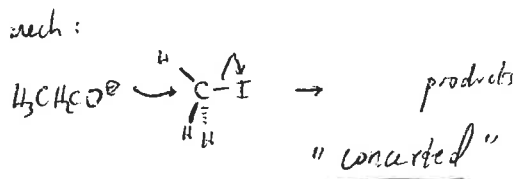
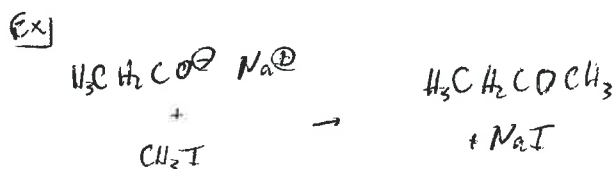


Course 343 Lecturer Gellman  
 Day Friday Date 11/4/16  
 Notes Taken By SLS Total # of Pages 2

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Recall:  $S_N2$  → bimolecular  
 substitution nucleophilic

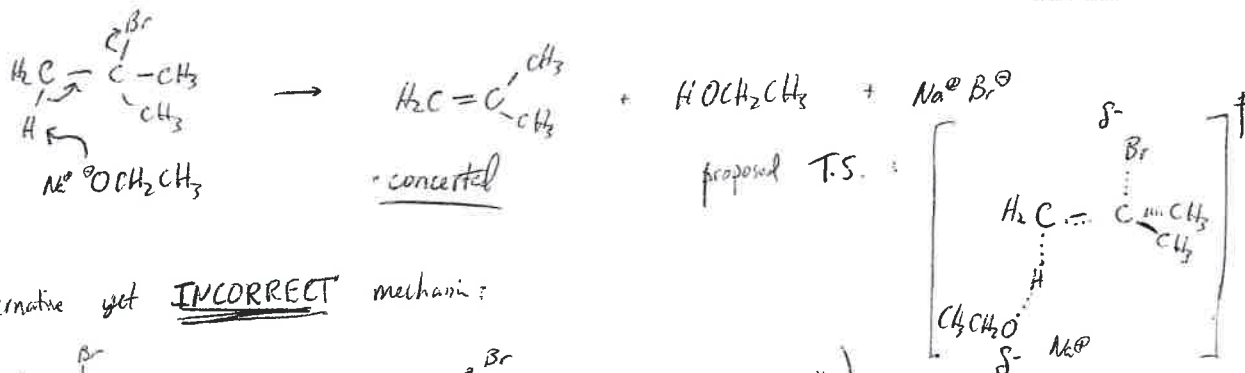


Elimination

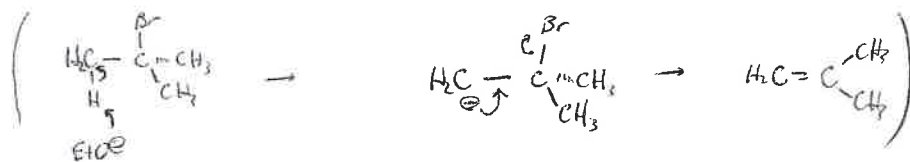


• Kinetic analysis indicates  $\text{rate} = k [(\text{CH}_3)_3\text{CBr}] [\text{CH}_3\text{CH}_2\text{CO}^\ominus \text{Na}^\oplus]$  ∴ Bimolecular mechanism

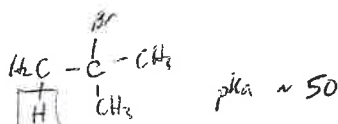
Mech (hypothesis):



Alternative yet INCORRECT mechanism:

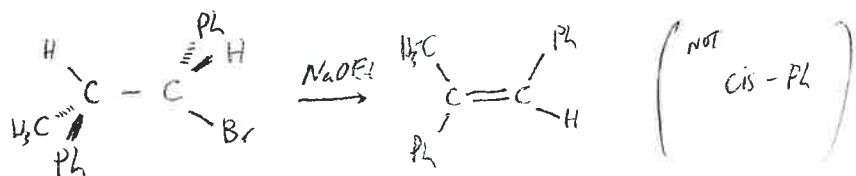
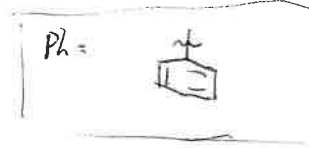
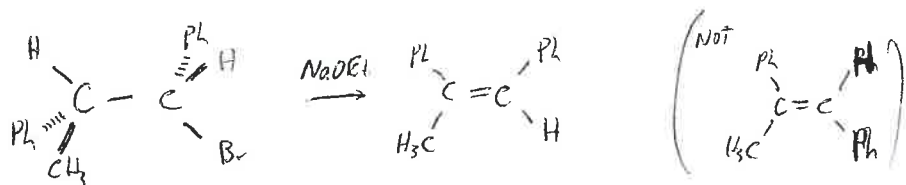


-implausible based on pKa's



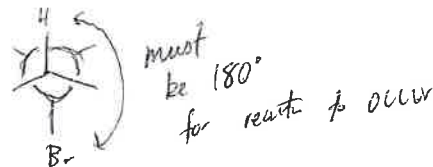
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- Stereochemical considerations rule out Z-step mechanism, support concerted mechanism

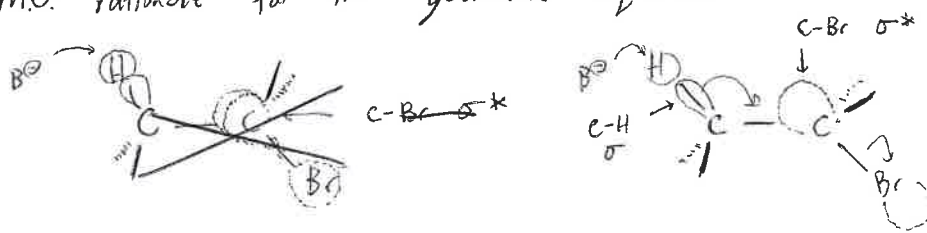


- this stereochem. of the products demonstrates that the leaving of the H & Br are coordinated processes, hence concerted.

- H & Br (L.G) must be antiperiplanar i.e.



- M.O. rationale for this geometric requirement



- E2 are normally not regioselective i.e. multiple elimination products can occur

