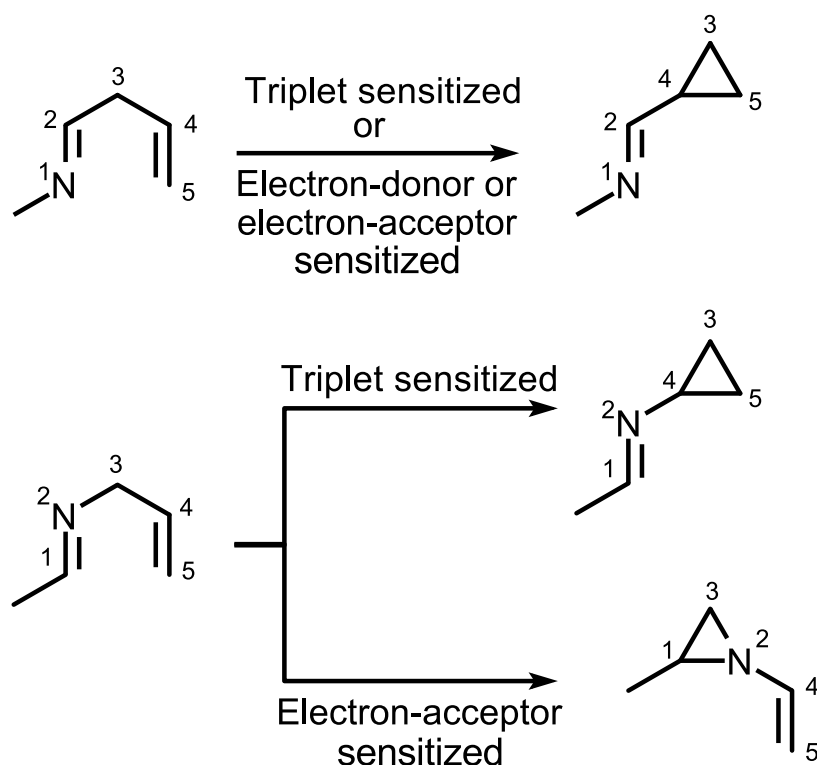


aza-di- π -methane rearrangement

Photochemical reaction of a 1-aza-1,4-diene or a 2-aza-1,4-diene in the triplet excited state to form the corresponding cyclopropylimine.

Note:

The rearrangement formally amounts to a 1,2-shift of the imino group and 'bond formation' between the C(3) and C(5) carbon atoms of the azadiene skeleton. 1-Aza-1,4-dienes also undergo the rearrangement to cyclopropylimines using electron-acceptor and electron-donor sensitizers via radical-cation and radical-anion intermediates, respectively. 2-Aza-1,4-dienes rearrange to *N*-vinylaziridines on irradiation using electron-acceptor sensitizers. In this instance the reaction amounts to a 1,2-shift of the alkene unit and "bond formation" between the C(1) and C(3) carbon atoms of the azadiene skeleton.



See also: di- π -methane rearrangement, di- π -silane rearrangement, oxa-di- π -methane rearrangement

Source:

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 305