ORGANIC CHEMISTRY 1 LECTURE GUIDE 2019

BY RHETT C. SMITH

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Instructors: Free PowerPoint lecture slides to accompany this text can be obtained by emailing IQ@protonguru.com from your accredited institution email account. The homepage at protonguru.com provides a link to citations to popular text books for further reading on each Lesson topic in this primer.

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Organic Chemistry 1
Lecture Guide 2019

By Rhett C. Smith, Ph.D.

Companion Books from the Proton Guru:

Organic Chemistry 1 Reactions and Practice Problems 2019

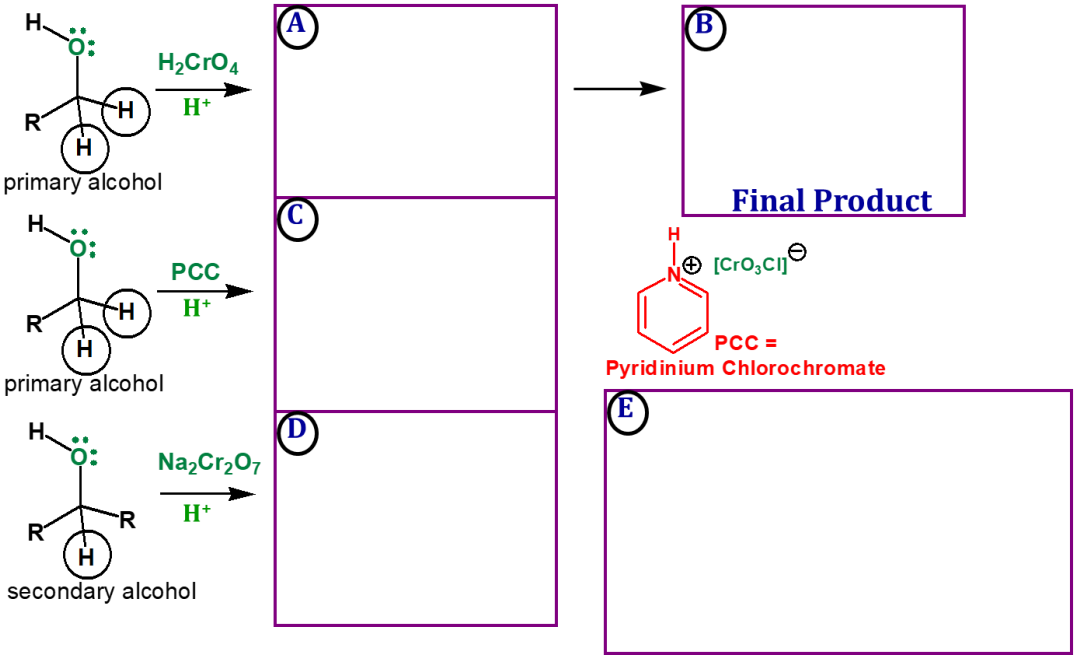
by Rhett C. Smith

Organic Chemistry 1 Primer 2019,

by Rhett C. Smith, Andrew G. Tennyson, and Tania Houjeiry

Lecture Topic II.13: Oxidation of Alcohols
Chromium Reagents are Commonly used to Oxidize Alcohols

Oxidation of alcohols is a useful way to make carboxylic acids, aldehydes, and ketones. Strong oxidizing agents like H^+/CrO_4^{2-}, H^+/Cr_2O_7, CrO_3/H_2SO_4 (Jones Oxidation) replace all C-H bonds of an alcohol C with C–O bonds. PCC is weaker and can only replace one C–H with a C–O bond:



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