

Base-promoted double amination of 1-haloalkynes: direct synthesis of ene-1,1-diamines.

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Streszczenie

Selective and efficient synthetic procedure for highly reactive ene-1,1-diamines was developed by systematic investigation of double amination of 1-haloalkynes. High yields, without the need for transition metal and simple isolation make the reported procedure superior compared to synthetic approaches reported so far. The reaction demonstrates high functional group tolerance, but its efficiency depends on the electronic properties of 1-haloalkyne and the steric hindrance of an amine. The selected diamine and its corresponding protonated form – amidinium salt – have been examined for the first time by means of single-crystal X-ray diffraction. Finally, a new mechanism explaining selective formation of ene-1,1-diamines was proposed.

Słowa kluczowe

Ene-1,1-diamines, 1-Haloalkynes, Amination, Alkynes

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