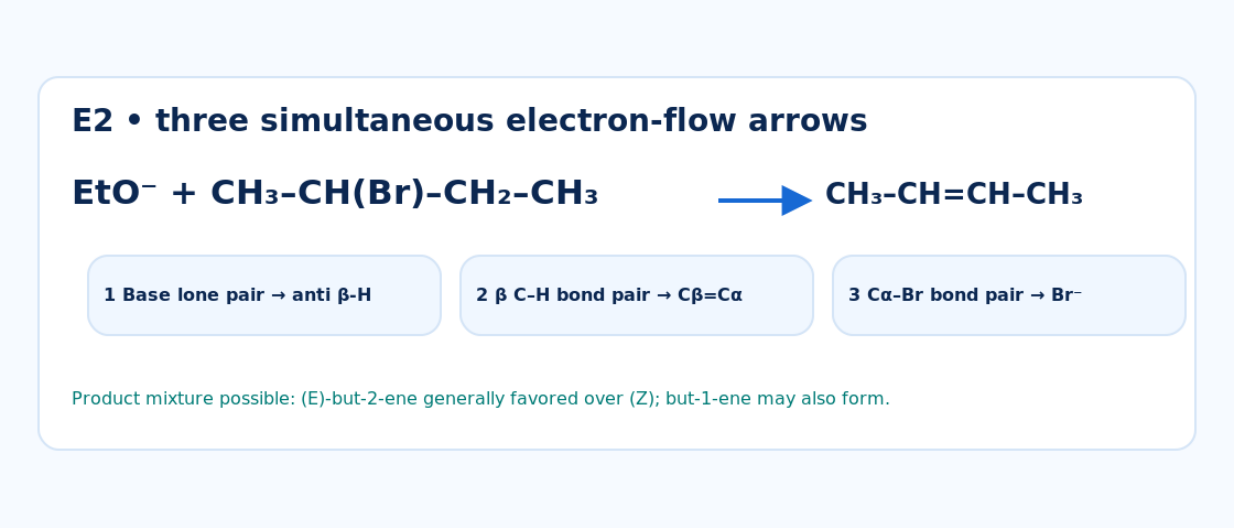
E2 Mechanism Practice

STUDENT WORKSHEET · Mechanism reasoning and curved-arrow practice

Name: _____ Date: _____

Learning target: Identify an accessible beta hydrogen, draw all three E2 arrows, and predict regioselectivity with appropriate qualifications.



Reference illustration: schematic electron-flow map. The exercises below require your own structures and arrows.

1. 2-Bromobutane with NaOEt in ethanol, warm: identify the likely pathway, draw the elementary arrow(s), predict relevant product(s), and name one competing outcome or limitation.

2. 2-Bromobutane with KOtBu in tert-butanol, warm: identify the likely pathway, draw the elementary arrow(s), predict relevant product(s), and name one competing outcome or limitation.

3. 2-Bromo-2-methylbutane with NaOEt in ethanol, warm: identify the likely pathway, draw the elementary arrow(s), predict relevant product(s), and name one competing outcome or limitation.

4. 1-Bromobutane with KOtBu in tert-butanol, warm: identify the likely pathway, draw the elementary arrow(s), predict relevant product(s), and name one competing outcome or limitation.

5. List the three E2 curved arrows and the geometry needed.

6. Why may potassium tert-butoxide favor more terminal alkene than sodium ethoxide?

Practice note: Mechanism selection is evidence-based. Solvent, substrate, temperature, and competing reactions influence outcomes.