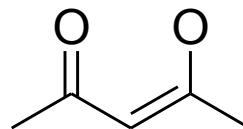
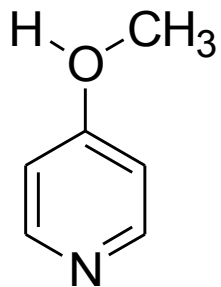
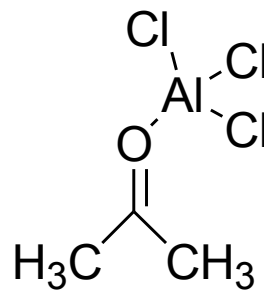
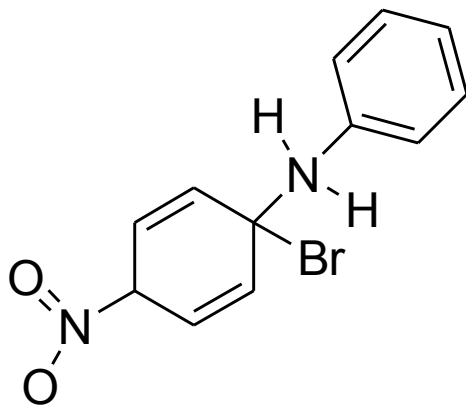
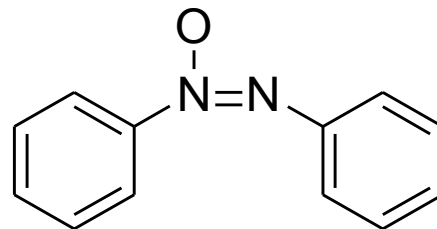
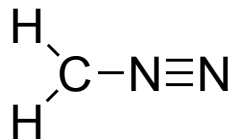


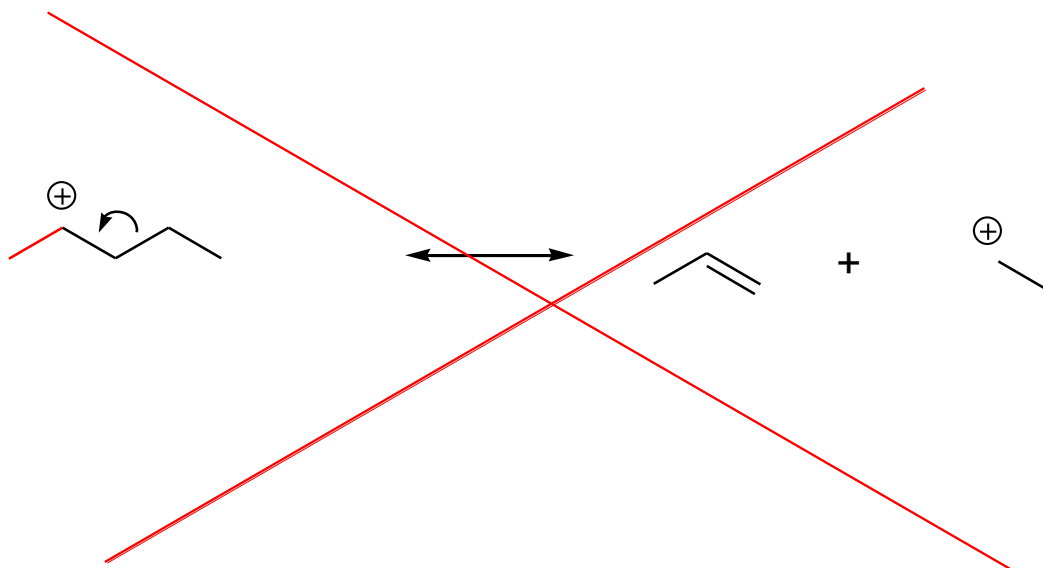
MEZOMERNÍ EFEKTY, RESONANČNÍ STRUKTURY



» Doplňte volné elektronové páry a náboje na atomech

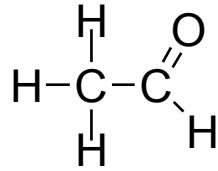
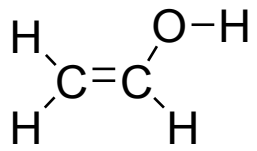


Posun pouze π elektronů, nezanikají σ -vazby



Provádíme posuny elektronů pouze z π vazeb a elektronů v p-orbitalech

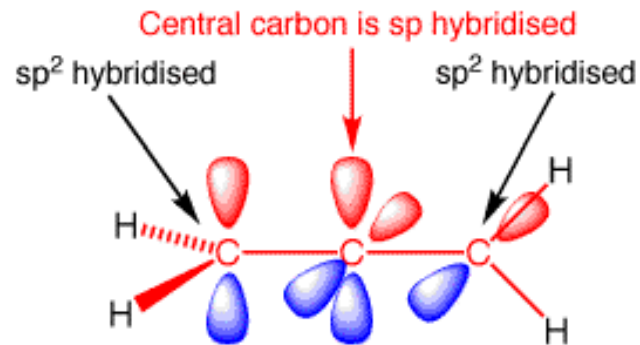
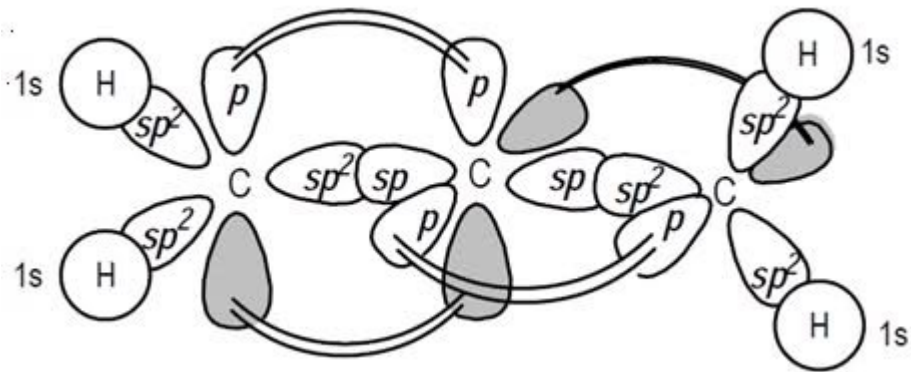




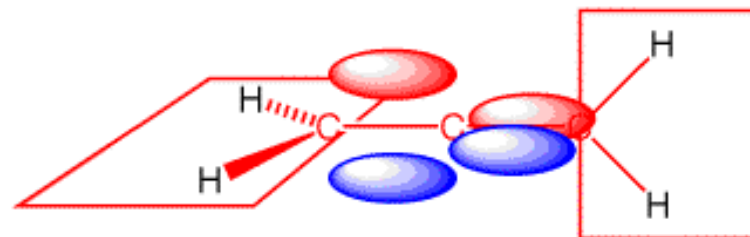
TAUTOMERY



Překryv orbitalů



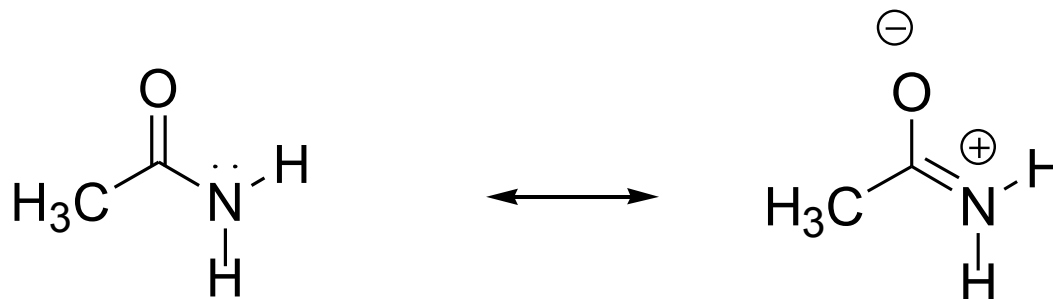
The π bonds formed as a result of the overlap of the p-orbitals must be at right angles to each other.



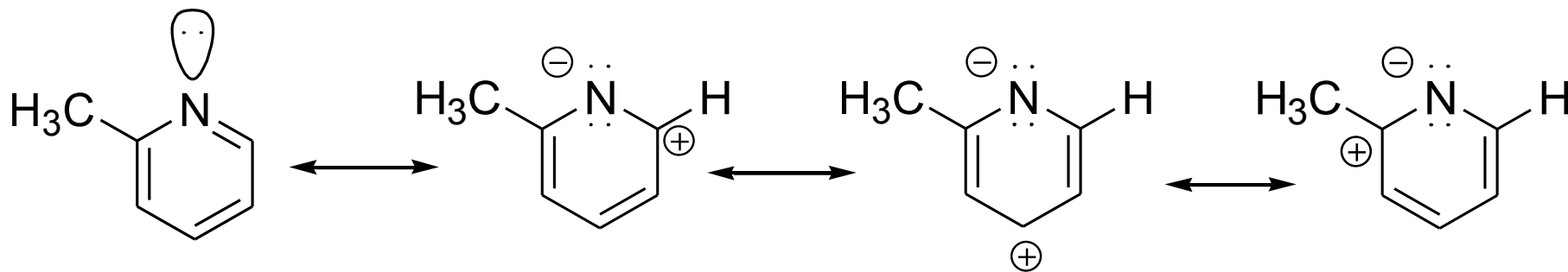
Not only are the two π bonds perpendicular, but the two methylene groups are too.



» V jakém hybridním stavu je atom dusíku v molekule acetamidu



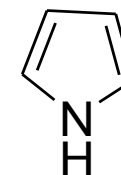
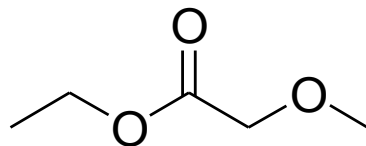
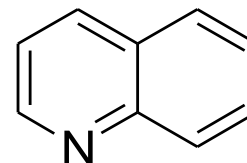
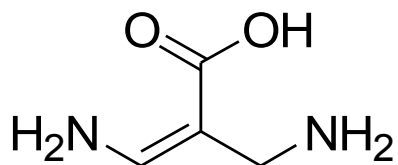
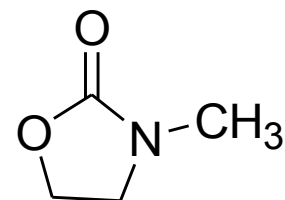
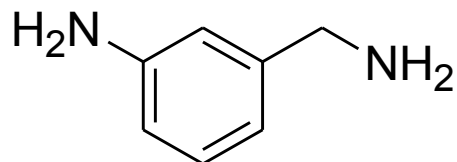
sp^2



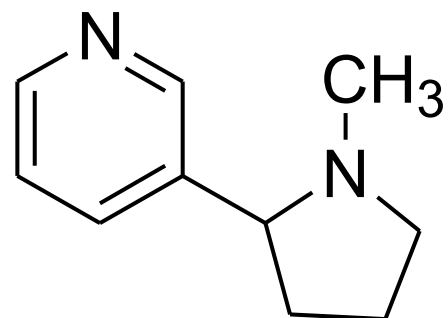
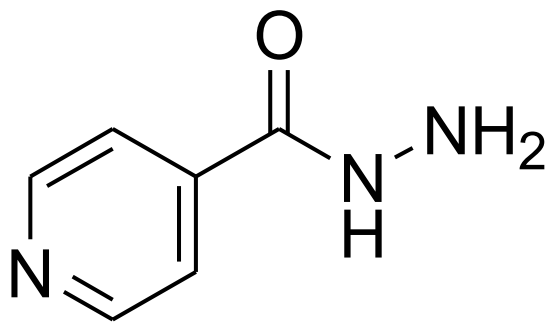
sp^2



» Identifikujte volné elektronové páry v následujících molekulách a určete, zda jsou lokalizované nebo delokalizované



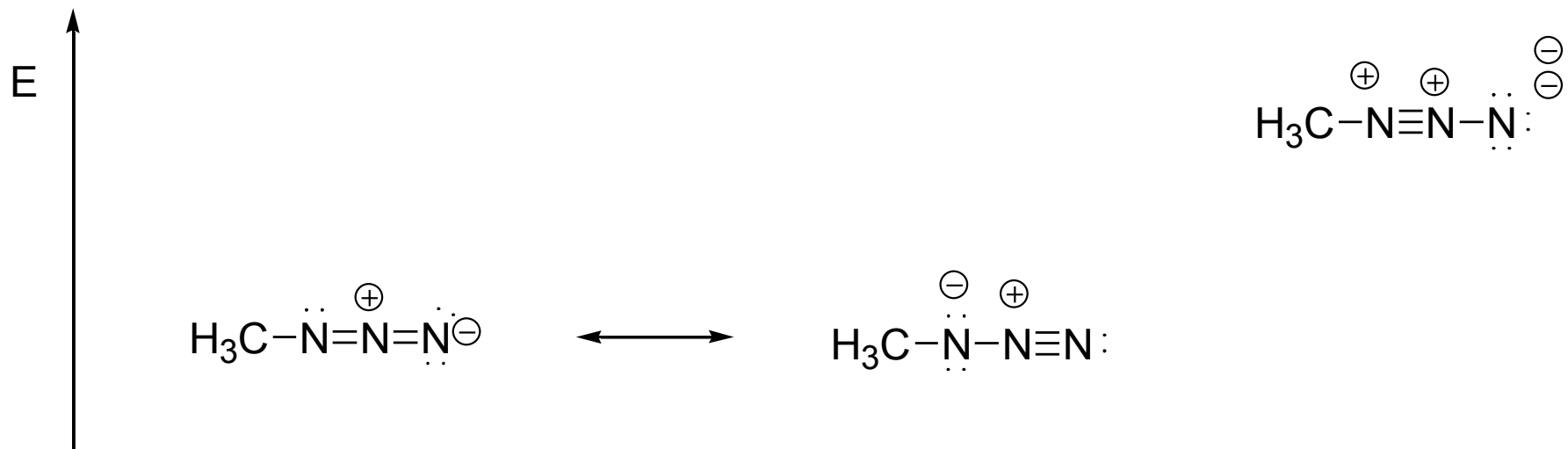
» Určete, které elektronové páry dusíku jsou reaktivní a které nereaktivní (delokalizované)



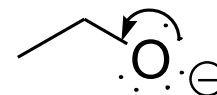
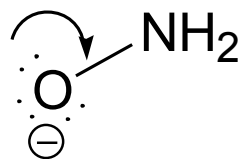
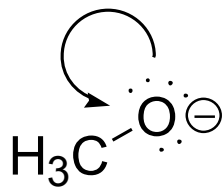
Struktury musí mít stejný počet nepárových elektronů



Struktury podobné energie



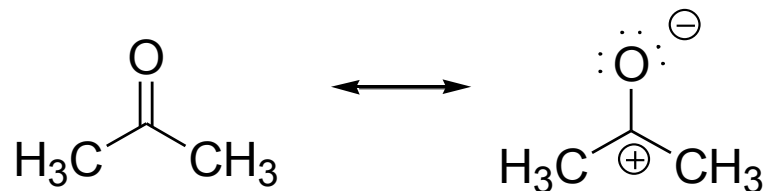
Nepřekračovat oktet pro atomy druhé periody



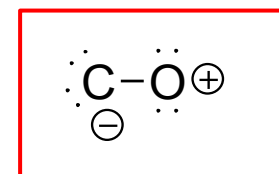
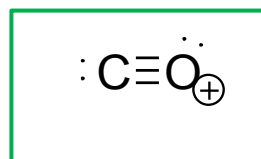
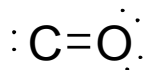
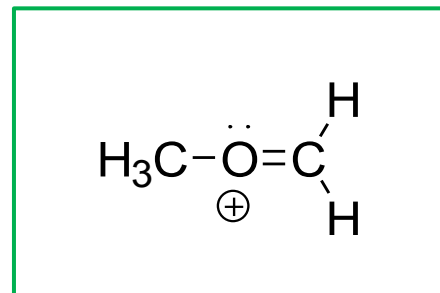
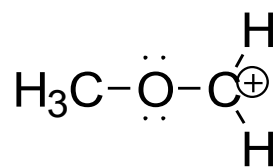
NIKDY NE



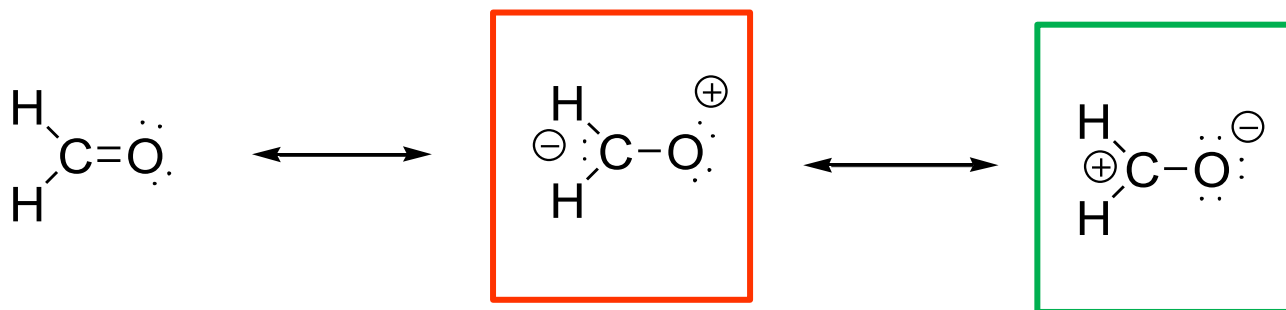
Prvky druhé periody ale mohou mít méně elektronů než je oktet



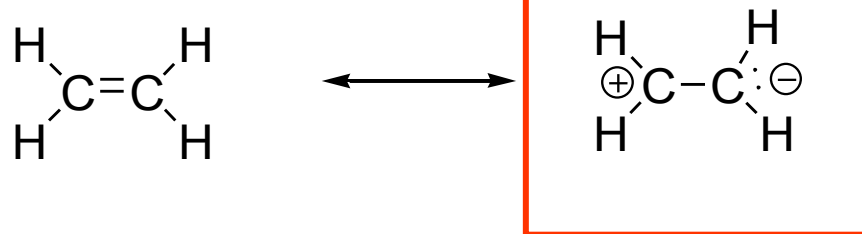
Mez. struktury, kde mají všechny atomy elektronový oktet mají většinou nižší energii než struktury s elektronově deficitními atomy



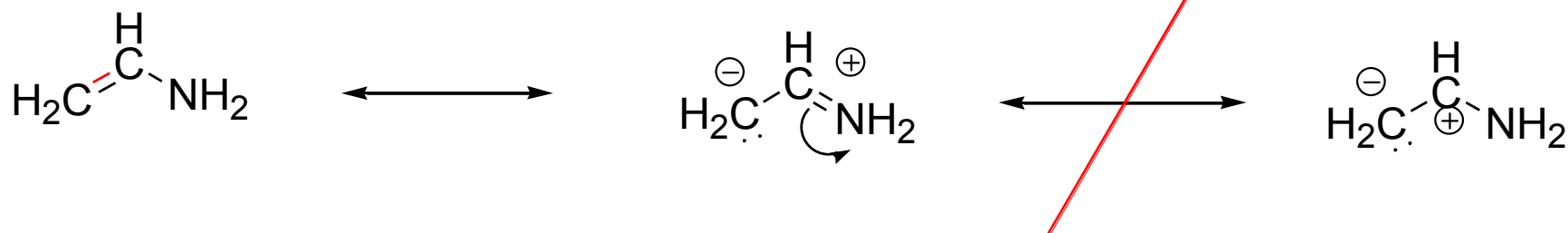
Energeticky výhodné jsou struktury, kde je záporný náboj lokalizovaný na elektronegativnějším atomu



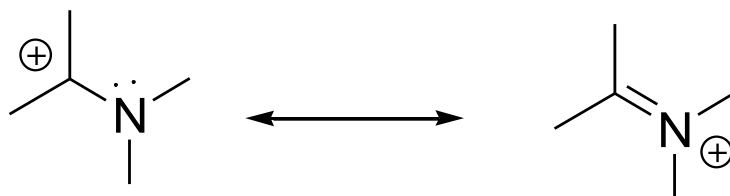
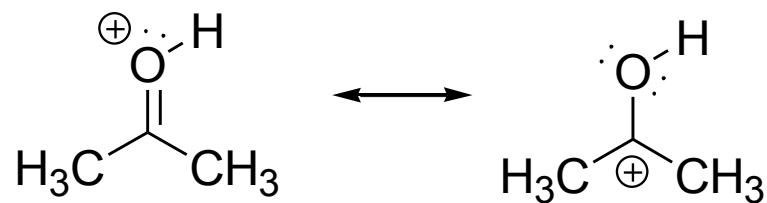
Vznik oddělených nábojů zvyšuje energii struktury a tím snižuje její příspěvek k výslednému rezonančnímu hybridu



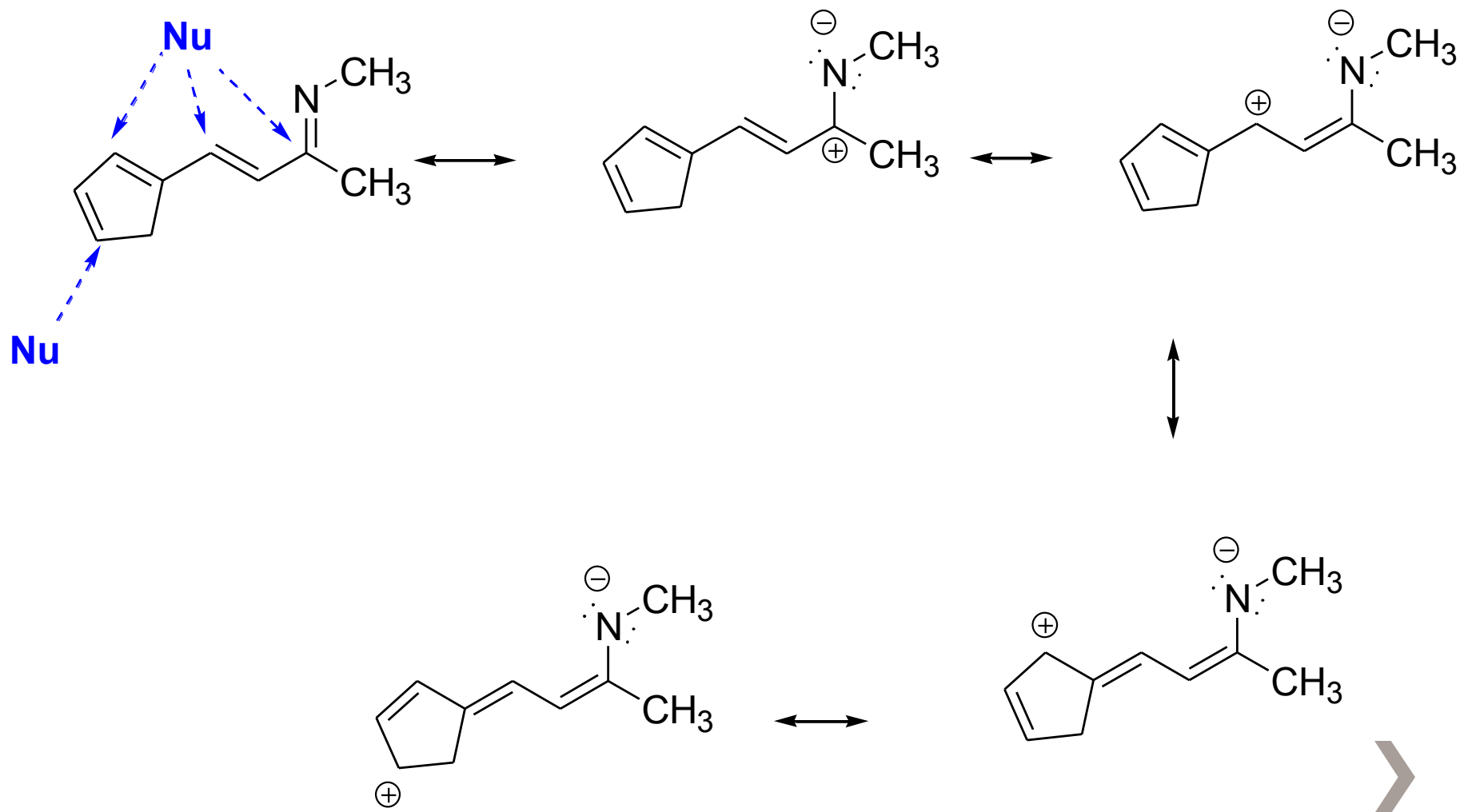
Vyhnut se strukturám, kde by sousední uhlíkové atomy měly mít opačné náboje !!



Atomy s vyšší elektronegativitou než uhlík (N, O, Cl...) mohou mít kladný náboj, ale jen pokud mají oktet



» Identifikujte v molekule atomy, na kterých bude docházet k ataku nukleofilu



» Identifikujte v molekule atomy, na kterých bude docházet k ataku elektrofilu

nezapomeňte
také atak E^+ na atomu N

