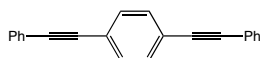


# Alkynes

Alkynes are highly reactive and the triple bond can exert remarkable effects on the rest of the molecule through a combination of characteristic properties. A number of new alkynes derivatives are now available through Alfa Aesar. Many have already been extensively cited in the scientific literature; here are just a few examples of their use.

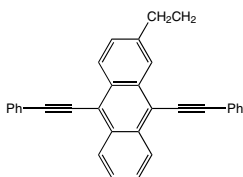
6-Heptynoic acid (H53519) has been used in many studies including in fatty acid amide hydrolase inhibitors<sup>1</sup>, alkynyl-substituted spirocyclic sulfamides for the treatment of alzheimer's disease<sup>2</sup>, catalytic cyclizations to form  $\epsilon$ -lactones<sup>3</sup>, and the selective fluorescence labelling of lipids in living cells.<sup>4</sup> Hua and coworkers have optimised palladium-catalyzed transfer semihydrogenation of internal alkynes (H30395) affording cis-alkenes in good to high yields with excellent chemo- and stereoselectivity.<sup>5</sup> Yusubov et al. were able to selectively oxidize one triple bonds in the same compound to afford a 1,2-diketones.<sup>6</sup>

The alkyne (H51897) was employed in a multi-step supramolecular chemistry reaction, which terminated with cobalt-catalyzed cyclotrimerization reaction, to yield an extended hexagonal molecule, as a highly symmetrical ligand.<sup>7</sup> The group led by Bureš has studied H51914 and other similar moieties as push-pull molecules with a systematically extended  $\pi$ -conjugated system featuring 4,5-dicyanoimidazole.<sup>8</sup> Alfa Aesar has extended its comprehensive range of heterocyclic compounds with the following alkynes.



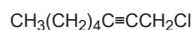
## H30395

1,4-Bis(phenylethynyl)benzene, 97%  
[1849-27-0]



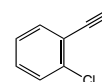
## H53470

9,10-Bis(phenylethynyl)-2-ethylanthracene, 98%  
[53158-83-1]



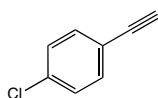
## H53452

1-Chloro-2-optyne, 98%  
[51575-83-8]



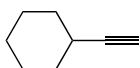
## H53441

2-Chlorophenylacetylene, 98%  
[873-31-4]



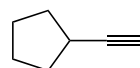
## H51058

4-Chlorophenylacetylene, 98%  
[873-73-4]



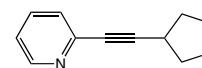
## H53418

Cyclohexylacetylene, 98%  
[931-48-6]



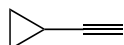
## H53483

Cyclopentylacetylene, 97%  
[930-51-8]



## H53463

2-(Cyclopentylethynyl)pyridine, 95%  
[865173-44-0]



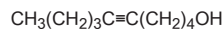
## H53440

Cyclopropylacetylene, 97%  
[6746-94-7]



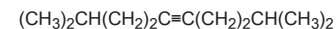
## H53467

4,6-Decadiyne, 97%  
[16387-71-6]



## H53400

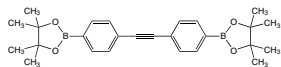
5-Decyn-1-ol, 97%  
[68274-97-5]



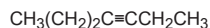
## H53414

2,9-Dimethyl-5-decyne, 96%  
[19550-56-2]

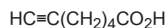
# Alkynes



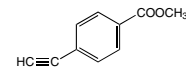
**H51897**  
Diphenylacetylene-4,4'-  
diboronic acid bis(pinacol)  
ester, 95%  
[849681-64-7]



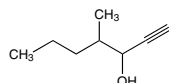
**H53504**  
3-Heptyne, 97%  
[2586-89-2]



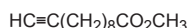
**H53519**  
6-Heptynoic acid, 95%  
[30964-00-2]



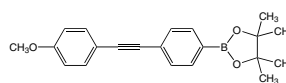
**H53419**  
Methyl 4-ethynylbenzoate,  
97%  
[3034-86-4]



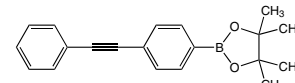
**H53372**  
4-Methyl-1-heptyn-3-ol, 97%  
[87777-46-6]



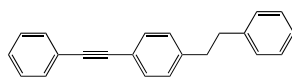
**H53453**  
Methyl 10-undecynoate, 96%  
[2777-66-4]



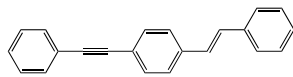
**H51914**  
4-(4-Methoxyphenylethynyl)  
benzeneboronic acid pinacol  
ester, 95%



**H51699**  
4-(Phenylethynyl)benzene-  
boronic acid pinacol ester, 97%



**H30058**  
1-(2-Phenylethyl)-4-  
(phenylethynyl)benzene, 97%  
[906650-60-0]



**H30638**  
1-(trans-2-Phenylethenyl)-4-  
(phenylethynyl)benzene, 97%  
[21850-30-6]

<sup>1</sup> D. L. Boger, *et al.*, *J. Med. Chem.*, 2005, **48**, 1849.

<sup>2</sup> Merck Sharp & Dohme Ltd, Patent: WO2003/93253 A1, 2003.

<sup>3</sup> H. Imagawa, *et al.*, *Synlett*, 2006, 639.

<sup>4</sup> A. B. Neef, & C. Schultz, *Angewandte Chemie, Int. Ed.*, 2009, **48**, 1498.

<sup>5</sup> J. Li, R. Hua & T. Liu, *J. Org. Chem.*, 2010, **75**, 2966.

<sup>6</sup> S. Y. Mehman, V. D. Filimonov, V. P. Vasilyeva, K.-W. Chi, *Synthesis*, 1995, **10**, 1234.

<sup>7</sup> M. Takase, A. Nakajima, T. Takeuchi, *Tetrahedron Letters*, 2005, **46**, 1739.

<sup>8</sup> J. Kulhanek, F. Bureš, O. Pytela, T. Mikysek, J. Ludvik, A. Ruzicka, *Dyes & Pigments*, 2010, **85**, 57.