

# *THE NONCLASSICAL ION PROBLEM*



*Herbert C. Brown*

*Chairman, Chemistry*

*Princeton University, Princeton, NJ*

# Nonclassical Ion Problem

**Shasha Hu**



## Nonclassical Ion Problem:

**The Nonclassical Ion Problem** Herbert C. Brown, 2012-12-06 1 That Fascinating Nonclassical Ion Problem 1 1 Introduction 1 2 Origins 1 3 The Nonclassical Ion Era 1 4 Steric Assistance 1 5 An Alternative Interpretation 1 6 The Rococo Period of Carbonium Ion Structures 1 7 Difficulties in Challenging an Accepted Theory 1 8 Further Difficulties A Soft Theory 1 9 Still Further Difficulties Selective Reviews 1 10 Conclusion Comments 2 Steric Assistance in Solvolytic Processes 2 1 Introduction 2 2 Steric Assistance in the Solvolysis of Highly Branched Alkyl Derivatives 2 3 Steric Assistance in the Relative Effect *The Nonclassical Ion Problem*, 1977-07-31 The Nonclassical Ion Problem Herbert Charles Brown, 1977

**Contemporary Problems in Carbonium Ion Chemistry I/II** C. Rees, 2013-11-27 In 1965 a book by P Bartlett appeared under the title *The Nonclassical Ions* 1 The book is a collection of papers reprinted from various journals The many reviews that have appeared since 2 22 are either antiquated the book published in 1972 12 covers the literature mainly before 1968 or relatively biased e g 3 4 10 on brief 2 7 11 This review attempts to discuss the various points of view on the nonclassical carbocations The main point is to establish the relative role of nonclassical and classical ions in various chemical processes The author has followed P Bartlett's advice 1 that when setting forth the achievements of the human mind one should see how we came to the modern understanding of a given problem how we know what we know The theory of nonclassical ions offers an explanation of many unique chemical stereochemical and kinetic peculiarities of bicyclic compounds It has expanded our knowledge on chemical bonds in carbocations by introducing electron deficient bonds as in boron hydrides It has accounted for many rearrangements of stable cations As a side result our knowledge has been extended about ionization processes in a solution as well as about stereochemical methods 2 Main Terms of Nonclassical Carbocations In 1939 Hevell Salas and Wilson 23 assumed an intermediate bridge ion 2 to be formed when camphene hydrochloride 1 is rearranged into isobornyl chloride 3 This happened 17 years after Meerwein first postulated the intermediate formation of carbonium ions in chemical reactions A Study of the Nonclassical Ion Problem Involving the 7-norbornenyl Cation Lee H. Wilming, 1969

*Advanced Organic Chemistry* Francis A. Carey, Richard J. Sundberg, 2000 This is part A of a new edition of a two volume text on organic chemistry that aims to solidify and extend the student's understanding of basic concepts and to illustrate how structural changes influence mechanism and reactivity **Boranes in Organic Chemistry** Herbert C. Brown, 2019-06-30

The leading researcher in the uses of boranes in organic synthesis here reviews his work over the past thirty five years covering such areas as steric strains the nonclassical ion problem selective reductions hydroboration and the organoboranes as synthetic intermediates But more than an exposition of enormous accomplishment the book is a scientific autobiography that will provide chemists with historical perspective on their profession The author's detailed narrative of his own research experiences not only adds to the understanding of the present state of the study of boranes but will serve as a stimulus to imaginative research in the future **Nonclassical Ions** Paul D. Bartlett, 1965 Across Conventional Lines: Selected

Papers Of George A Olah (In 2 Volumes) George A Olah, G K Surya Prakash, 2003-01-29 In the course of his distinguished career spanning about half a century George A Olah winner of the 1994 Nobel Prize for Chemistry has been exceedingly prolific and has published more than 1000 scientific papers and 15 books and holds more than 100 patents This invaluable volume contains about 250 papers selected for their breadth and current importance *Problems in Advanced Organic Chemistry* Toshio Gotō, Yoshimasa Hirata, George H. Stout, 1968 **Study Guide to Organic Chemistry** Robert Thornton Morrison, Robert Neilson Boyd, 1987 The Properties of Electron Deficient Carbonium Ions John Jeffrey Talley, 1979

**Acido-basic Catalysis** Christian Marcilly, 2005-11 This book presents a complete overview of acido basic catalysis applied to refining and petrochemistry as well as the fundamentals and the information required for a rational and coherent description of the major operations carried out in these two industries The book places special emphasis on the reactional and mechanistic characteristics of hydrocarbon conversions and on the properties of the acids or bases underlying catalytic performance It also focuses on the industrial aspects showing how these characteristics and properties determine the choice and features of the processes used This reference manual is intended for professionals scientists engineers and teachers wanting to acquire a solid background develop their knowledge or find further information It will also be useful to students specialising in catalysis and the catalytic conversions of hydrocarbons Contents Volume 1 1 Overview on Acido Basicity 2 Main Acids Superacids and Bases of Interest in Catalysis 3 Chemistry of Carbocations 4 Reactivity and Conversion Modes of the Main Hydrocarbon Families 5 Introduction to Refining and Petrochemistry 6 Base Catalysis Examples of Industrial Applications Glossary Index Volume 2 7 Conversion of Aliphatic Feedstocks 8 Conversion of Simple Aromatic Feedstocks 9 Reactions between Various Hydrocarbons and the Alcohols Conversion of Methanol into Hydrocarbons 10 Catalytic Reforming 11 Processes Used in the Conversion of Heavy Feedstocks 12 Catalytic Dewaxing 13 Shape Selectivity in Acid Catalysis Conclusion Glossary Index **Low-temperature Inert-atmosphere X-ray Crystallographic Studies of Several Carbocations** Martin Paul Grendze, 1989 *Essays on the History of Organic Chemistry in the United States, 1875-1955* D. Stanley Tarbell, Ann Tracy Tarbell, 1986 **Canadian Journal of Chemistry**, 2009 **Carbonium Ions, Major Types** George A. Olah, 1968 Vols 2 5 published by Wiley Interscience New York **Indiana Authors and Their Books: 1967-1980**, 1949 **Journal of Organic Chemistry of the USSR**, 1983 **Molecular Structure and Conformation** I. G. Csizmadia, 1982 Good No Highlights No Markup all pages are intact Slight Shelfwear may have the corners slightly dented may have slight color changes slightly damaged spine

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