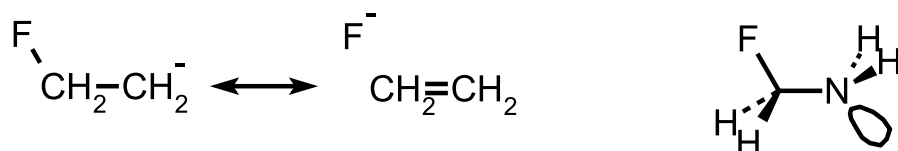


## negative hyper-conjugation

The effect of donation of electron density from filled  $\pi$  or  $n_{\pi}$ -orbitals to the symmetry adapted  $\sigma^*$ -orbital(s) of  $\sigma$ -bond(s) of a molecular entity resulting in building  $\pi$ -character into bonds that nominally possess only  $\sigma$ -character. The consequences of the effect are, for example, in elongation of the C–F bond in the  $\beta$ -fluoroethyl anion and stabilization of the anti-periplanar conformation of fluoromethylamine.



**Source:**

PAC, 1999, 71, 1919 (*Glossary of terms used in theoretical organic chemistry*) on page 1954