

IUPAC Naming Questions



Ozonolysis Problems

1. What is the product of ozonolysis of 1-butene?
2. Predict the products formed when 2-methylpropene undergoes ozonolysis.
3. Ozonolysis of 1,3-butadiene gives which compounds?
4. Identify the products of ozonolysis of 1-pentene.
5. What are the ozonolysis products of cyclohexene?
6. When 1-hexyne is subjected to ozonolysis, what products are formed?
7. Ozonolysis of 2-pentyne produces which compounds?
8. What happens when ozonolysis is performed on propene?
9. Predict the products of ozonolysis of 2-butene.
10. Identify the products formed when 2-methyl-2-butene undergoes ozonolysis.
11. Ozonolysis of ethene produces what compound?
12. What products are formed from ozonolysis of 1,4-dimethylcyclohexene?
13. What happens when ozonolysis is carried out on 1,2-dimethylbenzene?
14. Predict the outcome of ozonolysis of 1,3-cyclohexadiene.
15. Ozonolysis of 1-octene yields which products?

Key:

1. Formaldehyde and acetaldehyde
2. Acetone and formaldehyde
3. Glyoxal and acrolein
4. Formaldehyde and butanal
5. Only one product: adipaldehyde (hexanedial)
6. Acetic acid and formic acid
7. Acetone and acetic acid
8. Formaldehyde and acetaldehyde
9. Acetaldehyde (2 moles)
10. Acetone and formaldehyde
11. Formaldehyde
12. 1,4-dimethyladipaldehyde
13. Phthalaldehyde
14. Glyoxal and acrolein
15. Nonanal and formaldehyde