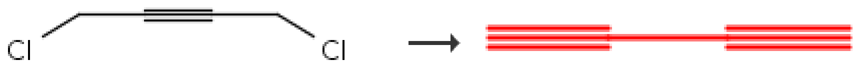
1. Single Step



90%

Overview

Steps/Stages

1.1 R:KOH, S:H_2O, S:DMSO

Notes

Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

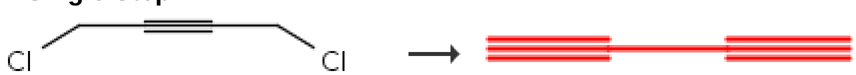
References

A detailed procedure for the preparation of butadiyne

By Verkruijsse, H. D. and Brandsma, L.

From Synthetic Communications, 21(5), 657-9; 1991

2. Single Step



80%

Overview

Steps/Stages

1.1 R:KOH, S:DMSO, 30 min, 70°C
1.2 30 min, 70°C
1.3 S:THF, -78°C

Notes

Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 3, Most stages in any one step: 3

References

Synthesis of Neutral Molecular Squares Composed of Bis(phosphine)platinum Corner Units and Dialkynyl Linkers. Solid-State Characterization of [Pt(μ-C≡CC≡C)(dppp)]4

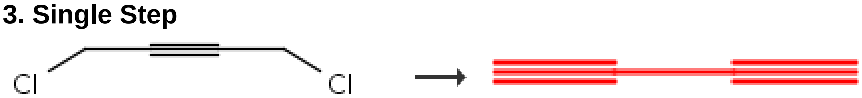
By Janka, Mesfin et al

From Organometallics, 23(19), 4382-4390; 2004

Experimental Procedure

Preparation of Butadiyne.[44] KOH (9.0 g, 0.08 mol), water (20.0 mL), and DMSO (5.0 mL) were heated to 70 °C for 30 min in a three-necked flask equipped with a condenser and a dropping funnel. The top of the condenser was connected, via a tube filled with $CaCl_2$, to a trap containing dry THF, which was cooled to -78 °C. 1,4-Dichloro-2-butyne (4.0 mL, 0.04 mol) was added dropwise over a period of 30 min, while the temperature was maintained at 70 °C. A stream of argon was passed through the apparatus, which forced the butadiyne into the cold THF trap. The THF solution was stored at -45 °C in a sealed container. The weight increase of the trap corresponded to an 80% yield. The material could be stored for at least 3 days without significant deterioration. **Butadiyne,** yeild 80%.

3. Single Step



100%

Overview

Steps/Stages

1.1 S:EtOH, S:C_5H_5N

Notes

Classification: Elimination; Dehydrochlorination; Isomerisation; # Conditions: NaOH; pyridine EtOH, Reactants: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

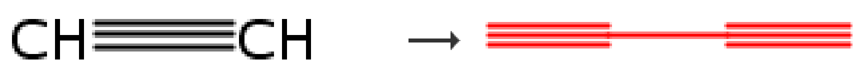
References

The chemistry of the acetylenes. I. Syntheses starting with diacetylene

By Herbertz, Theo

From Chemische Berichte, 85, 475-82; 1952

4. Single Step



70%

Overview

Steps/Stages

1.1 R:O_2, C:Au, S:m-Dichlorobenzene, rt, 5 bar; 18 h, 170°C

Notes

solid-supported catalyst, catalyst on carbon, Reactants: 1, Reagents: 1, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

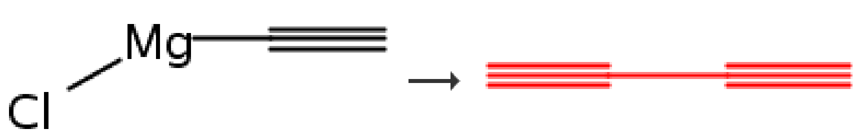
References

Partially oxidized gold nanoparticles: A catalytic base-free system for the aerobic homocoupling of alkynes

By Boronat, Mercedes et al

From Journal of Catalysis, 315, 6-14; 2014

5. Single Step



67%

Overview

Steps/Stages

Notes

1.1 R:$ClCH_2CH_2Cl$, C:$MnCl_2$, S:THF, 25°C; 12 h, 25°C

1.2 R:MeOH, 25°C

dropwise addition of Grignard reagent, Reactants: 1, Reagents: 2, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 2, Most stages in any one step: 2

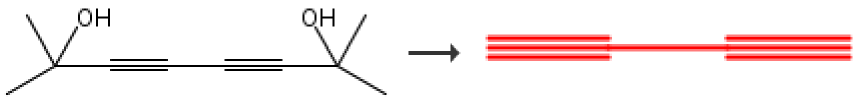
References

Manganese-catalyzed oxidative homo-coupling of aryl Grignard chlorides

By Zhou, Zhiming and Xue, Weizhe

From Journal of Organometallic Chemistry, 694(5), 599-603; 2009

6. Single Step



80%

Overview

Steps/Stages

1.1 S:Xylene

Notes

Classification: Hydrolysis; C-Dealkylation; # Conditions: NaOH xylene, Reactants: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

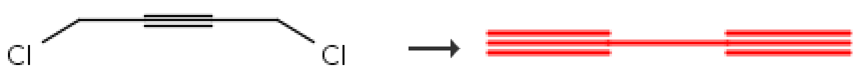
References

Improved laboratory method for preparation of diacetylene

By Tedeschi, R. J. and Brown, A. E.

From Journal of Organic Chemistry, 29(7), 2051-3; 1964

7. Single Step



80%

Overview

Steps/Stages

Notes

1.1 S:MeOH

Classification: Elimination; Dehydrochlorination; Isomerisation; #
Conditions: NaOH; MeOH; boil 10mn,
Reactants: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

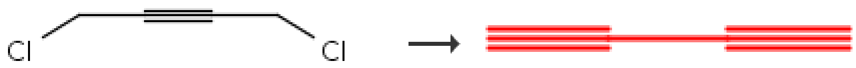
References

Reduction of sulfur-containing heterocyclic compounds with lithium aluminum hydride

By Angelini, Carlo et al

From Annali di Chimica (Rome, Italy), 46, 235-42; 1956

8. Single Step



Overview

Steps/Stages

1.1 R:KOH, S:H_2O, S:DMSO, rt → 75°C

Notes

Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

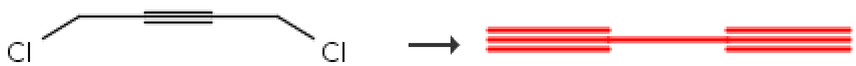
References

Methods of preparing dicarbonyl compounds from biomass waste

By Klein, Josef Peter

From PCT Int. Appl., 2015060862, 30 Apr 2015

9. Single Step



Overview

Steps/Stages

1.1 R:KOH, S:H_2O, S:Dioxane, 80-100°C

Notes

Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

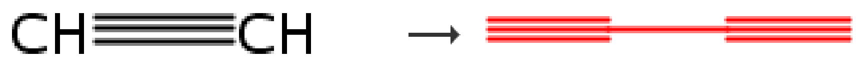
References

Photodissociation Dynamics of Diacetylene Rydberg States

By Wang, Hongzhen et al

From Journal of Physical Chemistry A, 119(46), 11313-11319; 2015

10. Single Step



Overview

Steps/Stages

1.1

Notes

no experimental detail, gas phase, Ne-He carrier gas used, Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

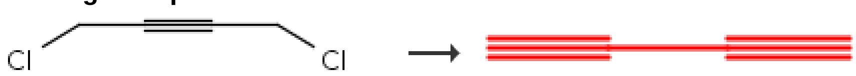
References

Spectroscopy and Dynamics of Jet-Cooled Polyynes in a Slit Supersonic Discharge: Sub-Doppler Infrared Studies of Diacetylene HCCCCH

By Chang, Chih-Hsuan and Nesbitt, David J.

From Journal of Physical Chemistry A, 119(28), 7940-7950; 2015

11. Single Step



Overview

Steps/Stages

1.1 R:KOH, S:H_2O, S:DMSO, 50°C

Notes

literature preparation, Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

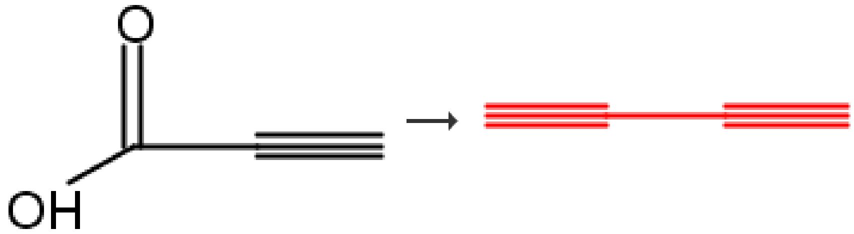
References

Kinetics of the Reactions of Hydroxyl Radicals with Diacetylene and Vinylacetylene

By Sommerer, Joerg and Olzmann, Matthias

From Zeitschrift fuer Physikalische Chemie (Muenchen, Germany), 229(4), 495-505; 2015

12. Single Step



Overview

Steps/Stages

1.1 R:$CoCl_2$, S:MeOH, rt

Notes

Glaser coupling, Reactants: 1, Reagents: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

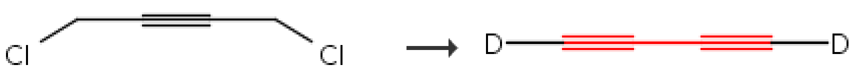
References

Cobalt-Mediated Decarboxylative Homocoupling of Alkynyl Carboxylic Acids

By Leeming, Michael G. et al

From Australian Journal of Chemistry, 67(5), 701-710; 2014

13. Single Step



Overview

Steps/Stages

1.1 R:KOD, S:$O=S(CD_3)_2$, S:D_2O, 15 min, 75°C

Notes

Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Accessing Long-Lived Disconnected Spin-1/2 Eigenstates through Spins > 1/2

By Claytor, Kevin et al

From Journal of the American Chemical Society, 136(43), 15118-15121; 2014

Experimental Procedure

Diacetylene-d2 1,4-dichloro-2-butyne(10g, 82 mmol) was added drop wise over 15 minutes to a stirred, heated (75°C, oil bath temperature) mixture of DMSO-d_6 (8 mL) and 40% KOD in D_2O (30 mL). The head space was swept with a gentle stream of argon. The argon/product gas mixture was passed through an empty (to allow visual confirmation of product formation) dry ice/acetone cooled trap (10 mL Schlenk flask). Colorless crystals of the product formed within 2-3 minutes in the receiving flask. Following complete addition of 1,4-dichloro-2-butyne to the reaction mixture, argon was swept through the system for an additional 20 minutes. After which time the neck and side arm port of the Schlenk flask were septum sealed under argon and freshly distilled (P_2O_5) $CDCl_3$ (1 mL) was added. The flask was transferred to an ice water bath. Within a few minutes in the bath, and with some swirling, a clear, colorless solution was obtained. An aliquot (~700 uL) was removed and transferred to a septum sealed NMR tube under argon. The remainder of the reaction mixture stored at -80°C under an atmosphere of argon.

14. Single Step

Overview

Steps/Stages

1.1 S:H_2O, 4 min, 70°C; 70°C → rt

1.3

Notes

photochemical, ultrasound (substage 1), ultraviolet irradiation, 254nm (substage 3), irradiation time is several seconds (substage 3), mixed with silicon polymer in stage 2, Reactants: 1, Solvents: 1, Steps: 1, Stages: 3, Most stages in any one step: 3

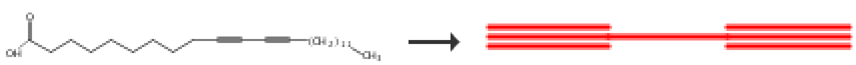
References

Biosensor compositions including a polydiacetylene material and their use in detecting microbes or microbial products

By Awdeh, Richard

From PCT Int. Appl., 2014052794, 03 Apr 2014

15. Single Step



Overview

Steps/Stages

1.1 R:H_2O, S:THF, heated

Notes

Reactants: 1, Reagents: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Fabrication of organic thin-film transistors provided with polyacetylene semiconductor layers

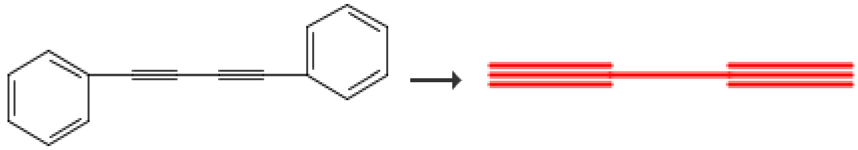
By Matsumoto, Shinji et al

From Jpn. Kokai Tokkyo Koho, 2009224620, 01 Oct 2009

Experimental Procedure

Tetrahydrofuran solution of 10,12 pentacosadiynoic acid (manufactured by Tokyo Kasei Kogyo Co., Ltd.) (0.1 weight%) was developed in the silicon substrate with a thermally oxidized film (200nm), stored in a container filled with tetrahydrofuran steam. Then, subjected to heat treatment on a hot plate. A diacetylene monomer film was obtained.

16. Single Step



Overview

Steps/Stages

1.1 R:Me(CH$_2$)$_{11}$OSO$_3$$^-$ •Na$^+$, R:Me(CH$_2$)$_3$CH$_2$OH, R:NaCl, C:3524-62-7, S:Cyclohexane, S:H$_2$O, 12 h

Notes

photochemical, UV irradiation (365 nm) used, Reactants: 1, Reagents: 3, Catalysts: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Highly Swollen Liquid Crystals as New Reactors for the Synthesis of Nanomaterials

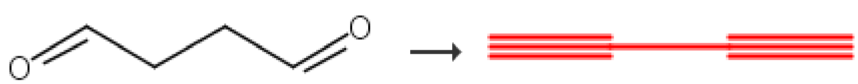
By Surendran, Geetarani et al

From Chemistry of Materials, 17(6), 1505-1514; 2005

Experimental Procedure

Synthesis of Polymers. The polymer samples were prepared as follows. For sample **4.A**, the solution was prepared by mixing 2 mL of an aqueous solution containing 0.0351 g of NaCl and 0.8 g of SDS with 5 mL of cyclohexane containing 0.19 g of 1,4-diphenylbutadiyne (Sigma Aldrich). The SLC was structured by the addition of 0.8 g of 1-pentanol under strong stirring. It was γ irradiated for 20 h, under nitrogen atmosphere (total amount of 90 kGy). The mesophase was further destabilized by the addition of 5 mL of ethanol and 5 mL of water. A phase separation occurs with the organic portion on the top containing the polymer. The polymer was recovered as a solid floating on water after full evaporation of the organic phase. Samples **4.B** and **4.C** were prepared according to the same process; sample **4.B** was prepared in pure cyclohexane, and sample **4.C** was prepared in the cyclohexane phase of the SLC. For sample **4.C**, the SLC was prepared as for sample **4.A**, but the organic phase was made of 3.8 g of cyclohexane, 0.38 g of 1,4-diphenylbutadiyne (Sigma Aldrich), and 0.193 g of benzone methyl ether (Fluka) used as a polymerization catalyst. The so-obtained SLC was left under UV irradiation (100 W, 365 nm) for 12 h. The polymer fibers were recovered according to the same process.

17. Single Step



Overview

Steps/Stages

1.1 C:Al$_2$O$_3$, 375°C; 375°C → 100°C; 100°C → 0°C; 0°C → -50°C

Notes

thermal, Reactants: 1, Catalysts: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Catalytic dehydration of acetaldehyde to produce ethyne

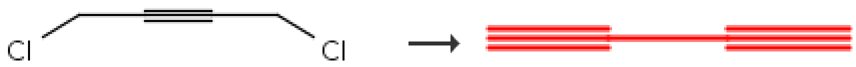
By Everett, Christian

From U.S. Pat. Appl. Publ., 20040102647, 27 May 2004

Experimental Procedure

Succindialdehyde in the gas phase is passed through a reaction zone containing aluminum oxide at a temperature of 350 C. to produce diacetylene and water. The gas stream is cooled to 100 C. by passing through a cooling zone. The gas stream is then chilled to 10 C. causing the co-product water and unreacted or partially reacted succindialdehyde to liquify, whereby diacetylene is obtained as a gas. diacetylene

18. Single Step



Overview

Steps/Stages

1.1 R:KOH, S:H_2O, S:THF

Notes

product typically generated immediately before use, Reactants: 1, Reagents: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

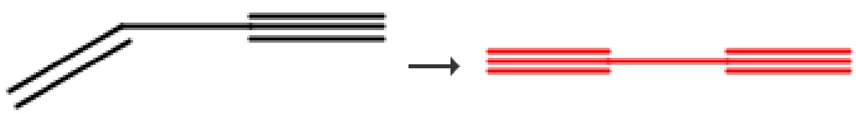
References

Polyphospha[m]cyclo[n]carbons (m+n = 15, 20, 25, 30, 40)

By Markl, Gottfried et al

From Chemistry - A European Journal, 6(20), 3806-3820; 2000

19. Single Step



Overview

Steps/Stages

1.1

Notes

Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

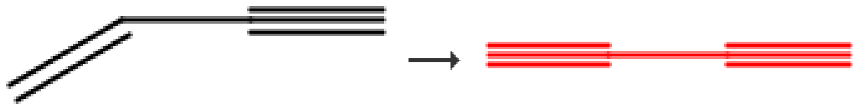
References

Molecular dissociation of vinylacetylene and its implications for acetylene pyrolysis

By Kiefer, John H. and Mitchell, Kevin I.

From Energy & Fuels, 2(4), 458-61; 1988

20. Single Step



Overview

Steps/Stages

1.1

Notes

Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

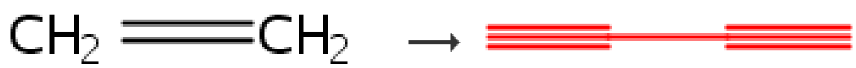
References

Molecular dissociation of vinylacetylene and its implications for acetylene pyrolysis

By Kiefer, John H. and Mitchell, Kevin I.

From Energy & Fuels, 2(4), 458-61; 1988

21. Single Step



Overview

Steps/Stages

1.1

Notes

Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Pyrolysis of methyl chloride, a pathway in the chlorine-catalyzed polymerization of methane

By Weissman, Maia and Benson, Sydney W.

From International Journal of Chemical Kinetics, 16(4), 307-33; 1984

22. Single Step

60%

Overview

Steps/Stages

Notes

1.1 S:H_2O, S:Dioxane

Classification: Elimination; Dehydrochlorination; Isomerisation; # Conditions: KOH; H2O 1,4-dioxan; Rf, Reactants: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

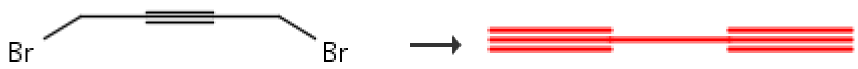
References

Acetylenic compounds. XXVIII. A new route to diacetylene and its symmetrical derivatives

By Armitage, J. B. et al

From Journal of the Chemical Society, , 44-7; 1951

23. Single Step



Overview

Steps/Stages

1.1 R:$NaNH_2$

Notes

Classification: Elimination; Dehydrohalogenation; # Conditions: NaNH2; # Comments: generalized reaction, halogen can vary; other metal amides can be used, Reactants: 1, Reagents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

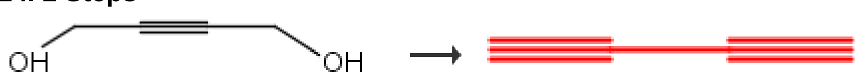
References

The chemistry of the alkali amides. III

By Levine, Robert and Fernelius, W. Conard

From Chemical Reviews (Washington, DC, United States), 54, 449-573; 1954

24. 2 Steps



Overview

Steps/Stages

1.1 R:$SOCl_2$, R:C_5H_5N, cooled; 1 h, cooled; 20 h, cooled

2.1 R:KOH, S:H_2O, S:DMSO, rt → 75°C

Notes

Reactants: 1, Reagents: 3, Solvents: 2, Steps: 2, Stages: 2, Most stages in any one step: 1

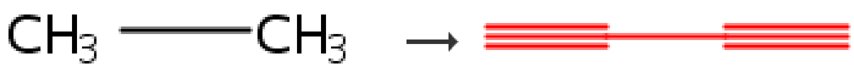
References

Methods of preparing dicarbonyl compounds from biomass waste

By Klein, Josef Peter

From PCT Int. Appl., 2015060862, 30 Apr 2015

25. 2 Steps



Overview

Steps/Stages

1.1

2.1

Notes

Reactants: 1, Steps: 2, Stages: 2, Most stages in any one step: 1

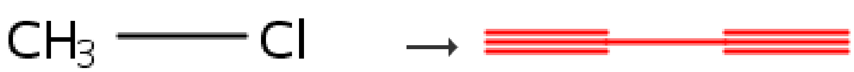
References

Pyrolysis of methyl chloride, a pathway in the chlorine-catalyzed polymerization of methane

By Weissman, Maia and Benson, Sydney W.

From International Journal of Chemical Kinetics, 16(4), 307-33; 1984

26. 2 Steps



Overview

Steps/Stages

1.1

2.1

Notes

Reactants: 1, Steps: 2, Stages: 2, Most stages in any one step: 1

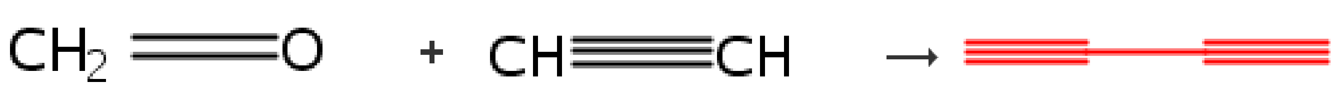
References

Pyrolysis of methyl chloride, a pathway in the chlorine-catalyzed polymerization of methane

By Weissman, Maia and Benson, Sydney W.

From International Journal of Chemical Kinetics, 16(4), 307-33; 1984

27. 3 Steps



Overview

Steps/Stages		Notes
1.1	R:$NaHCO_3$, C:1319-53-5, C:16753-36-9, S:H_2O, 2 h, 90°C, 5 psi, pH 6	Reactants: 2, Reagents: 4, Catalysts: 2, Solvents: 2, Steps: 3, Stages: 3, Most stages in any one step: 1
2.1	R:$SOCl_2$, R:C_5H_5N, cooled; 1 h, cooled; 20 h, cooled	
3.1	R:KOH, S:H_2O, S:DMSO, rt → 75°C	

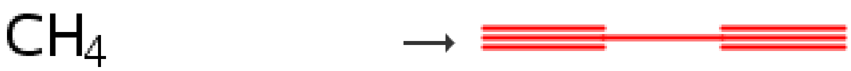
References

Methods of preparing dicarbonyl compounds from biomass waste

By Klein, Josef Peter

From PCT Int. Appl., 2015060862, 30 Apr 2015

28. 3 Steps



Overview

Steps/Stages

1.1

2.1

3.1

Notes

Reactants: 1, Steps: 3, Stages: 3, Most stages in any one step: 1

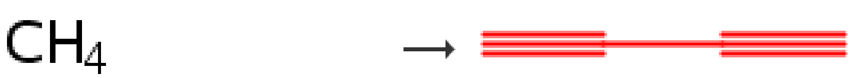
References

Pyrolysis of methyl chloride, a pathway in the chlorine-catalyzed polymerization of methane

By Weissman, Maia and Benson, Sydney W.

From International Journal of Chemical Kinetics, 16(4), 307-33; 1984

29. 3 Steps



Overview

Steps/Stages

1.1

2.1

3.1

Notes

Reactants: 1, Steps: 3, Stages: 3, Most stages in any one step: 1

References

Pyrolysis of methyl chloride, a pathway in the chlorine-catalyzed polymerization of methane

By Weissman, Maia and Benson, Sydney W.

From International Journal of Chemical Kinetics, 16(4), 307-33; 1984

30. 4 Steps

[Step 2.1]

Overview

Steps/Stages

1.1 C:TiO_2, S:H_2O, > 1 h

2.1 R:$NaHCO_3$, C:1319-53-5, C:16753-36-9, S:H_2O, 2 h, 90°C, 5 psi, pH 6

3.1 R:$SOCl_2$, R:C_5H_5N, cooled; 1 h, cooled; 20 h, cooled

4.1 R:KOH, S:H_2O, S:DMSO, rt → 75°C

Notes

1) xenon or mercury lamp used, photochemical, Reactants: 2, Reagents: 4, Catalysts: 3, Solvents: 2, Steps: 4, Stages: 4, Most stages in any one step: 1

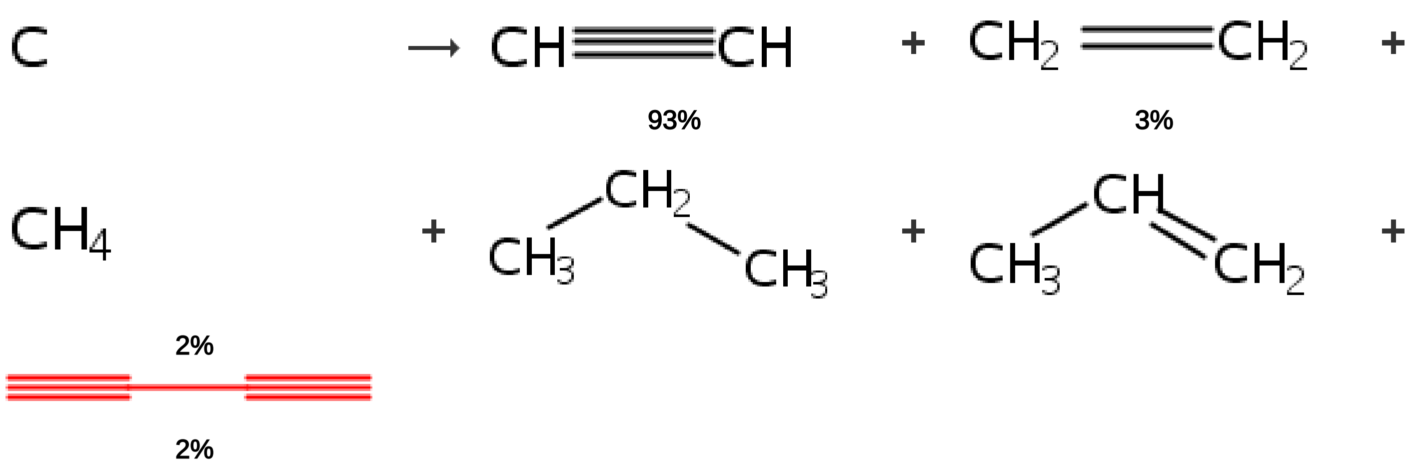
References

Methods of preparing dicarbonyl compounds from biomass waste

By Klein, Josef Peter

From PCT Int. Appl., 2015060862, 30 Apr 2015

31. Single Step



Overview

Steps/Stages

Notes

1.1 R:H_2, rt, 760 mmHg

photochemical, other products detected, ruby laser used, the product yields depend on hydrogen and argon pressure, gas phase, Reactants: 1, Reagents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Reactions of laser-generated carbon vapor with hydrogen

By Quinn, John F.

From null, , 156 pp.; 1973

32. Single Step

Overview

Steps/Stages

1.1 R:MeSSMe

Notes

thermal, other products also detected, Reactants: 1, Reagents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

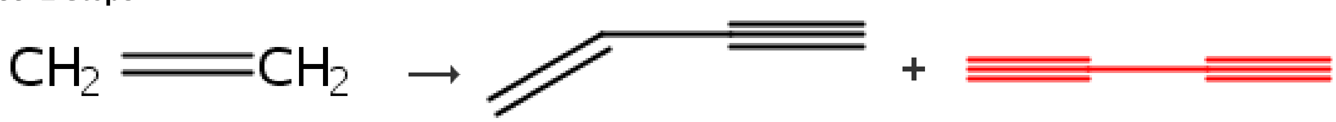
References

Radical analysis in the pyrolysis of hydrocarbons by scavenging with dimethyl disulfide

By Guthier, K. et al

From Berichte der Bunsen-Gesellschaft, 97(1), 140-2; 1993

33. 2 Steps



Overview

Steps/Stages

Notes

1.1 R:MeSSMe	1) thermal, other products also detected, 2) thermal, other products also detected, Reactants: 1, Reagents: 1, Steps: 2, Stages: 2, Most stages in any one step: 1
2.1 R:MeSSMe	

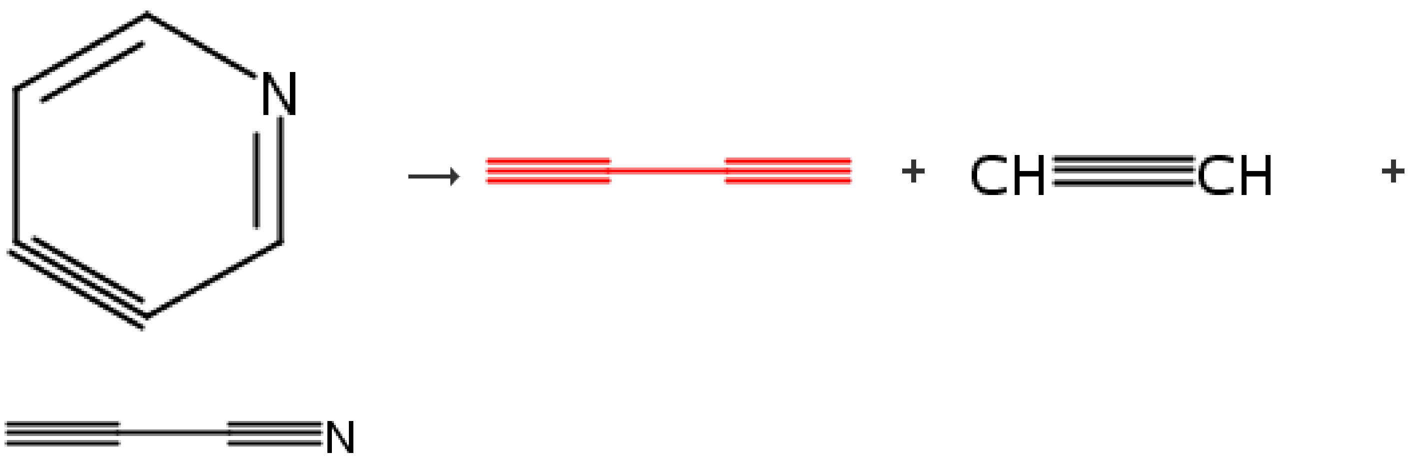
References

Radical analysis in the pyrolysis of hydrocarbons by scavenging with dimethyl disulfide

By Guthier, K. et al

From Berichte der Bunsen-Gesellschaft, 97(1), 140-2; 1993

34. Single Step



Overview

Steps/Stages

1.1 R:HCN, S:N_2

Notes

PHOTOCHEM., Reactants: 1, Reagents: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

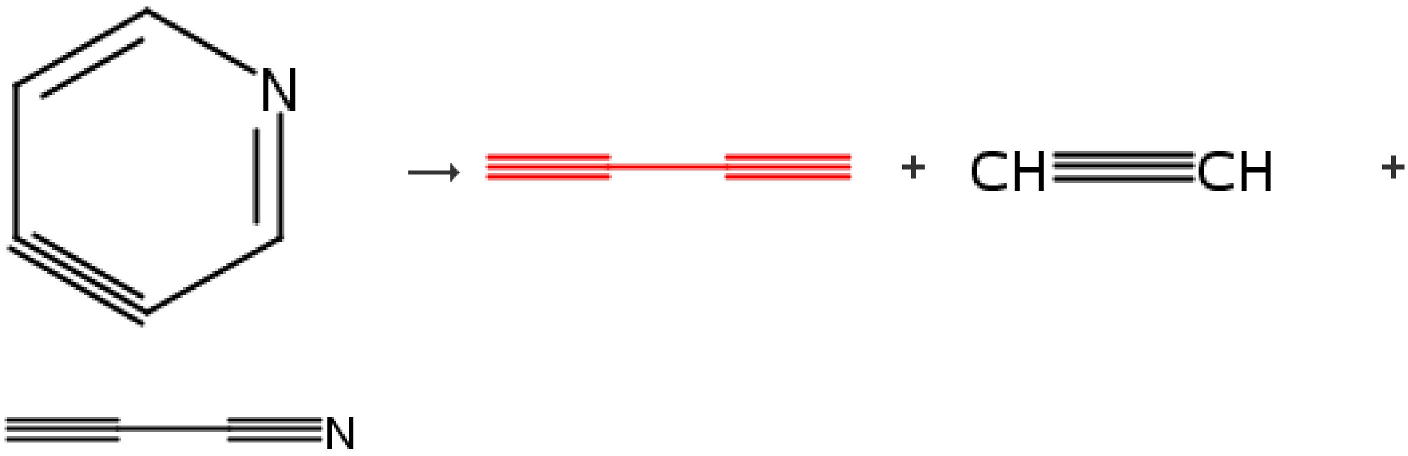
References

First direct observation of pyridyne: matrix infrared study of the photolysis products of 3,4-pyridinedicarboxylic anhydride

By Nam, H. H. and Leroi, G. E.

From Journal of the American Chemical Society, 110(12), 4096-7; 1988

35. Single Step



Overview

Steps/Stages

1.1 S:Ar

Notes

PHOTOCHEM., Reactants: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

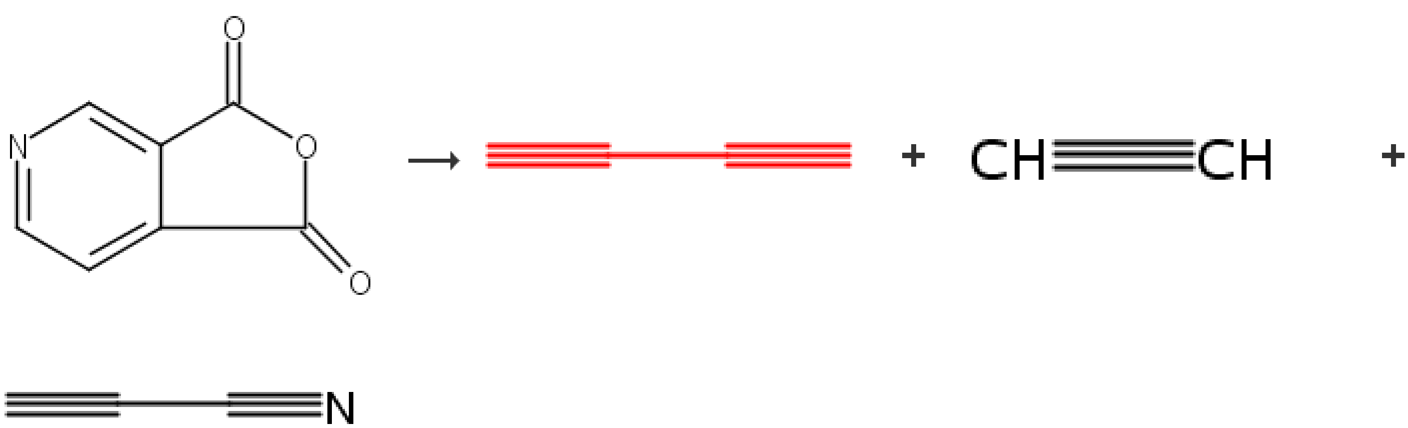
References

First direct observation of pyridyne: matrix infrared study of the photolysis products of 3,4-pyridinedicarboxylic anhydride

By Nam, H. H. and Leroi, G. E.

From Journal of the American Chemical Society, 110(12), 4096-7; 1988

36. 2 Steps



Overview

Steps/Stages

Notes

1.1 S:Ar
2.1 S:Ar

1) photolysis λ > 340 nm, 2) PHOTOCHEM., Reactants: 1, Solvents: 1, Steps: 2, Stages: 2, Most stages in any one step: 1

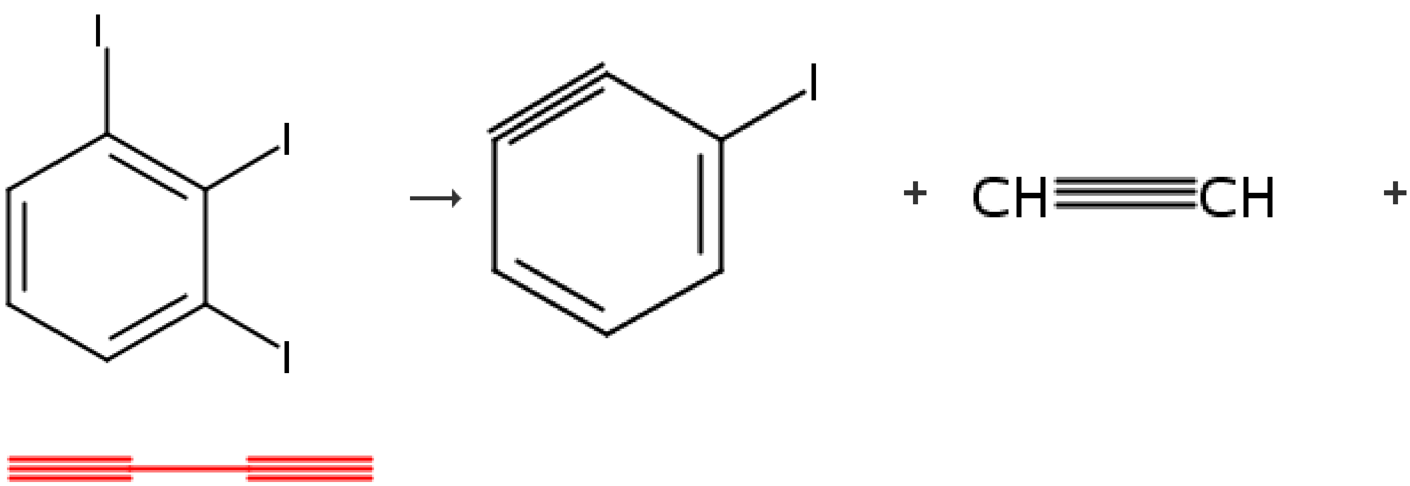
References

First direct observation of pyridyne: matrix infrared study of the photolysis products of 3,4-pyridinedicarboxylic anhydride

By Nam, H. H. and Leroi, G. E.

From Journal of the American Chemical Society, 110(12), 4096-7; 1988

37. Single Step



Overview

Steps/Stages

1.1 690°C

Notes

thermal, alternative preparation shown, Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

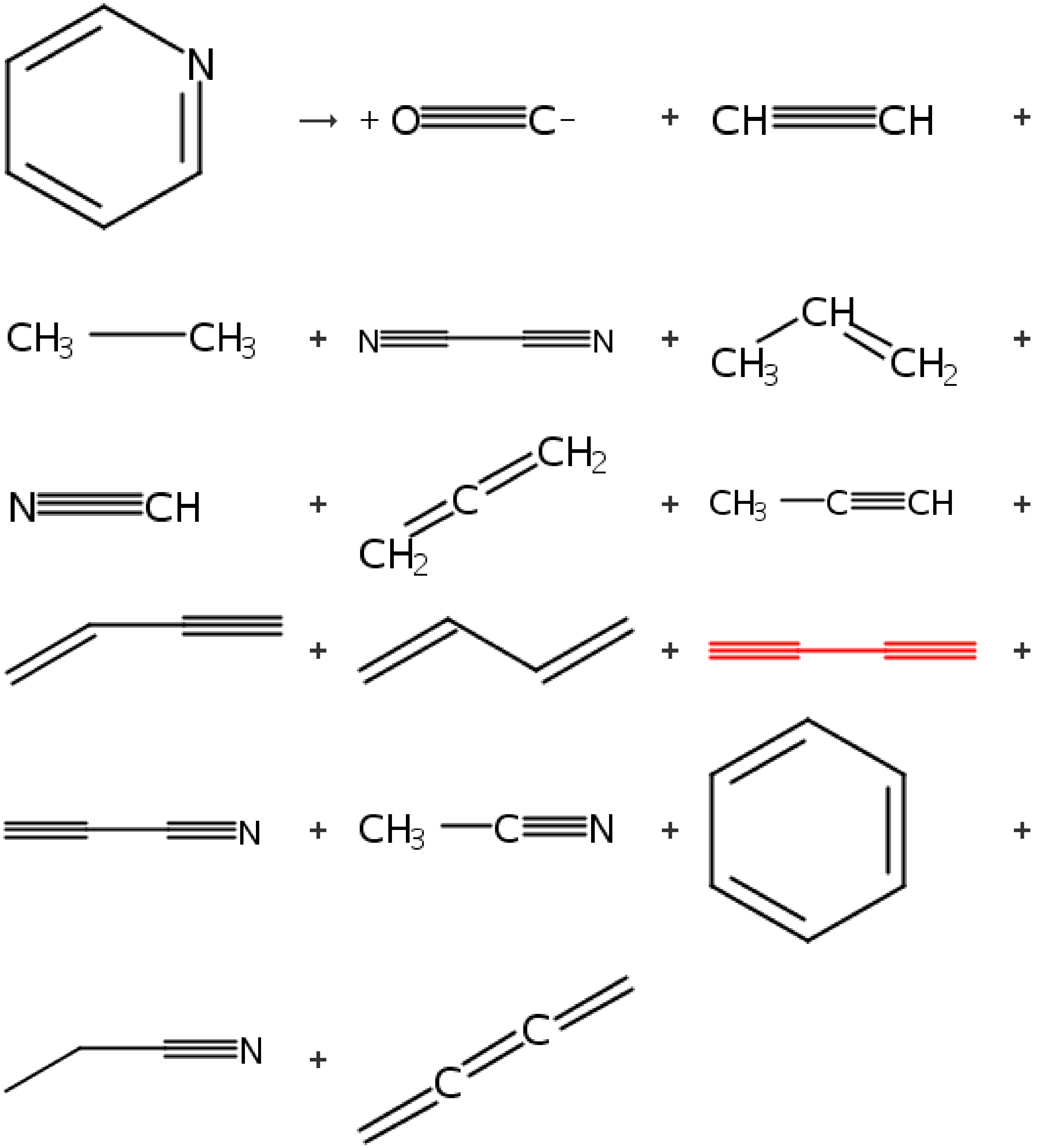
References

1,2,3-Tridehydrobenzene

By Venkataramani, Sugumar et al

From Angewandte Chemie, International Edition, 44(39), 6306-6311; 2005

38. Single Step



Overview

Steps/Stages

Notes

1.1 760 Torr

photochemical, gas phase, laser (260mJ at 193nm) irradiation, Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Laser Photochemical Etching of Silica: Nanodomains of Crystalline Chaoite and Silica in Amorphous C/Si/O/N Phase

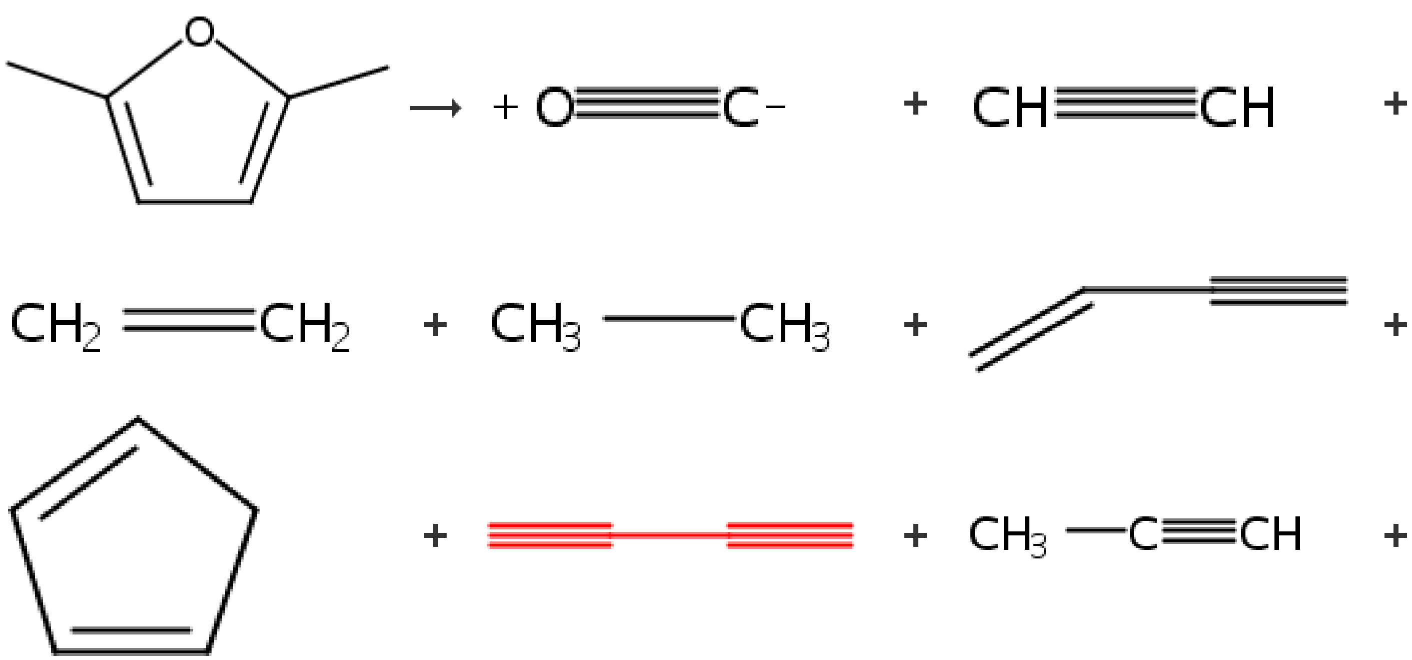
By Pola, Josef et al

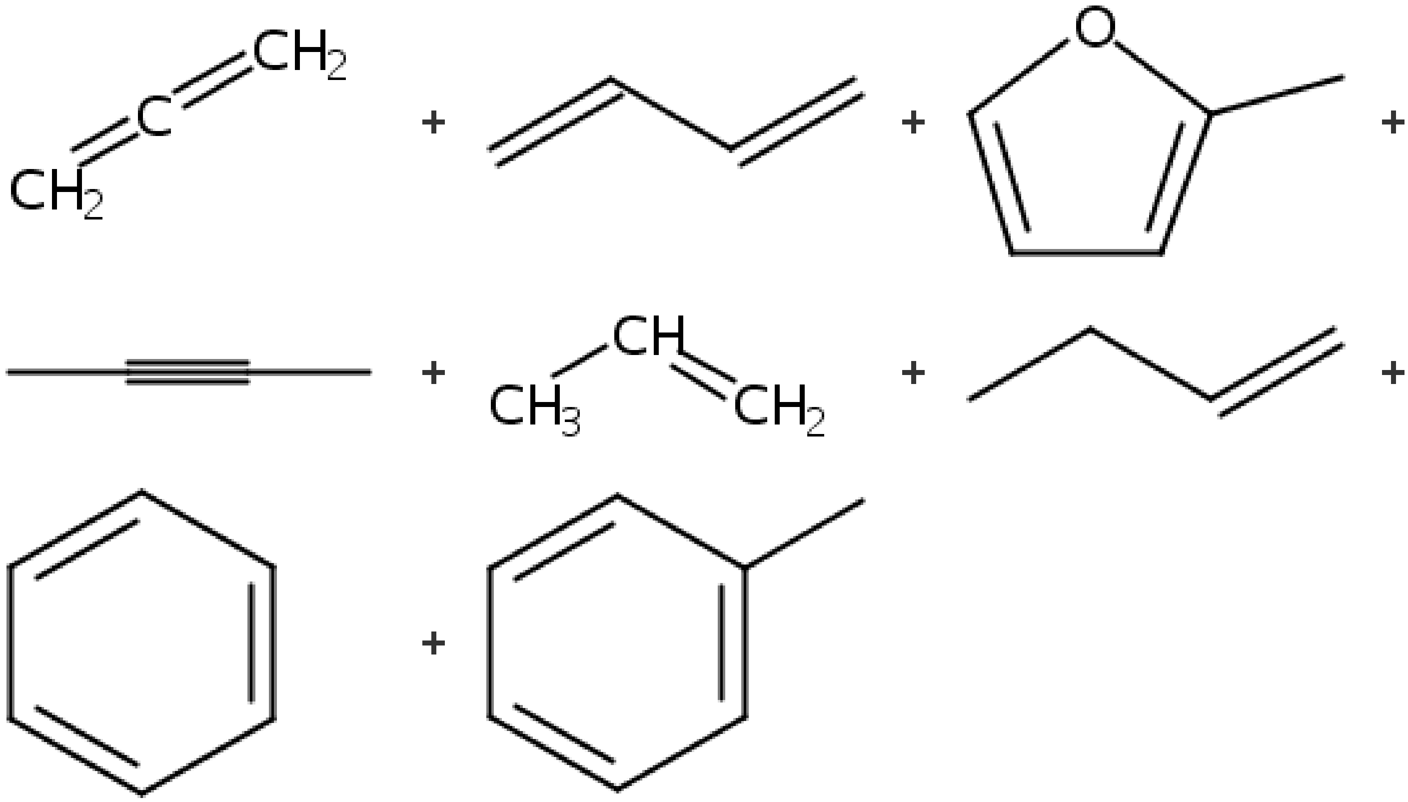
From Journal of Physical Chemistry C, 112(34), 13281-13286; 2008

Experimental Procedure

Laser irradiation experiments were conducted on gaseous pyridine (13 Torr) in helium (total pressure 760 Torr) admitted to a reactor (140 mL in volume) having two orthogonally positioned tubes: one furnished with UV-grade synthetic silica and the other with KBr windows. The reactor[26] had two side arms: one fitted with a rubber septum and the other connecting to a standard vacuum manifold. Pyridine samples were irradiated with an LPX 210i excimer (ArF) laser operating with a repetition frequency of 10 Hz. The laser pulses (fwhm 23 ns, 260 mJ at 193 nm) were focused to an incident area of 0.5 cm × 0.2 cm (fluences 2.6 J/cm^2). This fluence corresponds to MW output and represents a critical threshold, as the described process does not occur at lower values. The progress of pyridine decomposition was monitored directly in the reactor by FTIR spectrometry (a Shimadzu FTIR IR Prestige-21 spectrometer) using diagnostic absorption of pyridine at 1590 cm^{-1}. Aliquots of the irradiated reactor content were sampled by a gastight syringe (Dynatech Precision Sampling) and analyzed by gas chromatography-mass spectroscopy (a Shimadzu QP 5050 mass spectrometer (60 m capillary column Neutrabond-1, programmed temperature 30 - 200 °C)). The decomposition products were identified through their FTIR spectral diagnostic bands. Products- CO, C_2H_2, HCN, HC.ident.C-CN, HC.ident.C-C.ident.CH. (CO, 2130 and 2175 cm^{-1}; C_2H_2, 731 cm^{-1}; HCN, 713 cm^{-1}; HC.ident.C-CN, 664 cm^{-1}; HC.ident.C-C.ident.CH 627 cm^{-1}) and through mass spectra using the NIST library.

39. Single Step





Overview

Steps/Stages

1.1 393K, 8 bar

Notes

pyrolysis, Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

A Single Pulse Shock Tube Study on the Pyrolysis of 2,5-Dimethylfuran

By Schuler, Dominik F. et al

From Zeitschrift fuer Physikalische Chemie (Muenchen, Germany), 229(4), 529-548; 2015