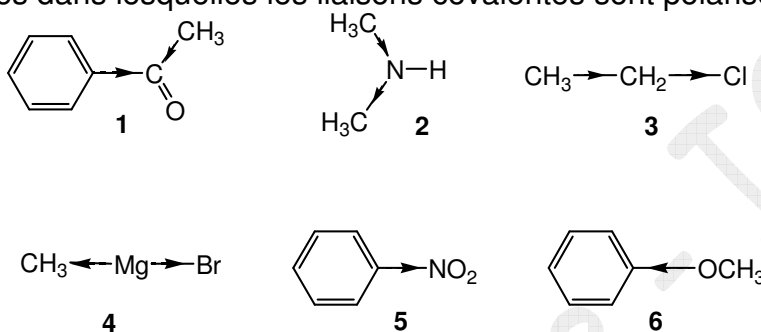


Exercices Complémentaires

Chapitre 4 : Base de la réactivité des molécules organiques : effets électroniques

4.1 Exercice 4.1

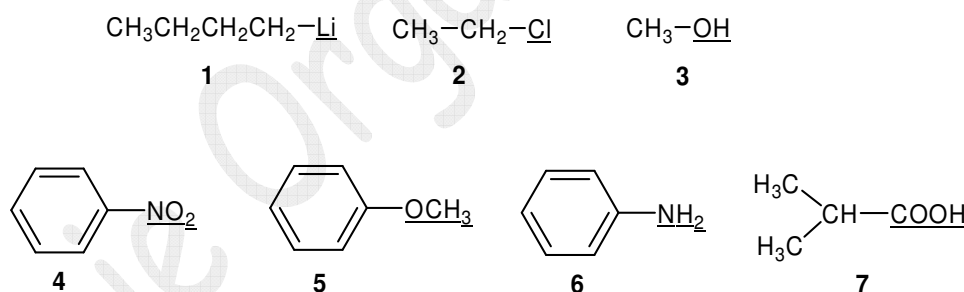
Indiquer les structures dans lesquelles les liaisons covalentes sont polarisées correctement :



CORRECTION Exo 4.1 (page 4)

4.2 Exercice 4.2

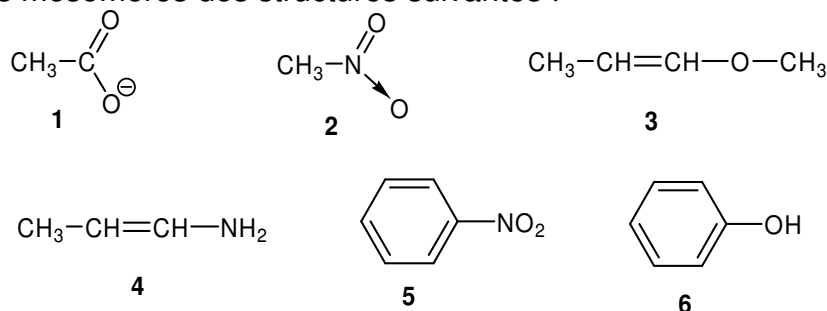
Indiquer pour chacune des molécules suivantes le sens de l'effet inductif (+I, -I) et éventuellement mésomère (+M, -M) qu'induisent les atomes ou les groupements d'atomes soulignés :



CORRECTION Exo 4.2 (page 4)

4.3 Exercice 4.3

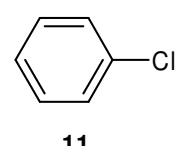
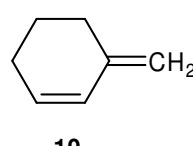
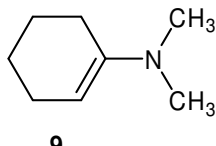
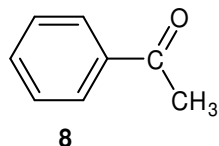
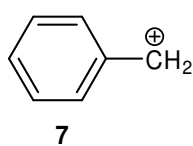
Écrire les formules mésomères des structures suivantes :



CORRECTION Exo 4.3 (page 5)

4.4 Exercice 4.4

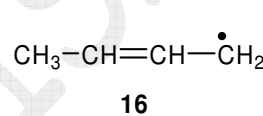
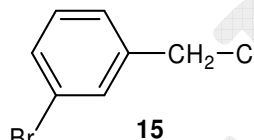
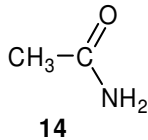
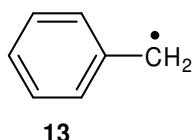
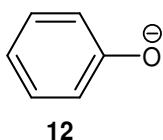
Écrire les formules mésomères des structures suivantes :



CORRECTION Exo 4.4 (page 6)

4.5 Exercice 4.5

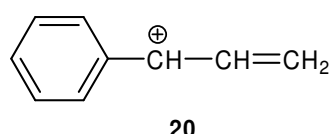
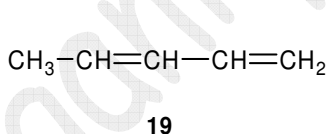
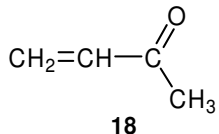
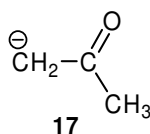
Écrire les formules mésomères des structures suivantes :



CORRECTION Exo 4.5 (page 7)

4.6 Exercice 4.6

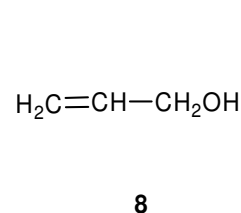
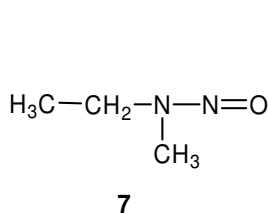
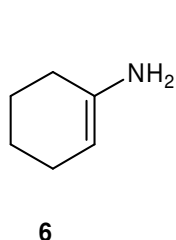
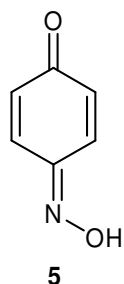
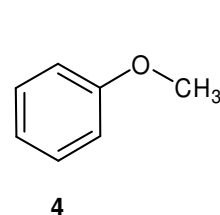
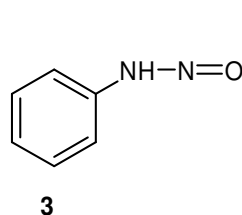
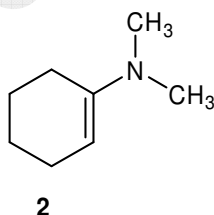
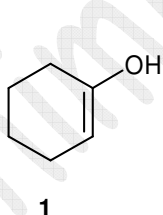
Écrire les formules mésomères des structures suivantes :



CORRECTION Exo 4.6 (page 8)

4.7 Exercice 4.7

Écrire les formes tautomères des composés suivants lorsqu'elles existent.



CORRECTION Exo 4.7 (page 9)

4.8 Exercice 4.8

En s'aidant de la classification périodique des éléments, dire quel est l'élément le plus électronégatif entre :

- a) oxygène et fluor
- b) oxygène et phosphore
- c) azote et aluminium
- d) carbone et sodium
- e) carbone et magnésium
- f) carbone et lithium

CORRECTION Exo 4.8 (page 9)

Chimie Organique - ISPB

Correction des exercices complémentaires

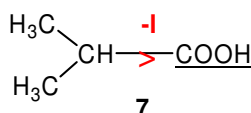
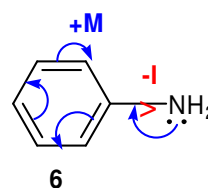
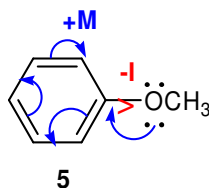
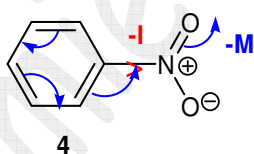
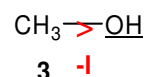
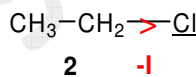
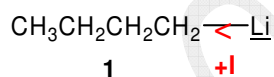
Chapitre 4: Base de la réactivité des molécules organiques : effets électroniques

4.1 Exercice 4.1

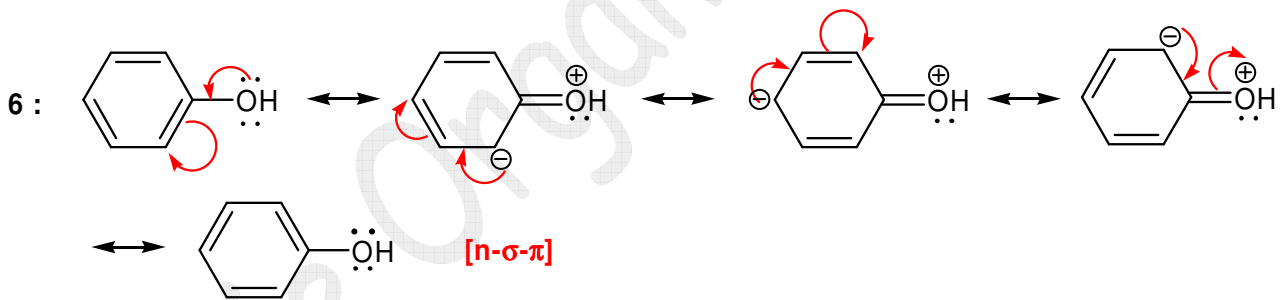
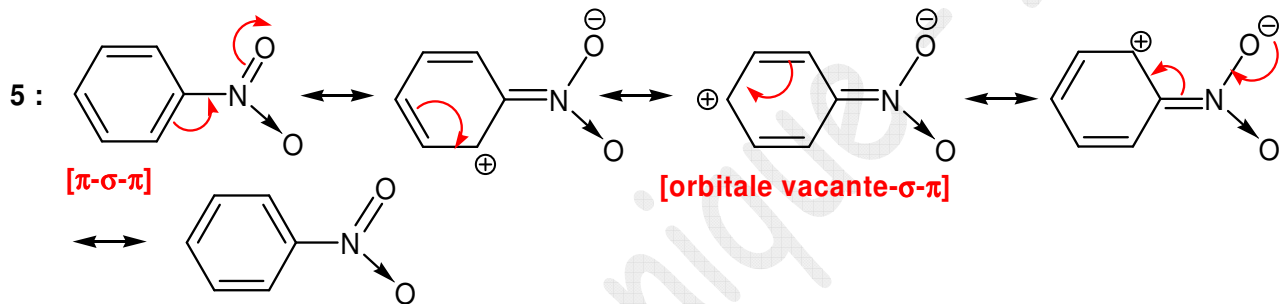
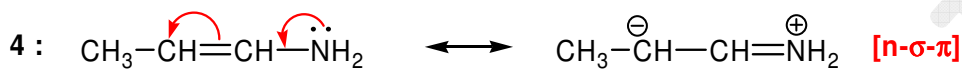
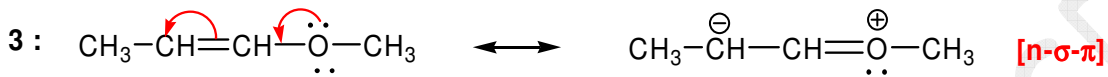
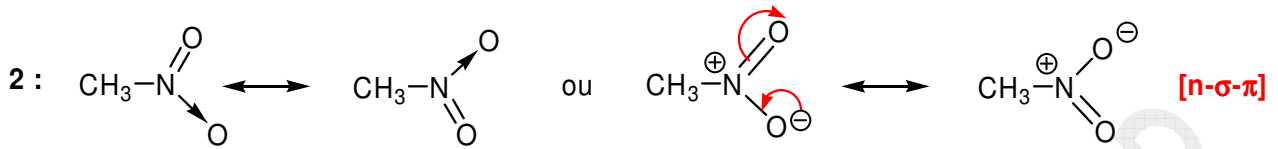
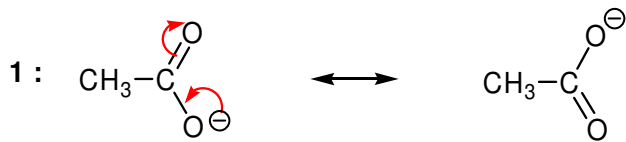
Les structures dans lesquelles les liaisons covalentes sont polarisées correctement : **1, 3, 4** et **5**.

4.2 Exercice 4.2

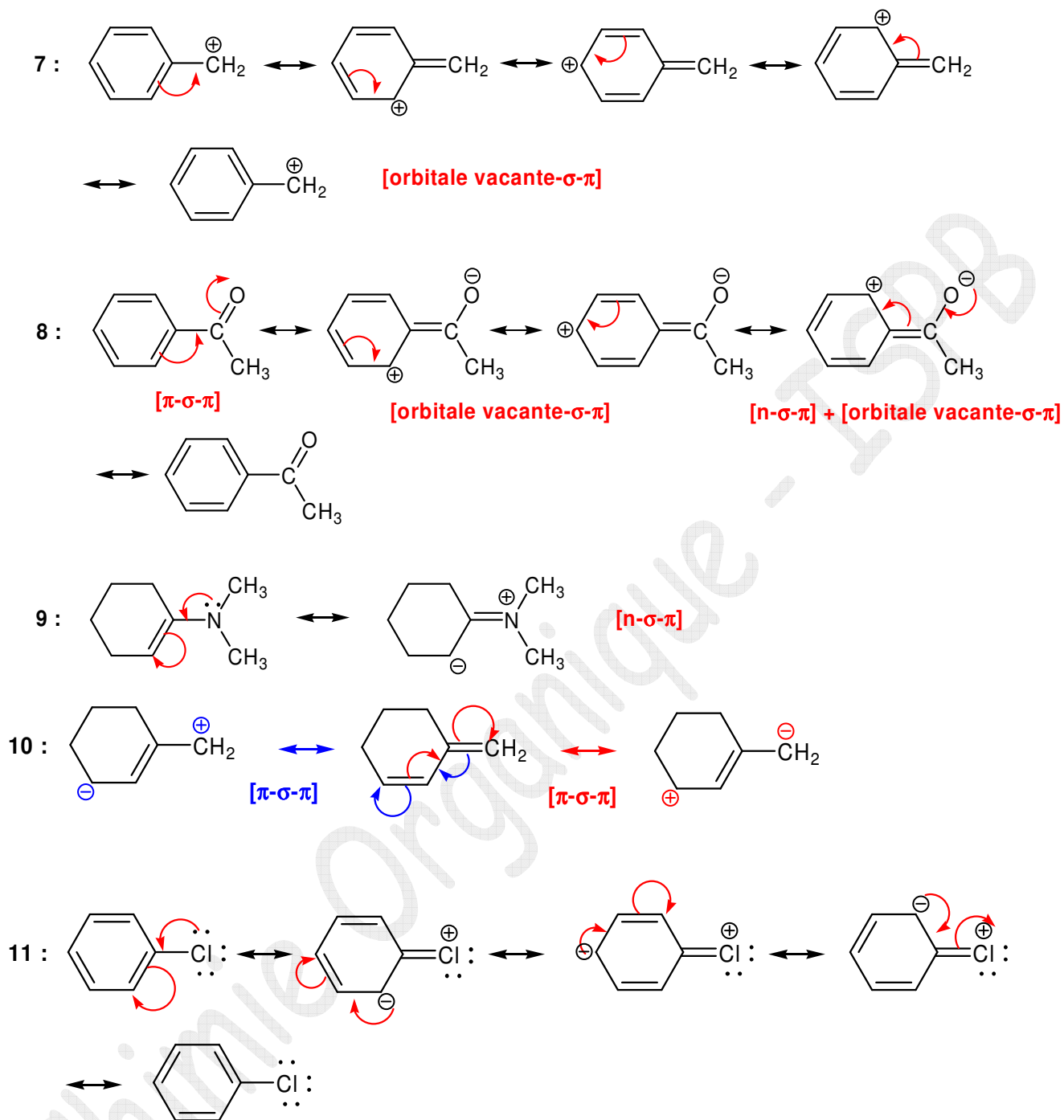
Sens de l'effet inductif (+I, -I) et éventuellement mésomère (+M, -M) des atomes ou des groupements d'atomes soulignés dans les molécules considérées :



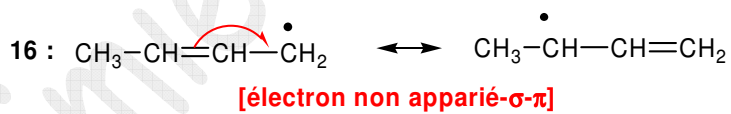
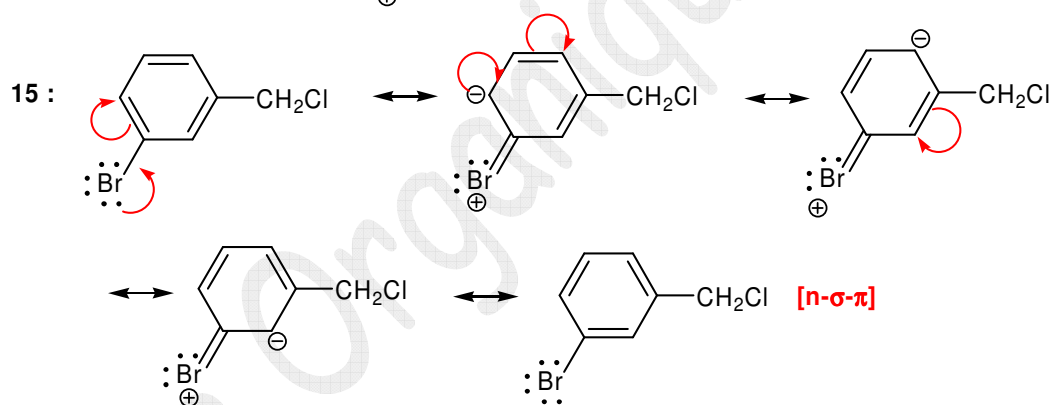
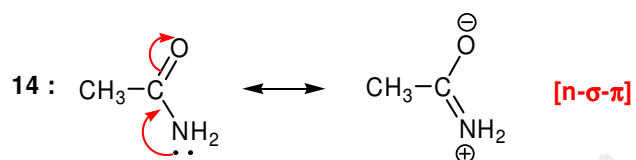
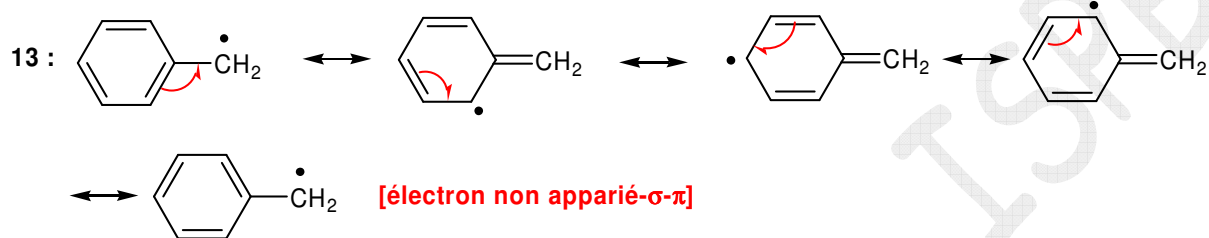
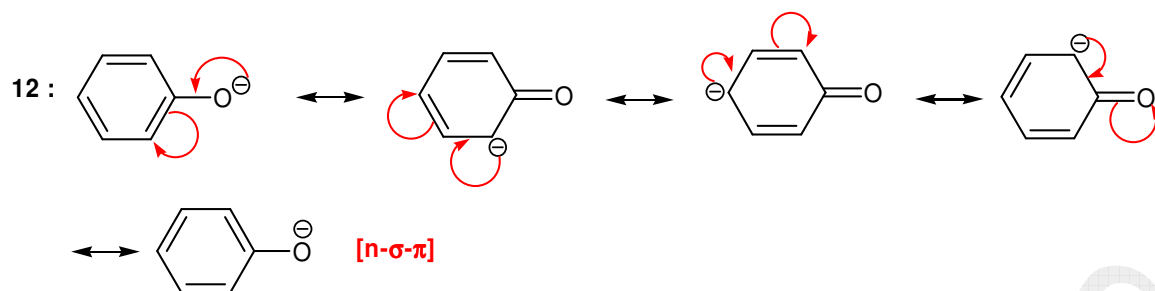
4.3 Exercice 4.3



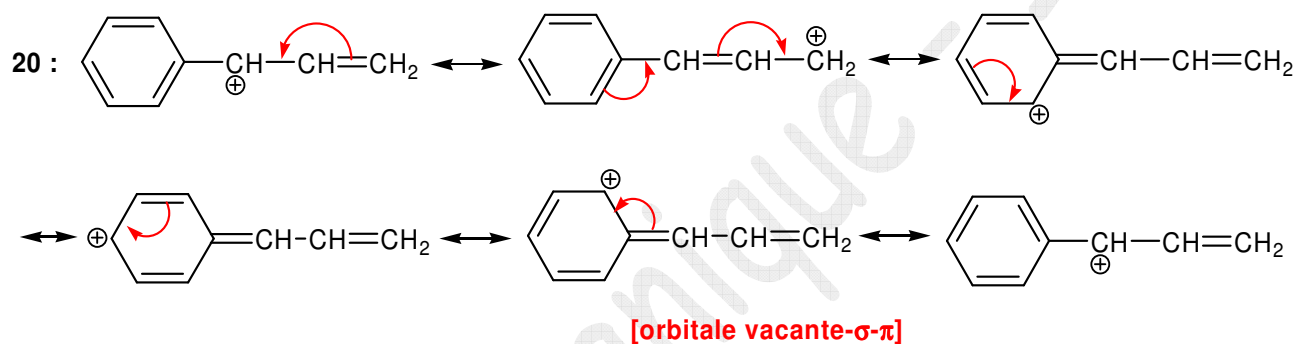
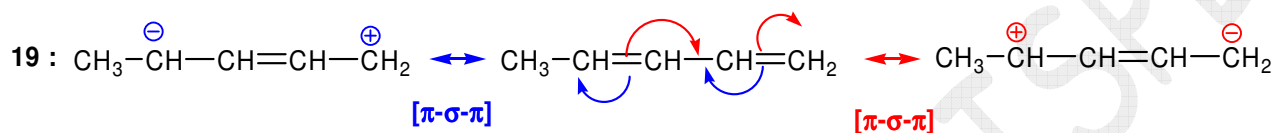
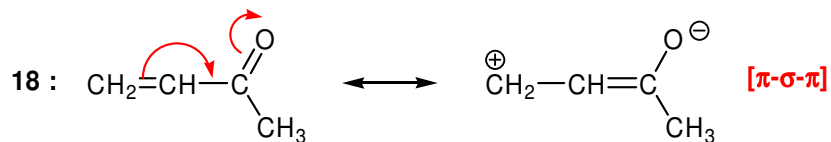
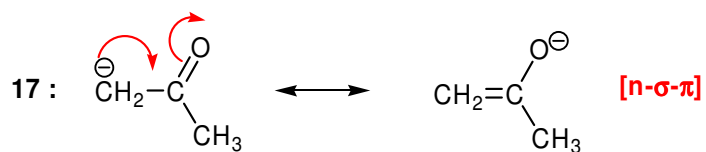
4.4 Exercice 4.4



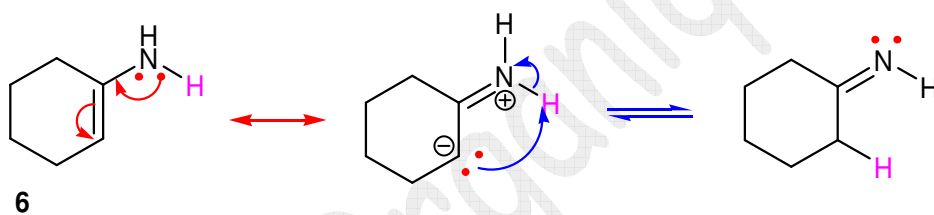
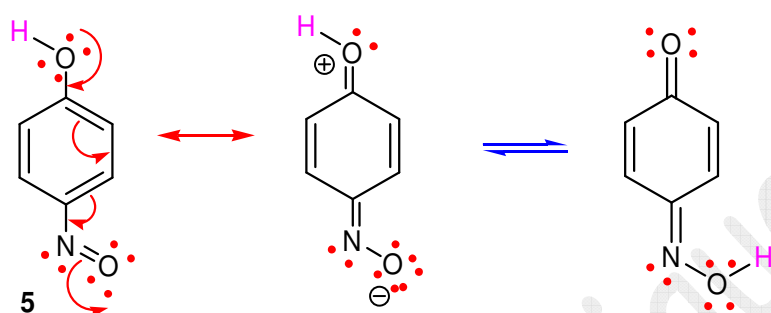
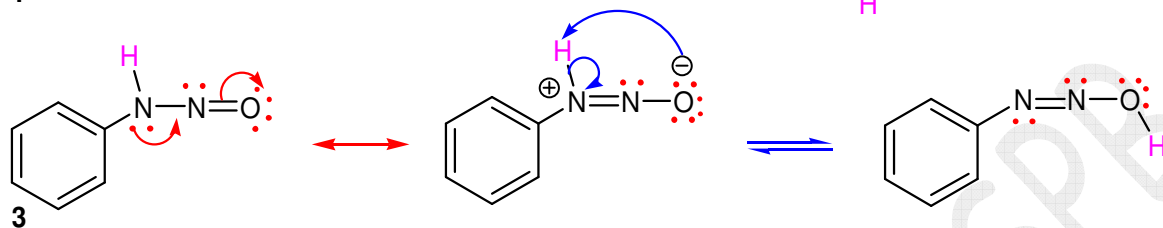
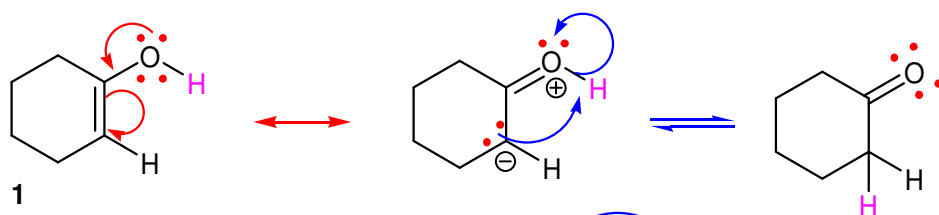
4.5 Exercice 4.5



4.6 Exercice 4.6



4.7 Exercice 4.7



2, 4, 7, 8: pas de tautomérie

4.8 Exercice 4.8

L'élément le plus électro-négatif :

- a) F > O b) O > P c) N > Al
d) C > Na e) C > Mg f) C > Li