

**TEXTBOOK ERRORS, POSTED AT CHEM. 350 AND 360 WEB SITES
LOUDON, ORGANIC CHEMISTRY, 4th EDITION**

NOTE: IF YOU ARE A STUDENT IN A CLASS NOT TAUGHT BY RON MAGID, IT'S QUITE POSSIBLE THAT YOUR PROFESSOR WILL NOT CONSIDER SOME OF THE FOLLOWING AS "ERRORS" - IF IN DOUBT, CHECK WITH YOUR INSTRUCTOR.

p. 379, Equation 9.44b: see the comments for p. 418.

p. 394, four lines above Problem 9.24: It is Table 9.2 (not 9.1) that shows the low S_N2 reactivity of neopentyl halides.

p. 400, Problem 9.30(c): see the comments for p. 418.

p. 418, Problem 10.11(b) asks for the major product from a primary tosylate, 4-methyl-1-pentyl tosylate, with *t*-BuO⁻ in *t*-BuOH. The answer given on p. 315 of the Study Guide is the alkene and not the ether. In the preceding chapter, the same base system with a more crowded primary halide, isobutyl bromide, gave 92% elimination, 8% substitution (Eqn 9.44b, p. 379). And for a primary alkyl halide that is between the preceding two in terms of crowding, 1-bromo-3-methylbutane, Problem 9.30(c) (p. 400) says that it reacts with the same base system to give only elimination. Thus, three primary substrates: (CH₃)₂CH-CH₂CH₂CH₂-OTs, (CH₃)₂CH-CH₂-Br, and (CH₃)₂CH₂CH₂-Br with a hindered base/nucleophile give exclusive or mostly E2. Thus far, there is nothing suspicious. But then in Chapter 11, the question arises if a Williamson ether synthesis (p. 455-456) will work when using a bulky nucleophile with a primary substrate. This question is skirted by the material that you'll find. In Study Problem 11.1 (p. 456), *t*-BuO⁻ with CH₃-I gives a good yield of S_N2 product, but it can't do anything else: not only do methyl compounds undergo S_N2 faster than primary but they are also incapable of giving an alkene product. The answer (p. 347 in the Study Guide) to Problem 11.5(b), p. 458, implies that only alkoxymercuration/reduction will give a good yield of *t*-Bu-O-CH₂-CH(CH₃)₂. When this question was raised in Fall, 2005, Prof. Loudon began a search of the chemical literature for relevant examples; what he found were many conflicting claims. I think that the safest conclusion (at the present time) is that the Williamson synthesis should not be used for making an ether of the sort R₃C-O-CH₂R (i.e., from reaction of a bulky base R₃C-O⁻ with a primary substrate X-CH₂-R). [Thanks to Rebecca Davis for noting this inconsistency.]

p. 455-6: see the comments for p. 418.

p. 972, Eqn 21.53e: The reactant should have an R group bonded to N.

THE ERRORS ABOVE WERE POSTED TO THE CHEM. 350 AND 360 COURSE WEB SITES ON DECEMBER 23, 2005
