

Organic Chemistry

Structure and Function

With Unique
International
Edition
Problem
Sets

SIXTH
EDITION

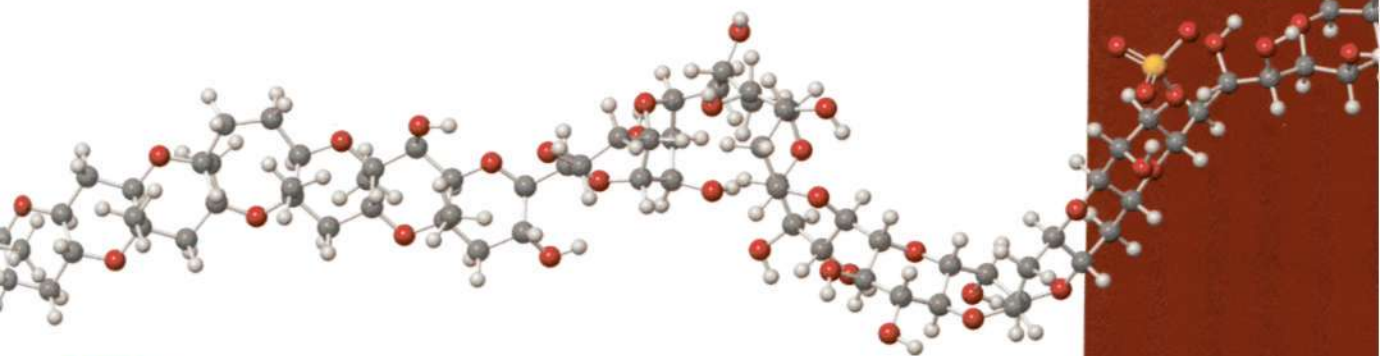
Freeman
Palgrave Macmillan

International
Edition

PETER VOLLHARDT
NEIL SCHORE

THIS EDITION IS FOR USE OUTSIDE THE USA AND CANADA

BRIEF CONTENTS



PREFACE: A User's Guide to Organic Chemistry: Structure and Function	xxiii
1 STRUCTURE AND BONDING IN ORGANIC MOLECULES	1
2 STRUCTURE AND REACTIVITY	49
3 REACTIONS OF ALKANES	95
4 CYCLOALKANES	131
5 STEREOISOMERS	169
6 PROPERTIES AND REACTIONS OF HALOALKANES	215
7 FURTHER REACTIONS OF HALOALKANES	251
8 HYDROXY FUNCTIONAL GROUP: Alcohols	287
9 FURTHER REACTIONS OF ALCOHOLS AND THE CHEMISTRY OF ETHERS	333
10 USING NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY TO DEDUCE STRUCTURE	387
11 ALKENES; INFRARED SPECTROSCOPY AND MASS SPECTROMETRY	445
INTERLUDE: Solving Problems in Organic Chemistry	499
12 REACTIONS OF ALKENES	507
13 ALKYNES	567
14 DELOCALIZED PI SYSTEMS	609
INTERLUDE: A Summary of Organic Reaction Mechanisms	668
15 BENZENE AND AROMATICITY	673

16	ELECTROPHILIC ATTACK ON DERIVATIVES OF BENZENE	731
17	ALDEHYDES AND KETONES	775
18	ENOLS, ENOLATES, AND THE ALDOL CONDENSATION	827
19	CARBOXYLIC ACIDS	871
20	CARBOXYLIC ACID DERIVATIVES	925
21	AMINES AND THEIR DERIVATIVES	971
22	CHEMISTRY OF BENZENE SUBSTITUENTS	1019
23	ESTER ENOLATES AND THE CLAISEN CONDENSATION	1081
24	CARBOHYDRATES: Polyfunctional Compounds in Nature	1117
25	HETEROCYCLES: Heteroatoms in Cyclic Organic Compounds	1165
26	AMINO ACIDS, PEPTIDES, PROTEINS, AND NUCLEIC ACIDS: Nitrogen-Containing Polymers in Nature	1211
	MCAT [®] Questions	MCAT-1
	Answers to Exercises	A-1
	Photograph Credits	C-1
	Index	I-1