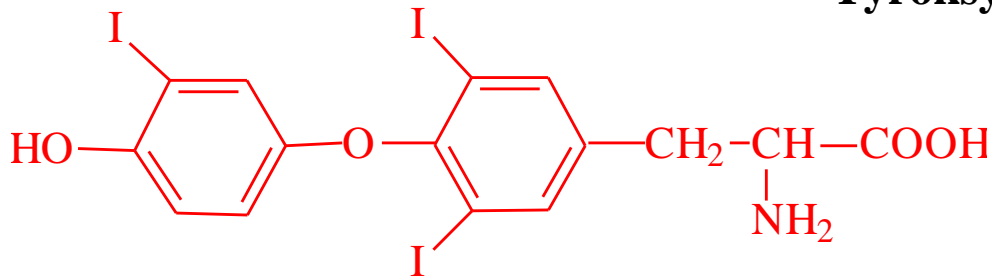
# PULA AMINOKWASOWA



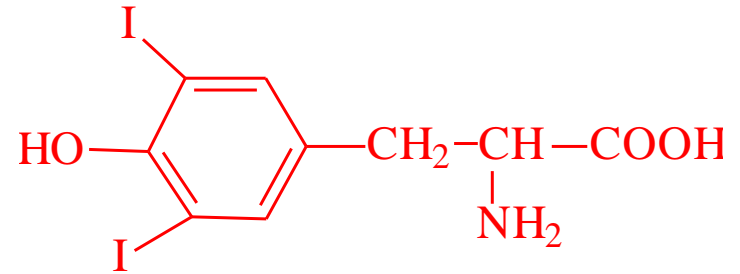
# AMINOKWASY NIEBIAŁKOWE



**Tyrosyna**



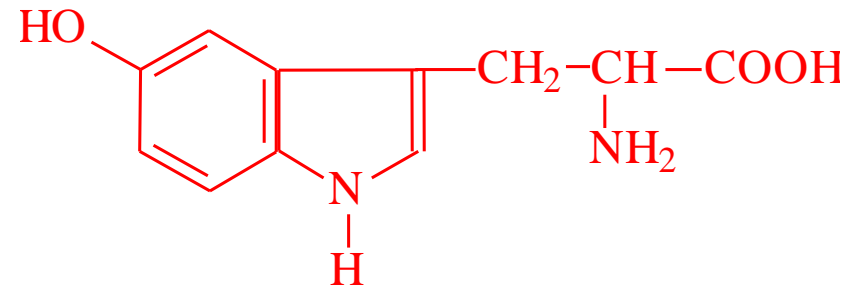
**Trójiodotyronina**



**3,5-dwujiodotyrozyna**



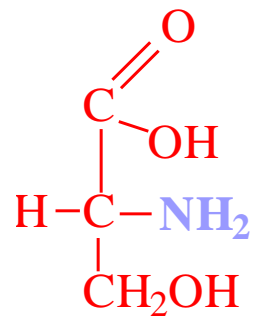
**Kwas  $\gamma$ -aminomasłowy (GABA)**



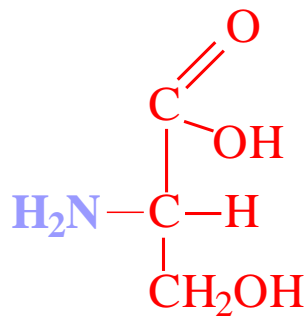
**5-Hydroksytryptofan**

# STEREOCHEMIA AMINOKWASÓW

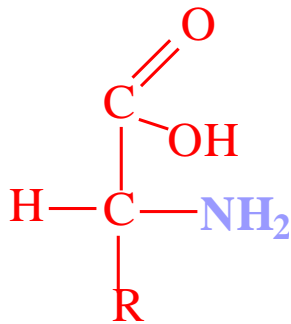
## KONFIGURACJA WZGLĘDNA D, L



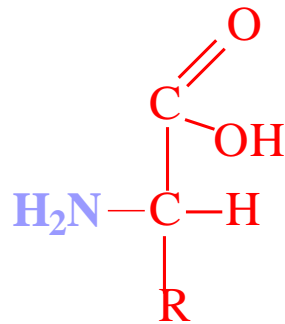
D-seryna



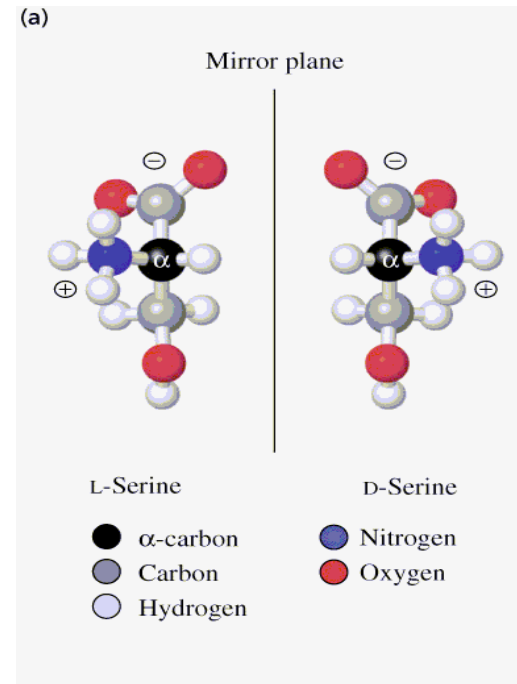
L-seryna



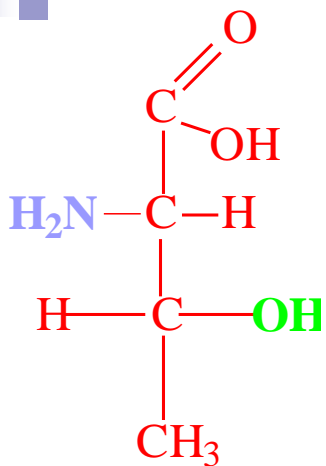
D-aminokwas



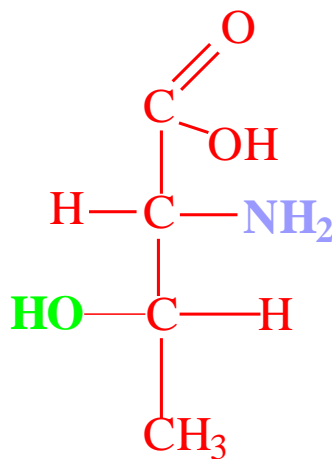
L-aminokwas



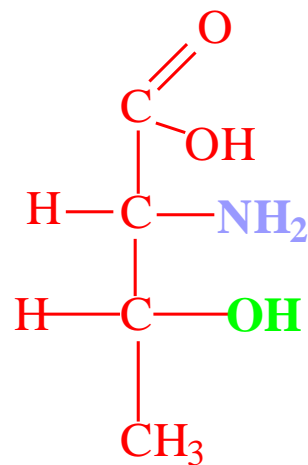
# STEREOIZOMERY TREONINY



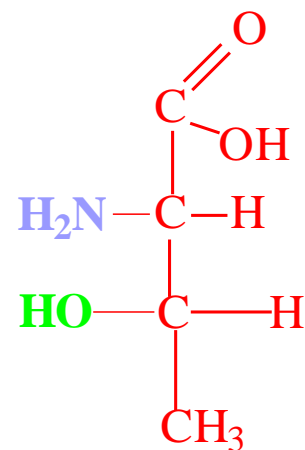
L-treonina



D-treonina

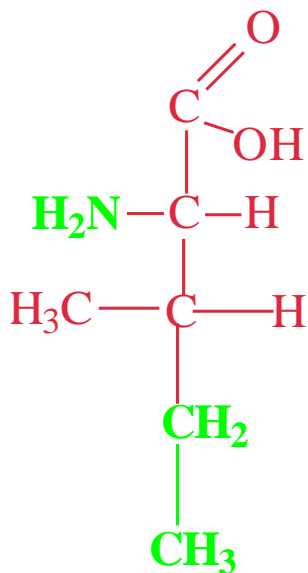


D-allo-treonina

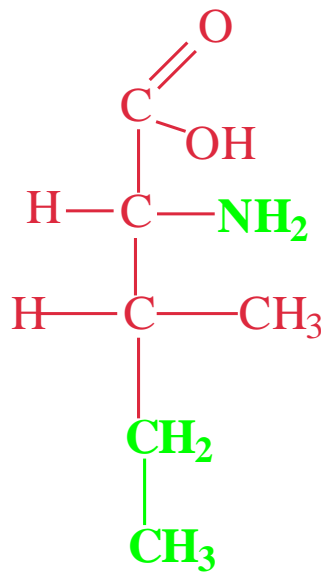


L-allo-treonina

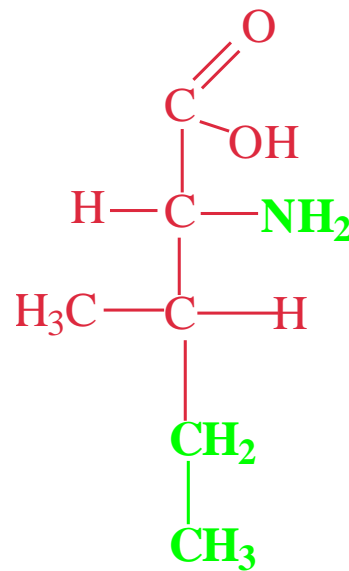
# STEREOIZOMERY IZOLEUCINY



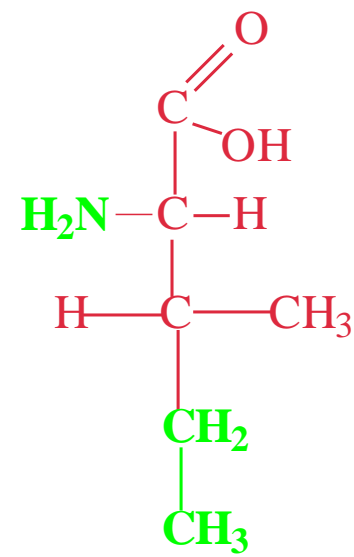
L-izoleucina



D-izoleucina



D-allo-izoleucina



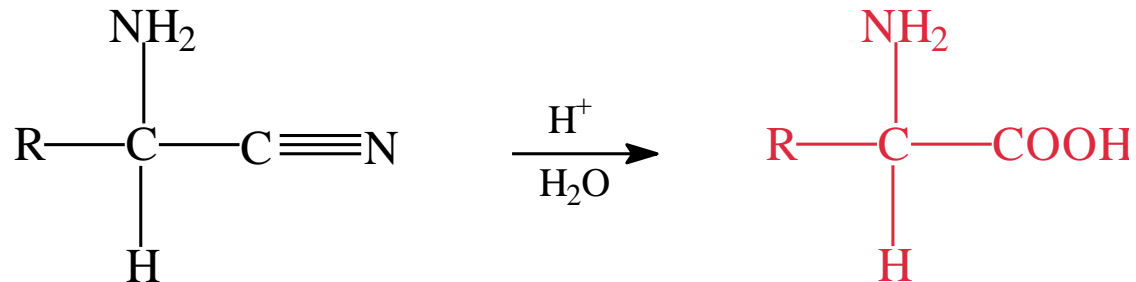
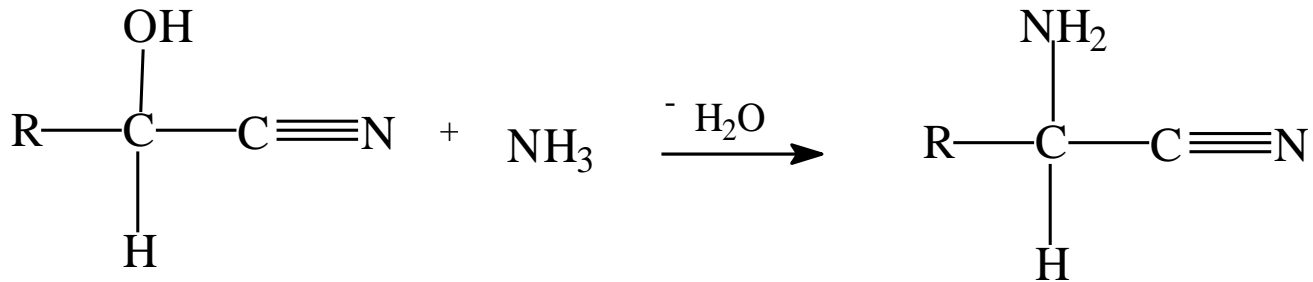
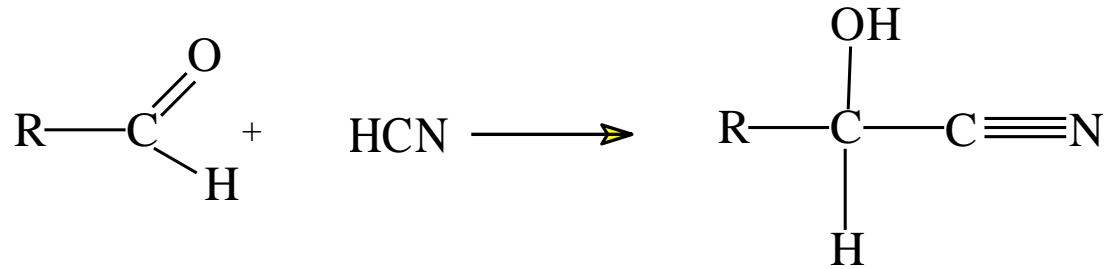
L-allo-izoleucina

# OTRZYMYWANIE AMINOKWASÓW

## 1. Hydroliza białek

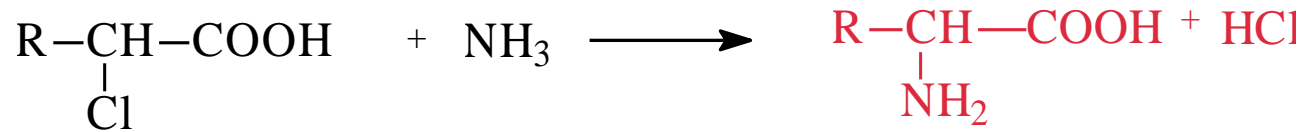
## 2. Syntezy aminokwasów

### a. Synteza Streckera:

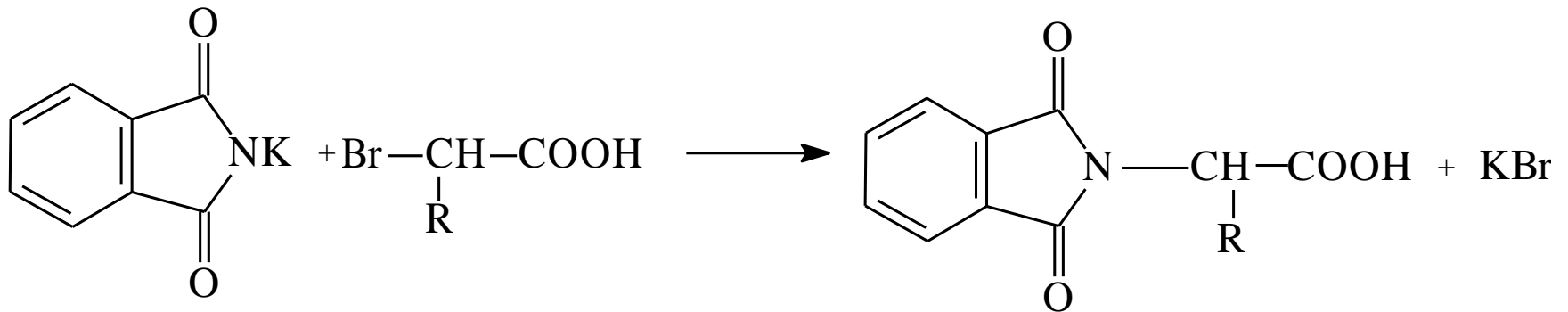


# OTRZYMYWANIE AMINOKWASÓW c.d

b.



c.



usuwanie grupy  
ftaloilowej kwasu  
N\_ftaloiloaminowego

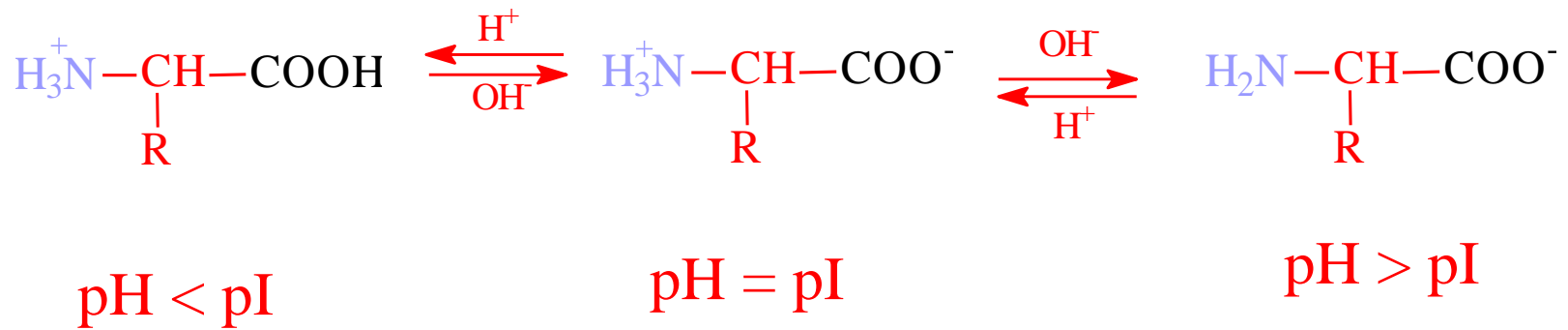
↓ hydroliza kwasna

**D i L aminokwasy**

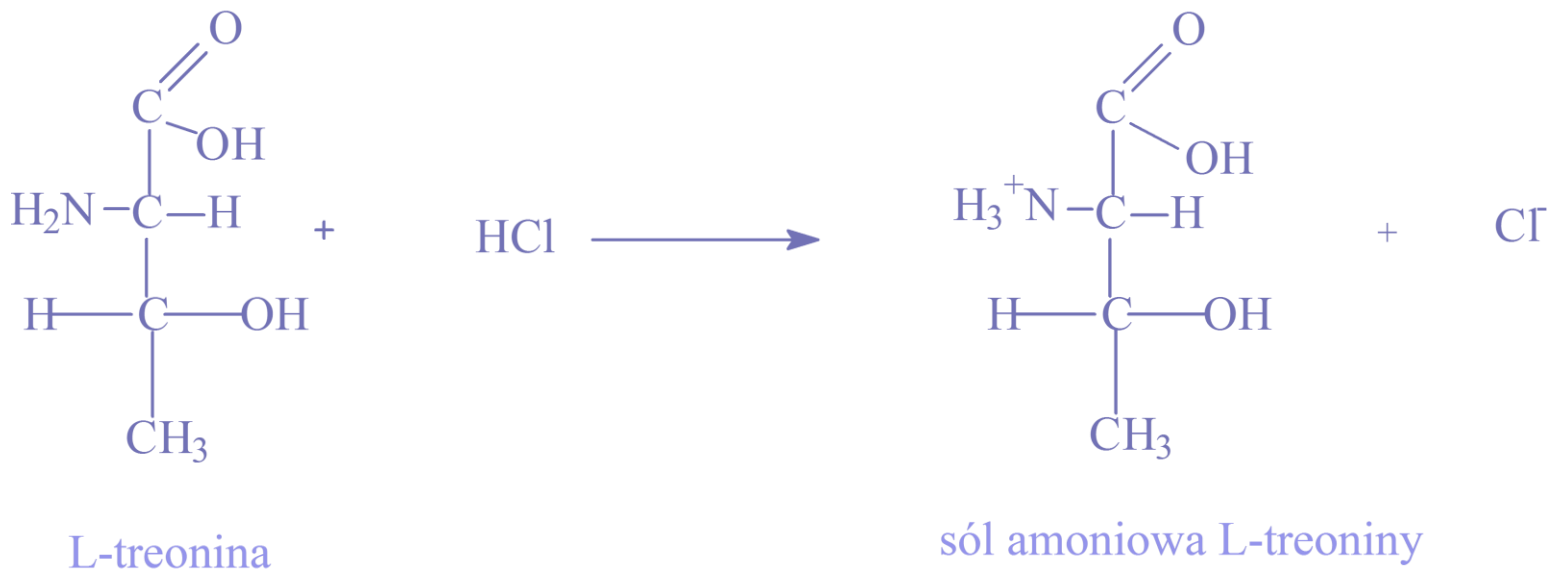
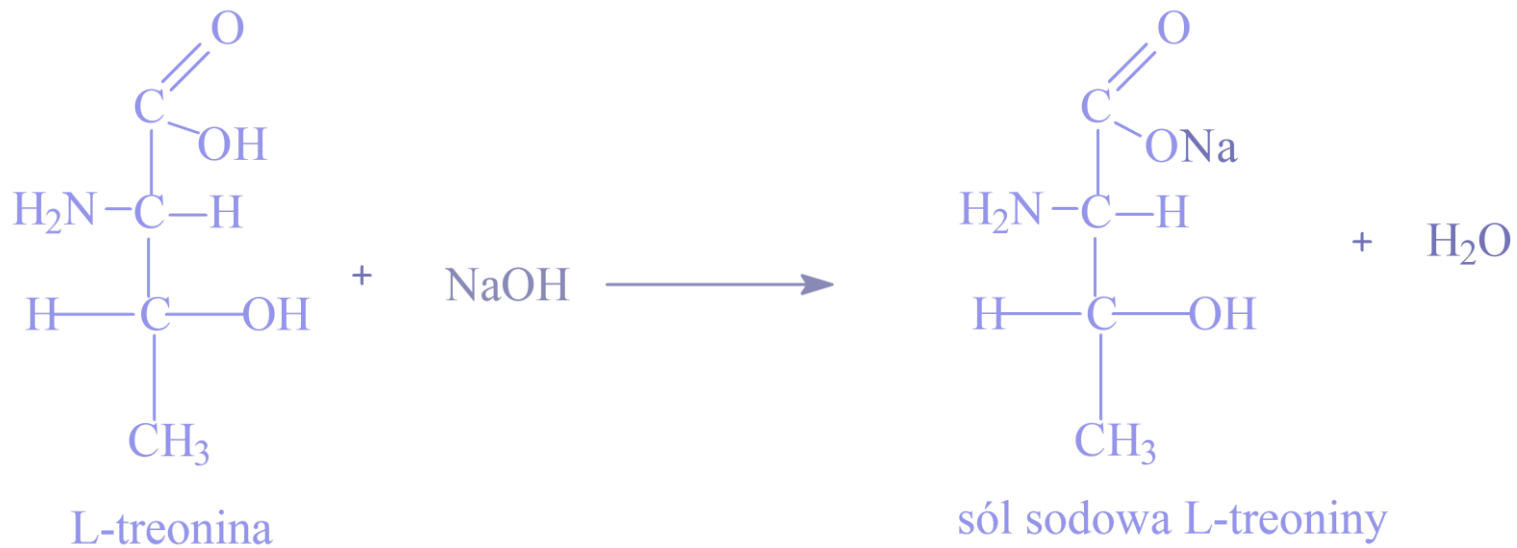


# WŁAŚCIWOŚCI FIZYCZNE AMINOKWASÓW

## WŁAŚCIWOŚCI CHEMICZNE AMINOKWASÓW

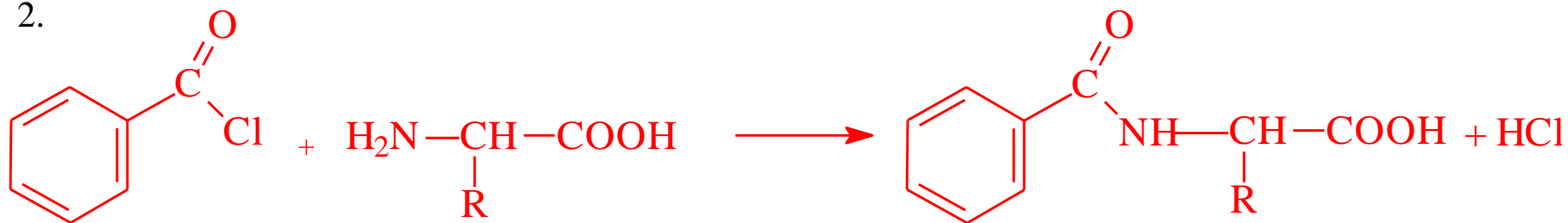


1.

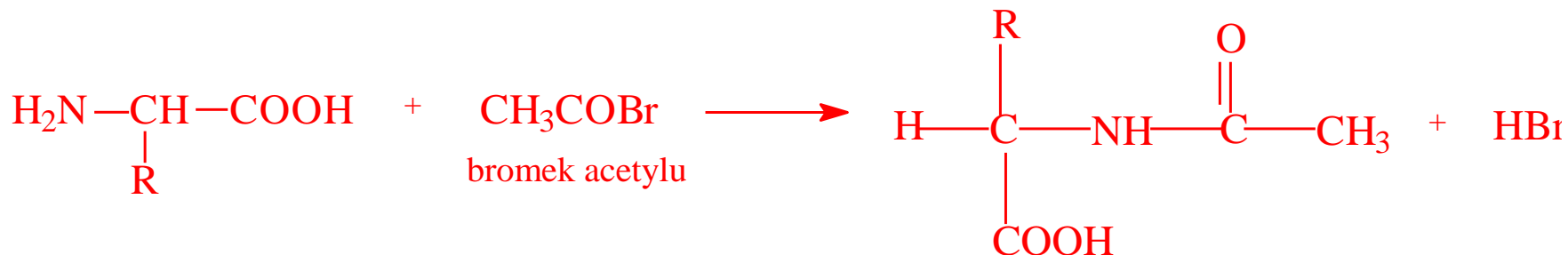


## Reakcje aminokwasów

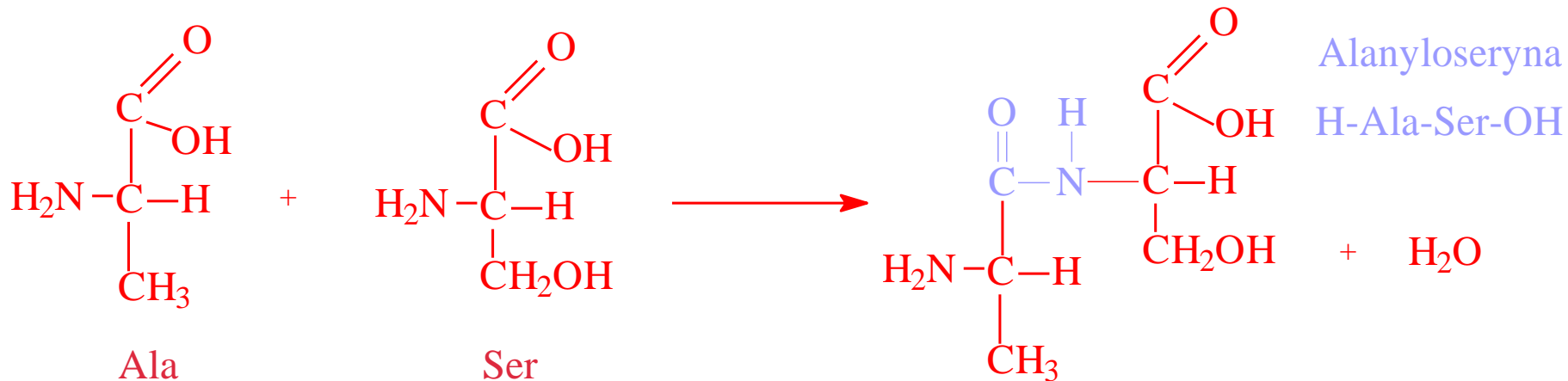
2.



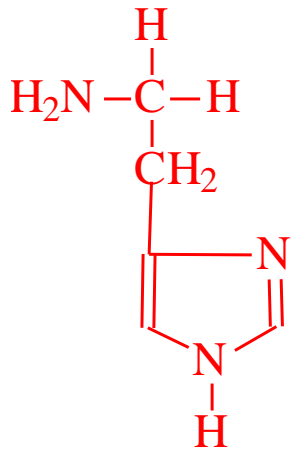
3.



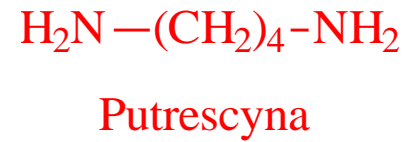
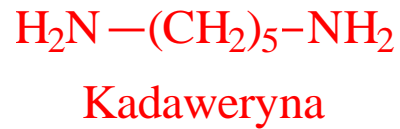
4.



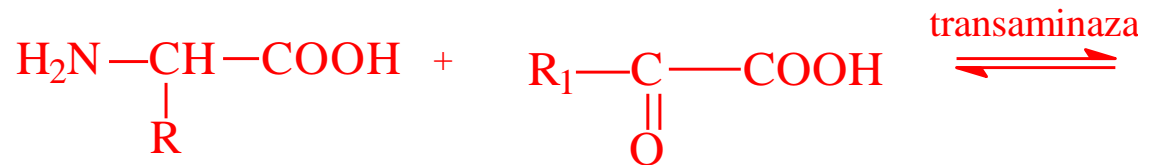
5.



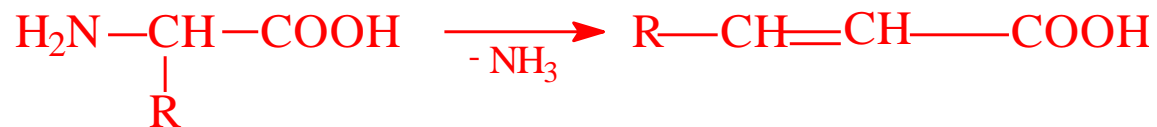
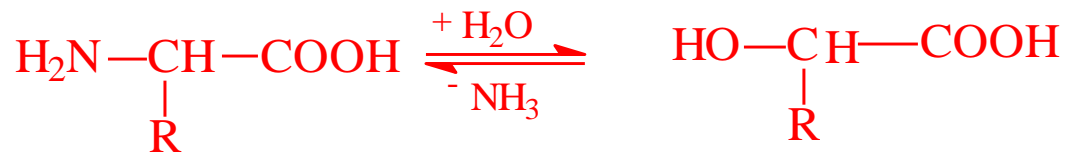
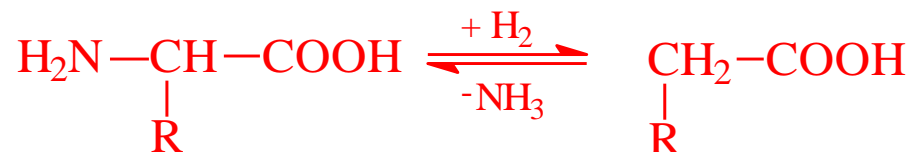
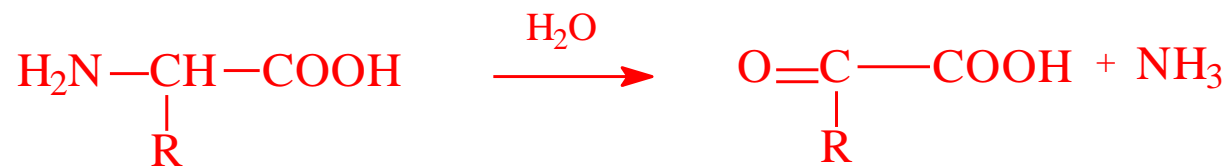
Histamina



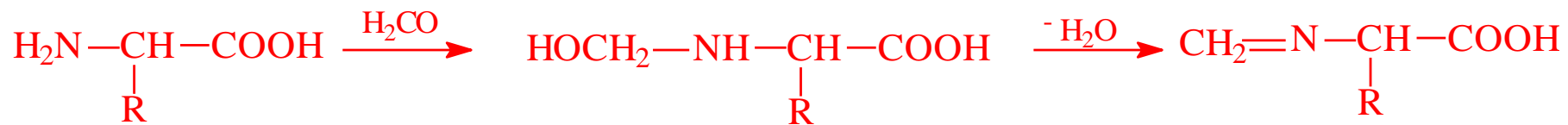
6.



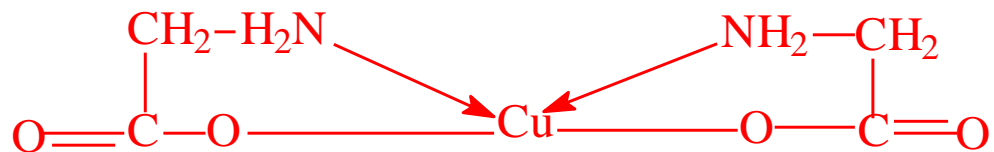
7.



8.



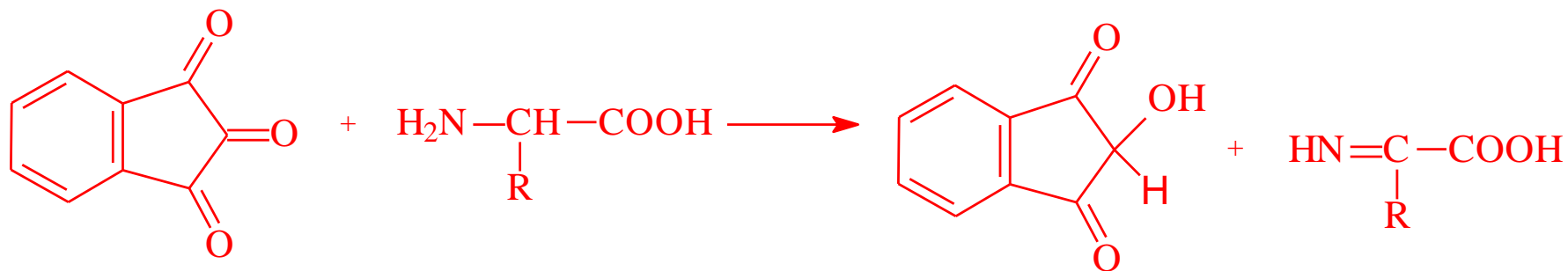
9.



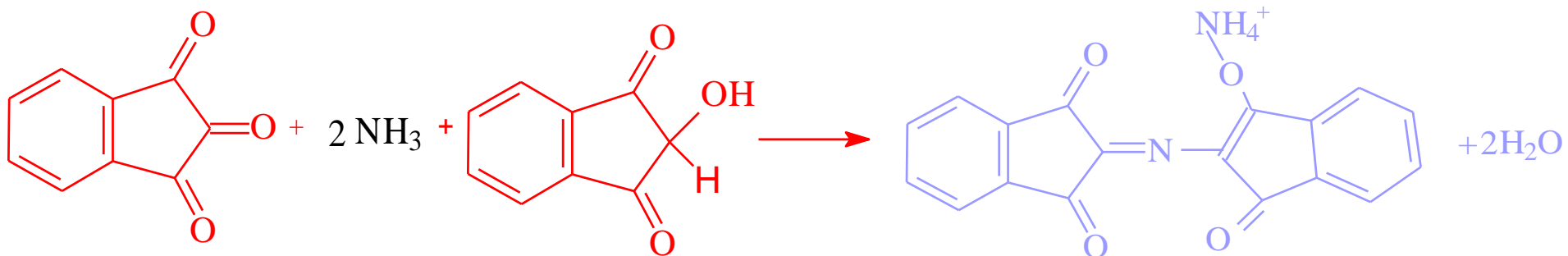
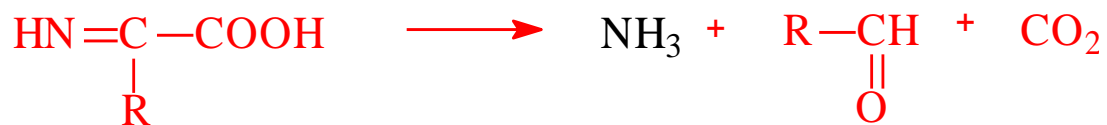
10.



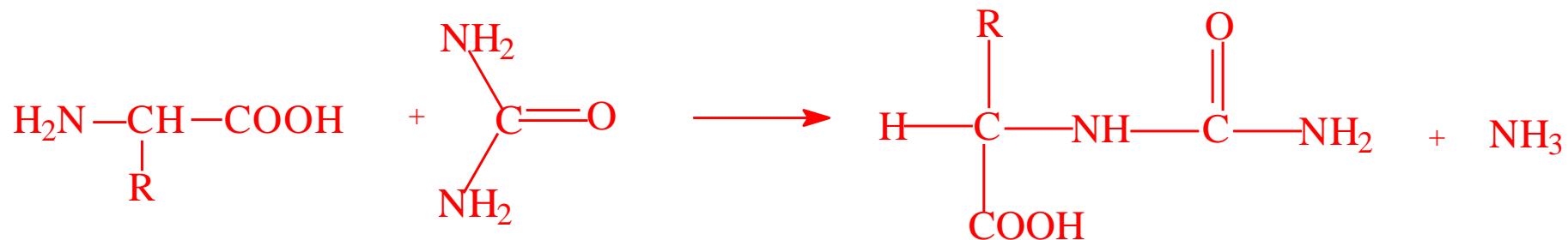
11.



indantrion 1,2,3



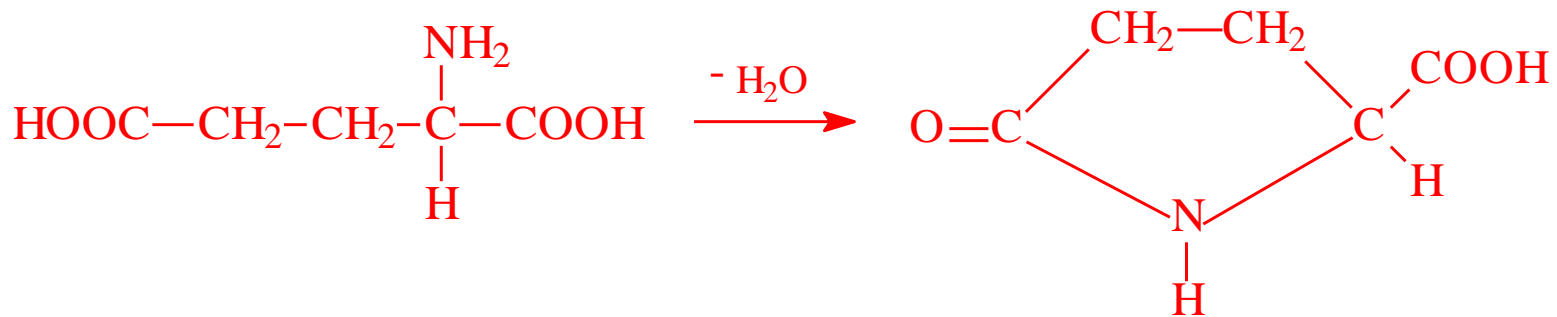
12.



13.



14.





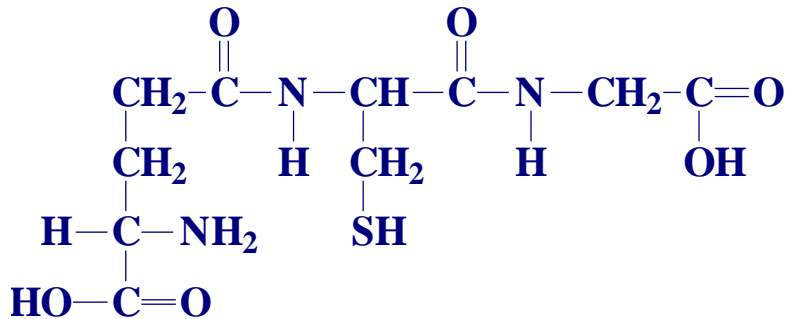


Oligopeptydy, polipeptydy,

# OLIGOPEPTYDY

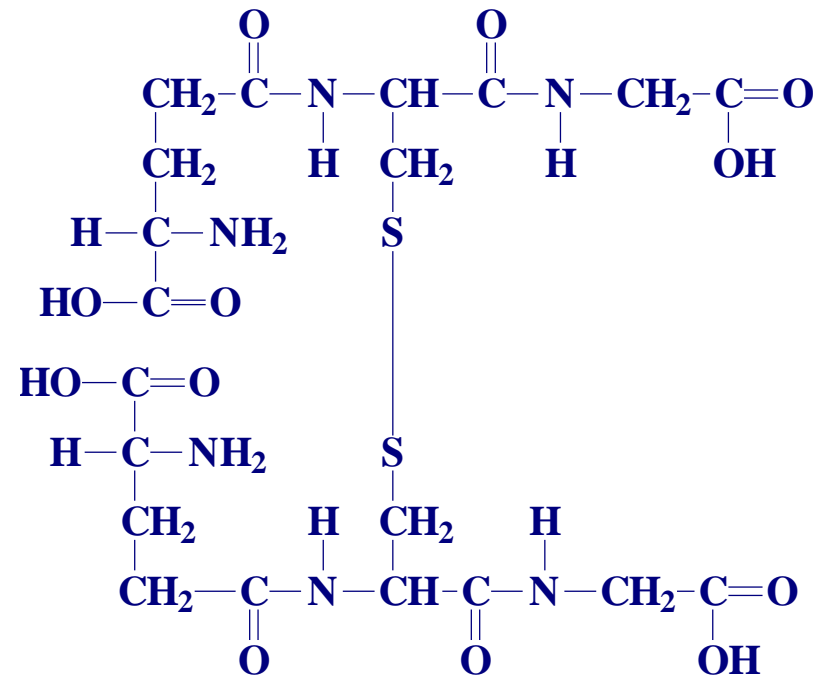
ZWIĄZKI WIELKOCZĄSTECZKOWE ZBUDOWANE NIE WIĘCEJ NIŻ  
Z 10 RESZT AMINOKWASOWYCH

## 1). Glutation: ( $\gamma$ -glutamylcysteinyloglicyna) tripeptyd



**GSH**

**H- $\gamma$ -Glu-Cys-Gly-OH**



**GSSG**

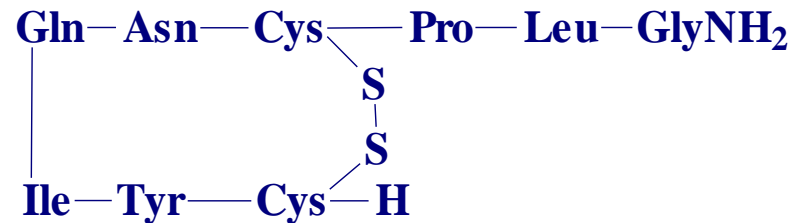
## 2). Angiotensyna II



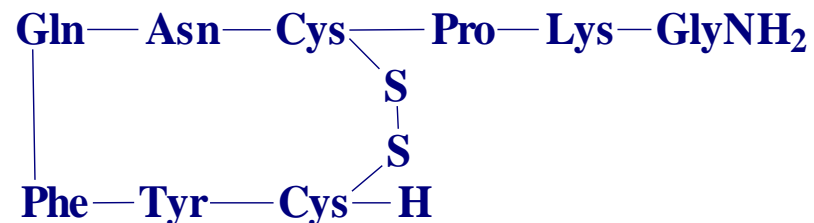
## 3). Bradykinina



## 4). Oksytocyna



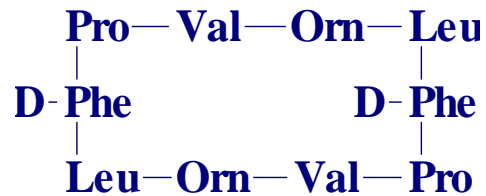
## 5). Wazopresyna



# POLIPEPTYDY

ZWIĄZKI WIELKOCZĄSTECZKOWE ZBUDOWANE Z 10-100 RESZT AMINOKWASOWYCH

## 1). Gramicydyna S



## 2). Substancja P



## 3). Glukagon

## 4). Endorfiny i enkefaliny

## 5). Hormon adrenokortykotropowy

## 6). Insulina