

# SỰ PHOSPHORYL OXY HOA'

**PHOSPHORYL HÓA**:  $\xrightarrow{\text{PHOSPHORYL kinase}}$  gắn  $\text{PO}_4^{3-}$  vào chất  
 NL

**KHỬ PHOSPHORYL**:  $\xrightarrow{\text{NL}}$  cắt  $\text{PO}_4^{2-}$  ra khỏi chất

TRONG CHUỖI TRUYỀN e: **OXY HÓA - KHỬ**: e từ nơi thế năng thấp  $\rightarrow$  cao  
 luôn đi vs nhau  
**PHOSPHORYL HÓA ADP**:  $\text{ADP} \xrightarrow{\text{NL}} \text{ATP}$

**LIÊN KẾT NGHỀO NĂNG LƯỢNG** TP  $\rightarrow$  1000 - 5000 calo (este) (bền)

**LIÊN KẾT PHOSPHAT GIỮA NĂNG LƯỢNG**  
 TP  $\rightarrow$  >7000 calo (o bền).

$\text{-P} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{P}$   
**ANHYDRIT PHOSPHAT (PYRO PHOSPHAT)**  
 $\text{PO}_3 - \text{PO}_3$   
 ATP  $\rightarrow$  7,3 kcal/mol.  $\Delta G = -7,3$

$\text{-COO} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{P}$   
**ACYL PHOSPHAT**  
 $\text{PO}_3 - \text{acyl}$   
 1,3-DPG.  $\Delta G = -11,8$

~~CO~~  $\text{-CH}_2\text{-O} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{P}$   
**ENOL PHOSPHAT**  
 $\text{PO}_3 - \text{enol}$   
 PEP (PHOSPHO ENOL PYRUVIC)  $\Delta G = -14,8$

$\text{-NH} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{P}$   
**AMID PHOSPHAT**  
 $\text{PO}_3 - \text{amin}$   
 PHOSPHO CRETININ  $\Delta G = -10,3$

$\text{-C} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{SCoA}$   
**THIOESTE**: (-S CoA) — succinyl CoA  
 acyl CoA  $\Delta G = -7,7$