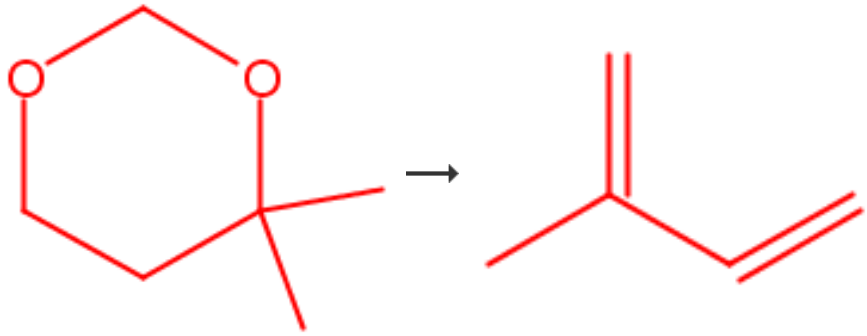
1. Single Step



99%

Overview

Steps/Stages

1.1 S:*t*-BuOH, 160°C, 9.5 atm

Notes

high pressure, thermal, Reactants: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

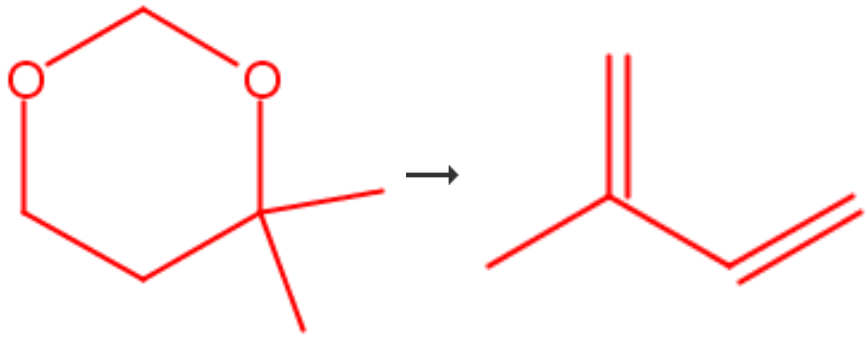
References

Process for preparation of isoprene

By Ma, Haifang et al

From Faming Zhuanli Shenqing, 104876786, 02 Sep 2015

2. Single Step



Overview

Steps/Stages

1.1

Notes

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

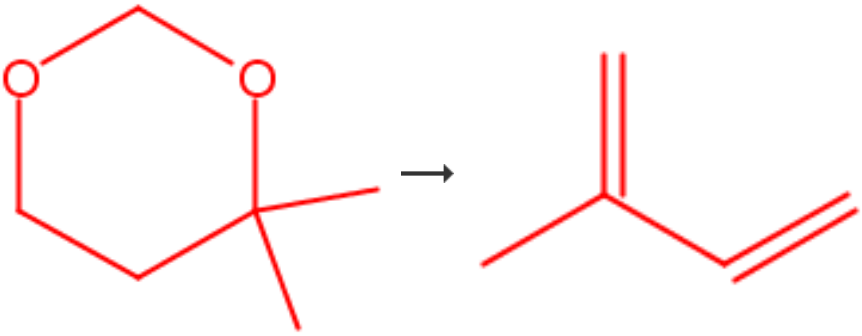
References

P2O5-SiO2 catalyst activity in the decomposition reaction of 4,4'-dimethyl-1,3-metadioxane to isoprene. III

By Avramescu, Florentina et al

From Revistade Chimie (Bucharest, Romania), 45(4), 314-16; 1994

3. Single Step



Overview

Steps/Stages

1.1

Notes

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

References

Romanian diatomite as catalyst support in the decomposition process of 4,4-dimethyl-1,3-dioxane

By Tudorache, Elena

From Materiale de Constructii (Bucharest, Romania), 22(3), 233-5; 1992

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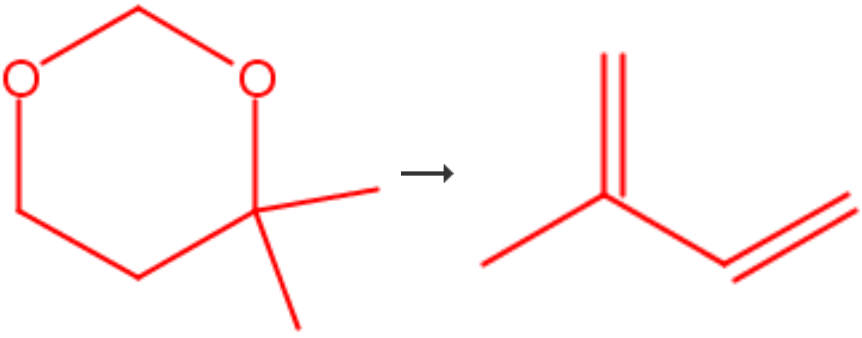
4. Single Step



Overview

Steps/Stages

Notes

1.1

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

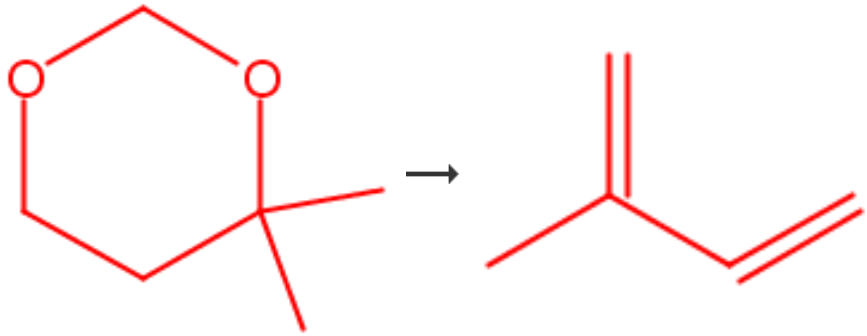
References

Improvement of technology of industrial production of isoprene from isobutylene and formaldehyde

By Shapiro, A. L. et al

From Protsessy Neftepererab. i Neftekhimii, (Ch. 1), 203-12; 1989

5. Single Step



Overview

Steps/Stages

1.1

Notes

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

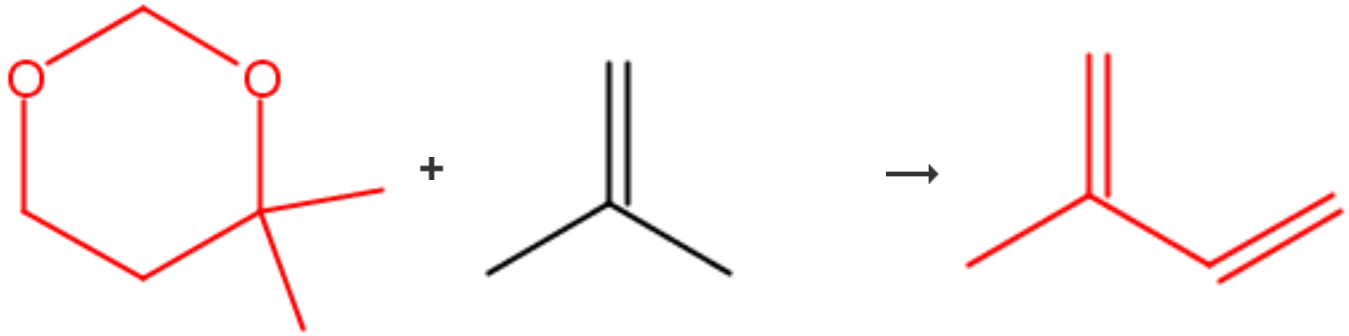
References

Effect of technological parameters of cleavage of 4,4-dimethyl-2,3-dioxane on the formation of carbonyl compounds

By Kuznetsova, E. V. et al

From Prom-st Sintet. Kauchuka, Shin i Rezin. Tekhn. Izdelii, Moskva, (6), 3-5; 1986

6. Single Step



Overview

Steps/Stages

1.1

Notes

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

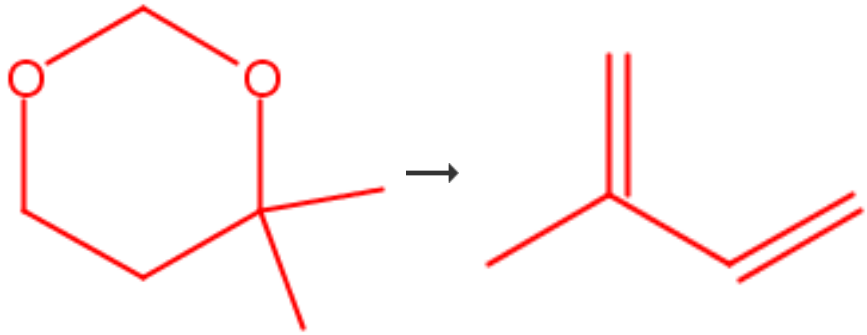
References

Isoprene

By Sasamoto, Masaaki et al

From Jpn. Kokai Tokkyo Koho, 60224642, 09 Nov 1985

7. Single Step



Overview

Steps/Stages

1.1 C:AcOEt

Notes

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

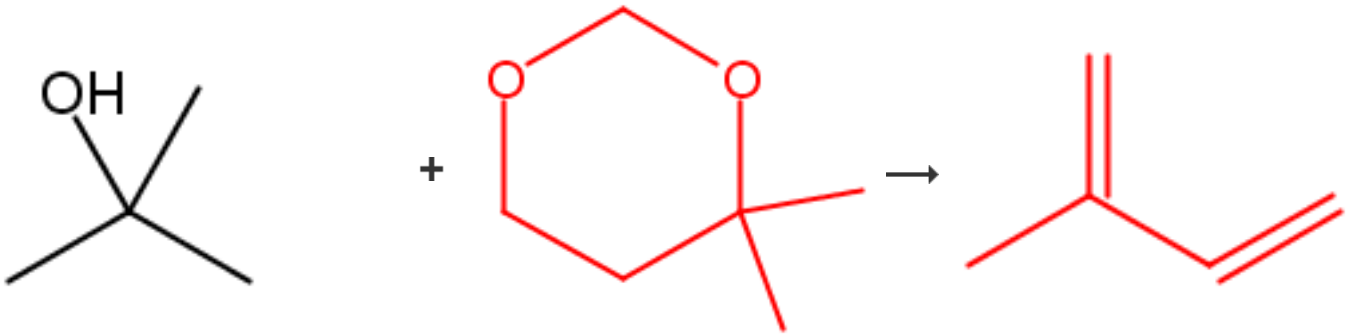
References

Reaction of 4- and 4,4-substituted 1,3-dioxanes with ethyl acetate

By Rakhmankulov, I. L. et al

From Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation), 53(6), 1367-72; 1980

8. 2 Steps



[Step 2.1]

Overview

Steps/Stages

1.1

2.1

Notes

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

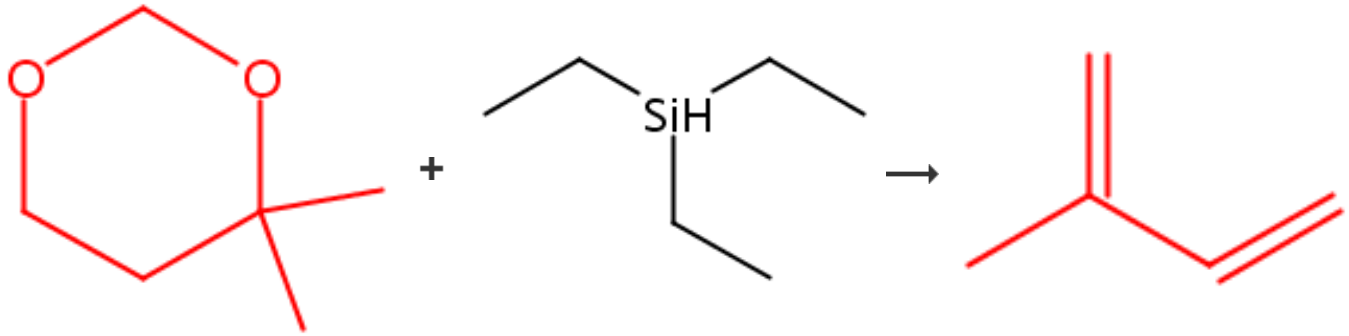
References

Isoprene

By Sasamoto, Masaaki et al

From Jpn. Kokai Tokkyo Koho, 60224642, 09 Nov 1985

9. 2 Steps



Overview

Steps/Stages

1.1 R:$ZnCl_2$

2.1 R:$ZnCl_2$

Notes

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

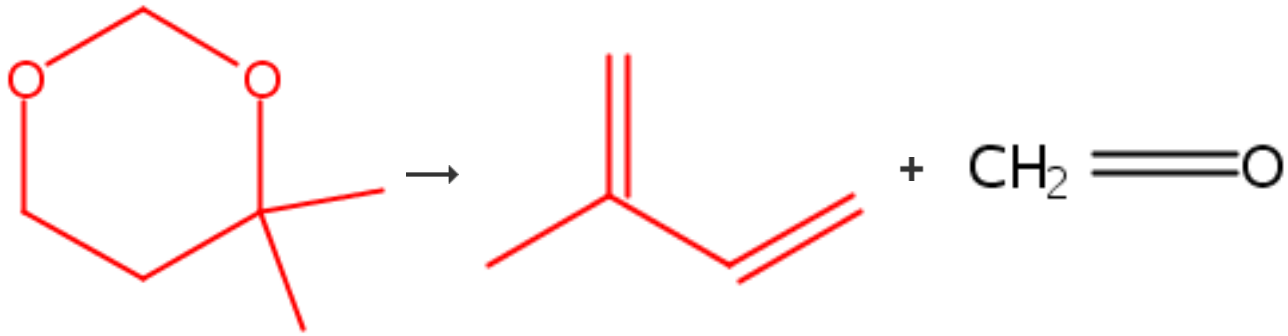
References

Hydrosilylation of 4,4-dimethyl-1,3-dioxane

By Mironov, I. V. et al

From Zhurnal Obshchei Khimii, 51(12), 2700-4; 1981

10. Single Step



80%

Overview

Steps/Stages

1.1

Notes

Classification: Ring cleavage; Pyrolysis; Elimination; # Conditions: heat; # Comments: reactant made from isobutene and formaldehyde, Reactants: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

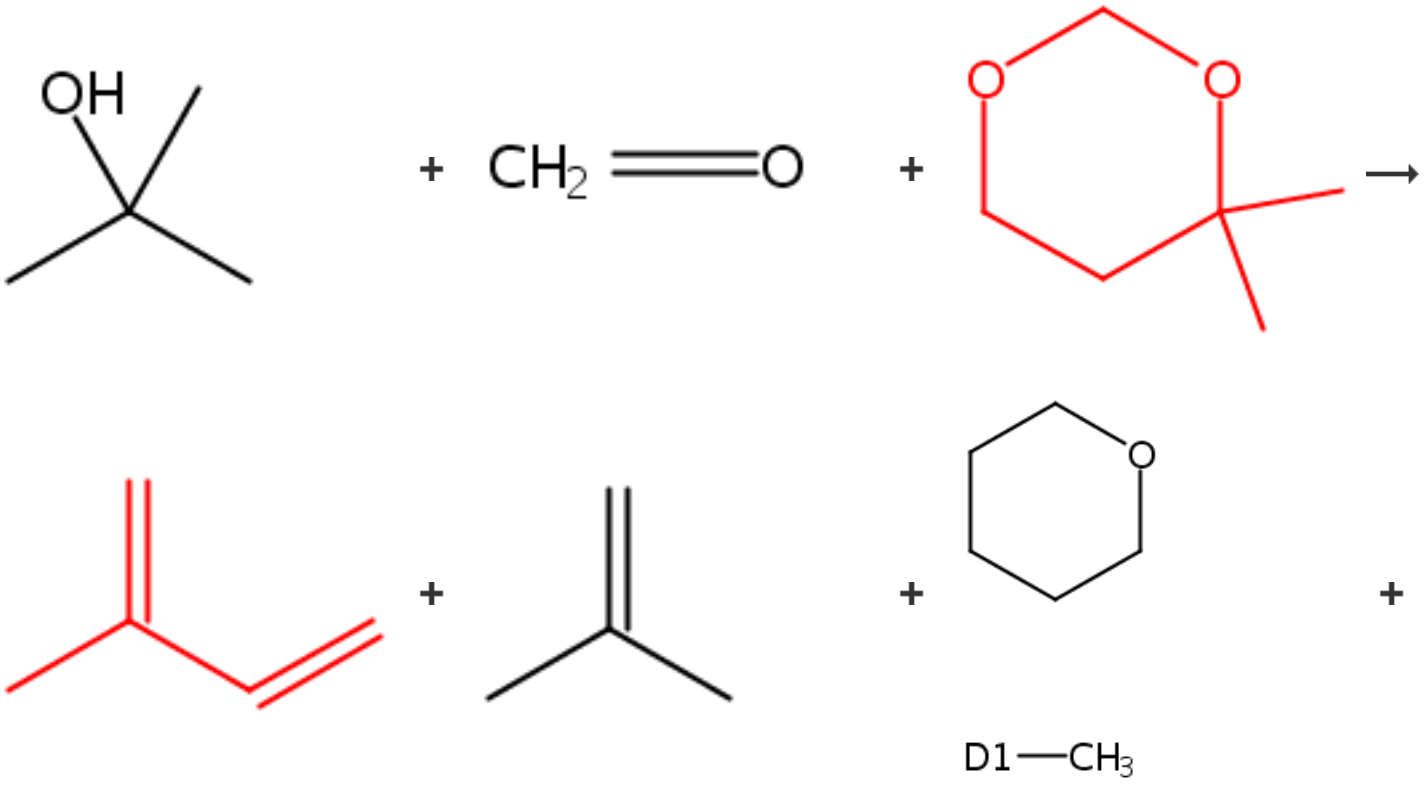
References

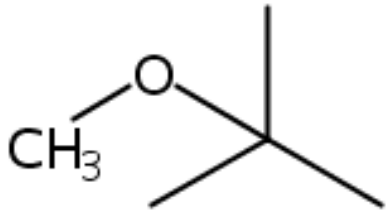
Synthesis of dienes based on olefins and aldehydes. I. Synthesis of isoprene based on isobutylene and formaldehyde

By Farberov, M. I. et al

From Zhurnal Obshchei Khimii, 30, 875-84; 1960

11. Single Step





Overview

Steps/Stages

1.1 C:H_3PO_4, C:Hexamethylentetramine, C:2809-21-4, S:H_2O, 145-155°C, 8-10 kg/cm2

Notes

flow system, high pressure, industrial, thermal, Reactants: 3, Catalysts: 3, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

Method, unit and process for preparation of isoprene by liquid-phase interaction of formaldehyde with C4 isoprene precursors

By Surovtsev, A. A. et al

From Russ., 2341508, 20 Dec 2008