Electrophilic Aromatic Substitution

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In Class (Instructor)

In Class (Students)

Out of Class

Begin Here.

Students are assigned to groups of 3-4 by the instructor.

At a whiteboard or SMART board, students analyze and sort 5 substituents based on whether they are activating or deactivating groups.

01

Students are instructed to switch boards with a second group.

Students peer review and annotate the other group's work.

02

Groups return to their original board to assess and discuss the comments made by their peers.

Each group selects one activating substituent and one deactivating substituent (from their sorted compounds) to add to the benzene ring, then draw resonance structures for both.

01

Students once again switch whiteboards to peer review and annotate the other group's work. Once completed, they assess and discuss the comments made by their peers.

02

Instructor assigns each group a distinct reagent to carry out an aromatic electrophilic substitution onto beneze rings attached to each of the five substituents they previously sorted.

Groups complete these five reactions.

01

Students once again switch whiteboards to peer review and annotate the other group's work. Once completed, they assess and discuss the comments made by their peers.

02

Groups circulate around the room and examine and discuss all finalized reactions posted by their peers.

03

Each group compiles a flow chart outlining the steps required to solve a electrophilic aromatic substitution problem.

04

Out of class, students apply their flow chart in solving related questions, modifying it until it is robust.

05

Work in Groups

Writing

Problem Solving

Discussion

Peer-Review

Bloom's Taxonomy

Remember

Understand

Apply

Analyze

Evaluate

Create