

**produit ionique**  
de l'eau

$$K_e = \frac{[H_3O^+]_{eq} \cdot [HO^-]_{eq}}{c^{o2}}$$



**constante**  
**d'acidité**

$$K_A = \frac{[H_3O^+]_{eq} \cdot [A^-]_{eq}}{[AH]_{eq} \cdot c^o}$$

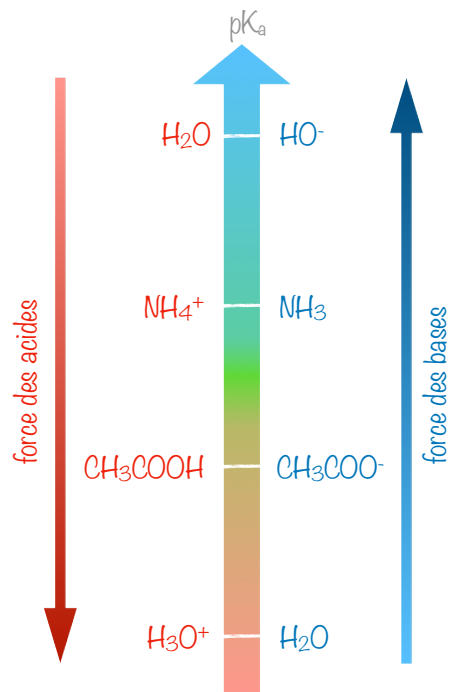
$$pK_A = -\log(K_A)$$

$$\text{si } \tau = \frac{x_f}{x_{\max}} = 1$$

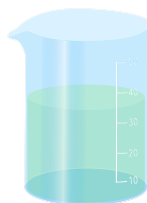
acide fort

$$\text{si } \tau = \frac{x_f}{x_{\max}} < 1$$

acide faible



solution tampon



pH varie peu  
si ajout d'acide,  
de base ou dilution

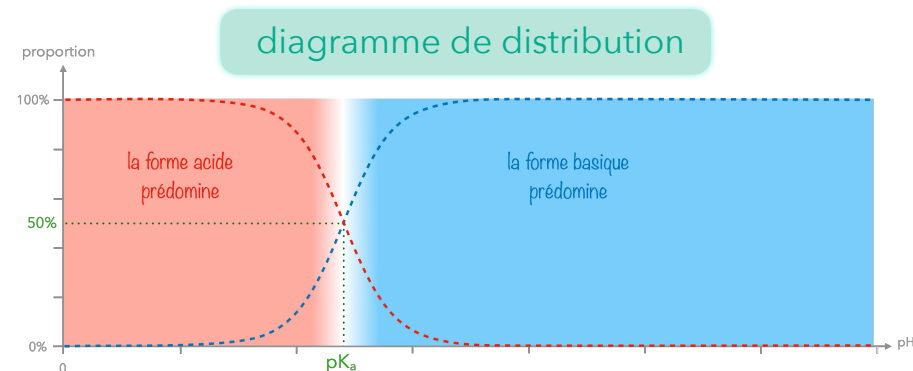
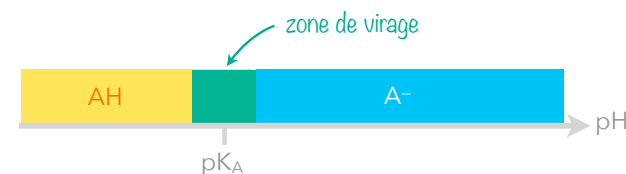


diagramme de prédominance

indicateur coloré



acides aminés

| $pK_{A1}$ | 7                             | $pK_{A2}$        | pH |
|-----------|-------------------------------|------------------|----|
| -COOH     | -COO <sup>-</sup>             |                  |    |
|           | -NH <sub>3</sub> <sup>+</sup> | -NH <sub>2</sub> |    |
|           |                               |                  |    |