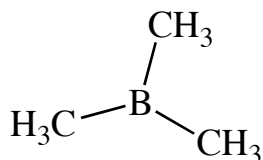


### Ex 33 - Electrophiles/nucleophiles

Classify the following as nucleophiles or electrophiles. In some cases there may be nucleophilic and electrophilic portions of the molecule. Where ionic compounds are given, identify the nucleophilic anion. Cation counterions are very rarely electrophilic species.



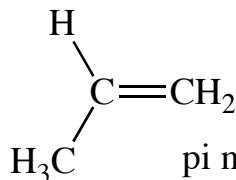
Electrophile  
(Lewis acid)



$\text{N}_3^-$ , azide anion,  
nucleophile



Hydroxide, nucleophile



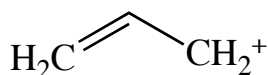
pi nucleophile



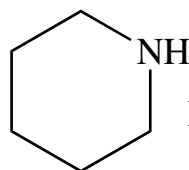
Nucleophile



cyanide, nucleophile



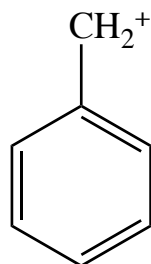
Electrophile  
(Lewis acid)



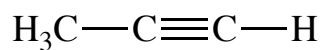
Nucleophile



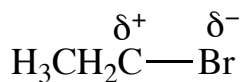
$\text{CH}_3\text{CH}_2\text{O}^-$  Ethoxide,  
nucleophile



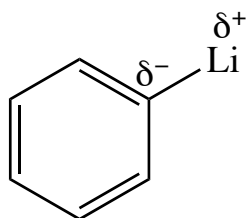
Benzyl cation,  
electrophile,  
Lewis acid



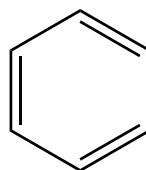
pi nucleophile



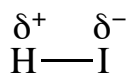
Electrophile



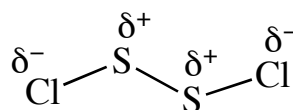
Nucleophile



pi nucleophile



Electrophile, Brønsted acid



Electrophile



Bromide, nucleophile