

FOR MORE INFORMATION ON T1- ELECTRON COUNTING AND LIGAND TYPES, LOOK: 925-927 IN HOUSECROFT

FOR MORE INFORMATION ON T2- ORGANOMETALLIC BASICS, LOOK ON: 915-926 IN HOUSECROFT

FOR MORE INFORMATION ON T3- ORGANOMETALLIC REACTIONS, LOOK ON: PAGES 940-944 IN HOUSECROFT

FOR MORE INFORMATION ON T4- METALLOCENES AND M- η BONDS, LOOK ON: 880 AND 950 IN HOUSECROFT

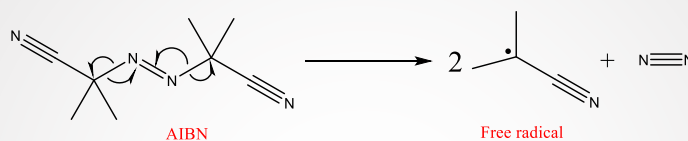
TOPICS DISCUSSED IN THIS INORGANIC CHEMISTRY SECTION: PI DONOR, SIGMA ONLY, PI ACCEPTOR, LIGAND, BACK-DONATION, 18-ELECTRON RULE, LANTHANIDE CONTRACTION, HAPTICITY, OXIDATIVE ADDITION, REDUCTIVE ELIMINATION, MIGRATORY INSERTION, BETA-HYDRIDE ELIMINATION, TRANSMETALLATION, ALKENE METATHESIS, METALLOCENES, 3C-2E BONDS.

Organic Chemistry Example Q/A's-

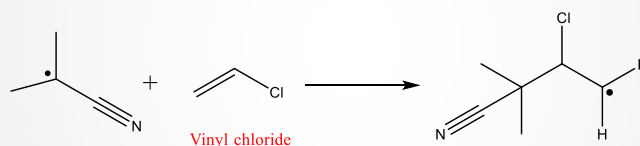
Q1) Describe the three radical reaction steps using the polymerisation reaction of vinyl chloride to poly(vinyl chloride) promoted by Azobisisobutyronitrile (AIBN).

A1)

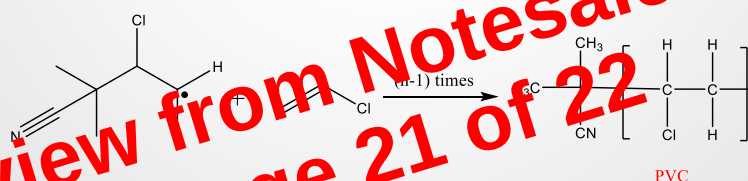
Step 1-



Step 2-

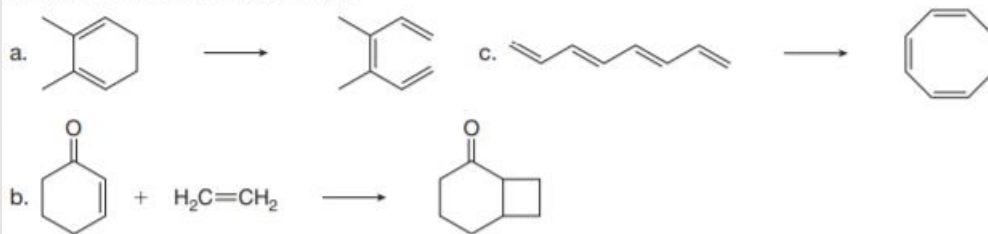


Step 3-



Q2)

Classify each reaction as an electrocyclic reaction or a cycloaddition. Label the σ bonds that are broken or formed in each reaction.



A2) Reaction a is an electrocyclic reaction with the single bond at the end shifting to make the top right double bond etc. Reaction b is a cycloaddition with the $\text{CH}_2=\text{CH}_2$ breaking the double bond and forming a single bond to connect it to the ring. Lastly, reaction c is a electrocyclic reaction.

FOR MORE INFORMATION ON T1-RADICAL GENERATION AND REACTIONS, LOOK ON: 970-999 IN CLAYDEN ORGANIC CHEMISTRY

FOR MORE INFORMATION ON T2- EWG/EDGS AND MECHANISMS, LOOK ON: 471-526 IN CLAYDEN ORGANIC CHEMISTRY

FOR MORE INFORMATION ON T3-PERICYCLIC REACTIONS, LOOK ON: 877-930 IN CLAYDEN ORGANIC CHEMISTRY

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FOR MORE INFORMATION ON T4-SYNTHESIS AND REACTION OF CARBENES, LOOK ON: 1003-1023 IN CLAYDEN ORGANIC CHEMISTRY

TOPICS DISCUSSED IN THIS ORGANIC CHEMISTRY SECTION: RADICALS, STABILITY, BDE, INITIATION, PROPAGATION, TERMINATION, HOMOLYTIC CLEAVAGE, SINGLE ELECTRON TRANSFER, OXIDATION, REDUCTION, SUBSTITUENT EFFECTS, EWG, EDG, ACTIVATING, DEACTIVATING, PERICYCLIC, CYCLOADDITION, DIELS-ALDER, SIGMATROPIC, ELECTROCYCLIC, CARBENE, SINGLET, TRIPLET.