doi:10.1351/goldbook.G02595

gauche effect

1. The stabilization of the gauche (synclinal) conformation in a two carbon unit bonded vicinally to electronegative elements e.g. 1,2-difluoroethane.
2. The destabilization of the gauche (synclinal) conformation in a two carbon unit bonded vicinally to large, soft and polarizable elements such as sulfur and bromine.

Source:
PAC, 1996, *68*, 2193 *(Basic terminology of stereochemistry (IUPAC Recommendations 1996))* on page 2209

 Copyright © 2014 IUPAC