

## spin polarization

Static and dynamic spin polarization effects are distinguished. The static polarization of an electron spin occurs in the C–H bonds of aromatic radicals where the  $\sigma$ -electron closest to an unpaired  $\pi$ -electron tends to have its spin parallel to that of the  $\pi$ -electron. Likewise, static spin polarization arises in the  $\pi$ -system of conjugated radicals: the electron of the doubly occupied molecular orbital prefers to take a closer spatial position to the odd one, which spin is parallel to the latter. The effect reflects the energy unfavourable situation if an electron of opposite spin were to come nearby.

**Source:**

PAC, 1999, 71, 1919 (*Glossary of terms used in theoretical organic chemistry*) on page 1963