

CHEMISTRY 342 PROBLEMS, USING WADE 7

Chapter Topic	Wade Ch	Wade 7 Problems in the Chapter	Wade 7 Problems at end of Chapter	Carey Chap	Carey 8 Problems
Alcohols and Their Synthesis, Including Grignard Reactions/Organo-metallics	10	1, 5d, 6, 8, 10, 12a,b,d, 13-16, 17 (esters only), 18-20, 22-26	31, 33a-d, 34b,c, 35a,c, 36b,c, 37 (review from chapter 8), 38a-l, 39, 40, 42, 43	4, 14, 15, 19	Ch 4: 5, 7, 10, 23,a,c-h, 24b,f,i, 39a,d, 40a,c Ch 14: 3, 4, 5a, 6, 8, 16a, 18b,d,h,km, 19, 20a,b,d,e Ch 19: 15, 17
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Chemistry 342, Jasperse, Readings for Wade Version 7		Wade 6 Readings	Carey 8 Reading
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Test 1 Organometallics and Alcohols: Synthesis, Reactions, and Retrosynthesis			
Structure, Nomenclature, Properties, Weak Acidity of Alcohols		10.1-10.6	4.1-6
Synthesis of Alcohols; Organometallic Reactions.		10.7-10.9	14.1-6, 19.12, 15.4
Side Reactions; Reduction of Carbonyl Compounds		10.10-10.11	15.1-3, 19.13
Catchup; Practice Problems		Catchup	
Oxidation of Alcohols		11.1-11.3	15.10,
Conversion of Alcohols to Tosylates or Halides; Uses of Tosylates and Halides		11.5-11.9	4.7-14, 8.12, 15.6, 15.7,
Miscellaneous; Multistep Synthesis		11.10, 11.14	14.9
Catchup, Multistep Synthesis Problems		Catchup	
Test 2 Spectroscopy and NMR			
1H NMR Overview: Chemical Shift, Integration, and Splitting; 1H NMR Problem Solving		13.5-8	13.1-12, 13.25
1H NMR Problem Solving		13.5-8	13.1-12, 13.25
More Problem Solving; Complex Splitting; Stereochemical Nonequivalence of Protons		13.9-10	13.1-12, 13.25
13C NMR; Infrared Spectroscopy		13.12-13; 12.11-12	13.14-22
Spectroscopy Catchup, Integrated Problems		catchup	
Test 3 Aldehydes, Ketones, and Enolate Reactions			
Ketones/Aldehydes. Nomenclature, Properties, Intro.		18.1-7	17.1-6
Synthesis of Ketones/Aldehydes.		18.7-11	17.4-6
Reactions of Ketones/Aldehydes		18.12, 14-17, 18-19	17.6-10
Reactions of Ketones/Aldehydes		18.20-21	17.6-10
Catchup; Enols and Enolates Intro. Acid/Base Considerations; Proton as Electrophile		22.1-2, 22.15	20.1,2,13
Enols and Enolates Intro. Acid/Base Considerations; Proton as Electrophile		22.1-2, 22.15	20.1,2,13
Halogenation; Alkylation; Double Activation; Ester Hydrolysis; Decarboxylation		22.3, 5, 15-17	20.14, 20.9-12, 18.16
The Aldol Reaction (Aldehyde/Ketone as Electrophile)		22.7-11	20.3-4
Claisen Reaction (Ester as Electrophile)		22.12-17	20.5-8
Catchup			
The Wittig Reaction and Alkene Synthesis; Catchup		18.13	17.12-17.13
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Test 4 Amines, Acids, and Acid Derivatives like Esters and Amides			
Amines. Intro, Nomenclature, Properties; Basicity of Amines; Structural Factors; Salts		19.1-7	21.1-5
Reactions of Amines		19.10-13, 17-18	21.11-12
Diazonium Chemistry; Amine Synthesis by Reductive Amination of Carbonyls		19.17-19	21.16-17,
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Carboxylic Acids: Nomenclature; Properties; *ACIDITY*; Salts; Soap; SYNTHESIS		20.1-5	18.1-7, 18.10-12
Acid Synthesis; Reactions		20.8-11	18.13-15
Reactions of Acids: Nucleophilic Acyl Substitution; Carboxylic Acid Derivatives		20.13-15; 21.1-3	19.1-11, 19.15-16
Interconversions Among Acids and Derivatives; Synthesis and Mechanism; Catchup		21.5-7	19.1-11, 19.15-16
Interconversions Among Acids and Derivatives; Synthesis and Mechanism; Catchup		21.5-7	19.1-11, 19.15-16
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