

Short Notes on Synthesis using Alkynes

Sandhya Kille

Department of Microbiology, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India

DESCRIPTION

Dehydrohalogenation is used to make alkynes from dihaloalkanes. The majority of these reactions take place at high temperatures with alkoxide bases (other strong bases may also be used). As a consequence of this combination, the E2 mechanism produces the majority of the product.

Alkynes are a very important class of compounds that are used as building blocks for a wide range of carbocycles and heterocycles. There are two types of alkynes: terminal alkynes and internal alkynes. Internal alkynes were synthesised using terminal alkynes as one of the precursors. Alkynes were also obtained through a variety of reduction reactions. Alkynes have a wide range of uses, but there is yet to be a comprehensive study of their synthesis. As a result, in this study, we have summarised the literature on the synthesis of various functionalized alkynes from non-alkyne sources. The synthesis of internal alkynes from terminal alkynes has not been explored. The synthesis of alkynes can be divided into three major types of reactions based on the available literature: (a) synthesis of alkynes via-elimination, (b) synthesis of alkynes via carbene rearrangement, and (c) synthesis of alkynes via miscellaneous approaches. We concentrated on the various methods available for these transformations in this analysis, including their variety,

limitations, and recent developments. We've also spoken about the process at work during the reaction.

To make a vicinal dihalide from an alkene, chlorine or bromine is combined with an inert halogenated solvent like chloromethane. The formed vicinal dihalide is then heated and reacted with a strong base to create an alkyne.

The reaction of an alkyl halide with an acetylide ion, which is formed from a shorter alkyne, produces larger alkynes. Elimination reactions may occur because acetylide ions are bases, resulting in the formation of an alkene from the alkyl halide.

Naming Alkyne:

Alkynes are classified in the same way as alkenes are named, in general. • In the IUPAC scheme, change the suffix -yne to the

-ane ending of the parent alkane term.

Choose the longest continuous chain that includes both atoms of the triple bond and assign the lowest number to the triple bond.

Diyne are compounds with two triple bonds, triynes are compounds with three triple bonds, and so on.

Enynes are compounds that have both a double and triple bond.

The first site of unsaturation (either C=C or CC) is given the lower number in the sequence.

Correspondence to: Sandhya Kille, Department of Microbiology, Acharya Nagarjuna University, India, E-mail: sandhyaranikille96@gmail.com

Received: 28-Nov-2022, Manuscript No. OCCR-22-9719; **Editor assigned:** 30-Nov-2022, PreQC No. OCCR-22-9719 (PQ); **Reviewed:** 14-Dec-2022, QC No. OCCR-22-9719; **Revised:** 21-Dec-2022, Manuscript No. OCCR-22-9719 (R); **Published:** 28-Dec-2022, DOI: 10.35248/2161-0401.22.11.308

Citation: Sandhya K (2022) Short Notes on Synthesis using Alkynes. Organic Chem Curr Res. 11: 308.

Copyright: © 2022 Sandhya K. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.