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 Université de Pau et des Pays de l'Adour, France; and  
 The University of Queensland, Brisbane, Australia

Bond-shift isomers: the co-existence of allenic and propargylic phenylnitrile imines

Photolysis of matrix-isolated 5-phenyltetrazole generates two forms of phenylnitrile imine: propargylic and allenic. They are not resonance structures but correspond to different energy minima, representing bond-shift isomers. Upon further photolysis both of them convert into 1H diazirine. This is the first observation of bond-shift isomers for a 1,3-dipolar species (phenylnitrile imine) and one of the few observations of antiaromatic 1H diazirines.

As featured in:



See Igor Reva, Curt Wentrup et al.,  
*Chem. Commun.*, 2015, **51**, 14712.



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