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POLYCYCLIC AROMATIC HYDROCARBONS BIOREMEDIATION OF CHLORINATED AND POLYCYCLIC AROMATIC HYDROCARBON COMPOUNDS Investigation of the Distribution of Organochlorine and Polycyclic Aromatic Hydrocarbon Compounds in the Lower Columbia RIVER USING SEMIPERMEABLE MEMBRANE DEVICES SULFUR ANALOGUES OF POLYCYCLIC AROMATIC HYDROCARBONS (THIAARENES) HANDBOOK OF POLYCYCLIC AROMATIC HYDROCARBONS THE STRUCTURES & REACTIONS OF THE AROMATIC COMPOUNDS THE MECHANISMS OF ATMOSPHERIC Oxidation of the Aromatic Hydrocarbons Analytical Chemistry of Polycyclic Aromatic Compounds Polycyclic Aromatic COMPOUNDS POLYNUCLEAR AROMATIC COMPOUNDS POLYCYCLIC AROMATIC HYDROCARBONS BIOREMEDIATION TECHNOLOGIES FOR Polycyclic Aromatic Hydrocarbon Compounds Nitration of Hydrocarbons and Other Organic Compounds The Structures f REACTIONS OF THE AROMATIC COMPOUNDS INDUSTRIAL AROMATIC CHEMISTRY METHODS OF ANALYSIS BY THE U.S. GEOLOGICAL SURVEY NATIONAL WATER QUALITY LABORATORY AN INTRODUCTION TO THE CHEMISTRY OF BENZENOID COMPOUNDS HANDBOOK OF POLYCYCLIC AROMATIC HYDROCARBONS AROMATIC C-NITROSO COMPOUNDS HANDBOOK OF POLYCYCLIC AROMATIC HYDROCARBONS CARBON-RICH COMPOUNDS BASE-CATALYZED REACTIONS OF HYDROCARBONS AND RELATED COMPOUNDS CARBON RICH COMPOUNDS I SYNTHESIS OF AROMATIC COMPOUNDS THE MECHANISMS OF ATMOSPHERIC OXIDATION OF AROMATIC HYDROCARBONS THE CHEMISTRY OF NONBENZENOID AROMATIC COMPOUNDS — II POLYCYCLIC AROMATIC HYDROCARBON MIGRATION FROM CREOSOTE-TREATED RAILWAY TIES INTO BALLAST AND ADJACENT WETLANDS CHEMISTRY RESEARCH AND APPLICATIONS POLYCYCLIC AROMATIC HYDROCARBONS PHOTOPHYSICAL AND PHOTOCHEMICAL PROPERTIES OF AROMATIC COMPOUNDS WASTEWATER TREATMENT PETROLEUM PRODUCTS. DETERMINATION OF AROMATIC Hydrocarbon Types in Middle Distillates. High Performance Liquid Chromatography Method with Refractive Index Detection SPECTRAL ATLAS OF POLYCYCLIC AROMATIC COMPOUNDS CERTAIN POLYCYCLIC AROMATIC HYDROCARBONS AND HETEROCYCLIC COMPOUNDS PAHs and Related Compounds Reactions of Aromatic Compounds Industrial Arene Chemistry Ultraviolet Spectra of Aromatic COMPOUNDS BIRCH REDUCTION OF AROMATIC COMPOUNDS THE BIOSYNTHESIS OF AROMATIC COMPOUNDS

1/10

POLYCYCLIC AROMATIC HYDROCARBONS

1991-11-07

THIS 1991 VOLUME WAS THE FIRST TO REVIEW THE CHEMICAL PROPERTIES OF THE CARCINOGENIC POLYCYCLIC AROMATIC HYDROCARBONS

BIOREMEDIATION OF CHLORINATED AND POLYCYCLIC AROMATIC HYDROCARBON COMPOUNDS

1994-02-28

THIS TIMELY REFERENCE PRESENTS THE STATE OF THE ART OF THE EMERGING AND RAPIDLY CHANGING FIELD OF BIOREMEDIATION OF CHLORINATED SOLVENTS PCBS AND OTHER CHLORINATED COMPOUNDS AS WELL AS PARS BOTH IN SITU AND ON SITE THIS LANDMARK PUBLICATION REPORTS SIGNIFICANT ADVANCES IN BIOREMEDIATION WITH AN EMPHASIS ON PRACTICAL APPLICATIONS AND STATE OF THE ART DEVELOPMENTS LABORATORY AND FIELD ORIENTED REVIEWS ARE PRESENTED WITH THE OBJECTIVE OF TYING TREATABILITY STUDIES AND RECENT LABORATORY DEVELOPMENTS TO FIELD APPLICATIONS NO OTHER REFERENCE SOURCE GIVES YOU ACCESS TO THE MOST CURRENT TECHNIQUES AND METHODS FOR THE BIOREMEDIATION OF CHLORINATED AND POLYCYCLIC AROMATIC HYDROCARBON COMPOUNDS THIS BOOK REPRESENTS THE WORK OF LEADING EXPERTS IN THE FIELDS OF IN SITU AND ON SITE BIOREMEDIATION FROM NORTH AMERICA EUROPE AND ASIA THE CHAPTERS INCLUDE CURRENT FIELD APPLICATIONS AND LABORATORY STUDIES UNDERTAKEN IN SOME CASES IN COUNTRIES WITH REGULATORY STANDARDS MORE STRINGENT THAN THOSE OF THE UNITED STATES

Investigation of the Distribution of Organochlorine and Polycyclic Aromatic Hydrocarbon Compounds in the Lower Columbia River Using Semipermeable Membrane Devices

1999

FIRST PUBLISHED IN 1990 SULFUR CONTAINING POLYCYCLIC AROMATIC COMPOUNDS THIAARENES PLAY A POTENTIALLY IMPORTANT ROLE IN ENVIRONMENTALLY INDUCED CANCERS THE MAIN SOURCES OF THESE COMPOUNDS BEING FOSSIL FUELS SUCH AS COAL PETROLEUM AND SHALE OILS FROM WHICH THEY ARE RELEASED EITHER DIRECTLY OR VIA COMBUSTION INTO THE ENVIRONMENT INFORMATION ON THE SPECIFIC CONTRIBUTION OF THIAARENES TO THE MUTAGENIC AND CARCINOGENIC POTENCIES OF ENVIRONMENTAL MATTER IS VERY LIMITED BUT THIS BOOK GIVES CREDIT TO NEW AND EXCITING DATA IN THIS FIELD OUR PRESENT KNOWLEDGE OF THE OCCURRENCE CHEMICAL AND PHYSICAL PROPERTIES ANALYSIS SYNTHESIS TOXICOLOGY AND BIOCHEMISTRY OF THE SULFUR CONTAINING AROMATIC COMPOUNDS IS SUMMARIZED IN THIS VOLUME THE FIRST HALF OF THE BOOK COVERS ALL ASPECTS OF CHEMISTRY AND CARCINOGENICITY WHILST THE REMAINDER SUMMARIZES INFORMATION ON THE VARIOUS THIAARENE SYSTEMS COMPOUND BY COMPOUND THIS VOLUME WILL PROVIDE A VALUABLE SOURCE OF REFERENCE FOR CHEMISTS TOXICOLOGISTS BIOLOGISTS AND ENVIRONMENTALISTS WORKING IN CANCER RESEARCH INSTITUTES AND UNIVERSITIES AND FOR RESEARCH SCIENTISTS WORKING IN THE AREAS OF POLLUTION MONITORING PUBLIC HEALTH AND FUEL CHEMISTRY

SULFUR ANALOGUES OF POLYCYCLIC AROMATIC HYDROCARBONS (THIAARENES)

1990

THIS VOLUME CONCERNS SOURCES OF POLYCYCLIC AROMATIC HYDROCARBONS PAH THEIR EMISSION FACTORS AND RELATIVE IMPORTANCE IT DEALS WITH EXPOSURE UPTAKE METABOLISM AND DETECTION OF PAH IN THE HUMAN BODY THE VOLUME CONTAINS AN UPDATE OF INFORMATION IN ENVIRONMENTAL AND BIOCHEMICAL STUDIES OF PAH

HANDBOOK OF POLYCYCLIC AROMATIC HYDROCARBONS

1985-12-06

THIS TEXT REVIEWS MANY OF THE ASPECTS OF THE CHEMISTRY OF THE AROMATIC HYDROCARBONS AND A CONSENSUS EVALUATION OF THE DATA BY SEVEN OF THE LEADING ATMOSPHERIC SCIENTISTS THE BOOK COVERS TOPICS RANGING FROM THE RELATIVE IMPORTANCE OF THE COMPOUNDS IN OZONE AND HAZE DEVELOPMENT TO METHODS OF ESTIMATING ELEMANTARY RATE COEFFICIENTS BASED ON STRUCTURAL FEATURES OF THE COMPOUNDS TO MECHANISMS OF AEROSOL GENERATION AND ATMOSTPHERIC REACTION OF THE POLYCYCLIC COMPOUNDS TO PHOTOCHEMICAL PROCESSES IT IDENTIFIES FEATURES OF THE AROMATIC HYDROCARBONS REQUIRING FURTHER STUDY AND APPENDICIES GIVE THE STRUCTURAL FORMULAS AND NOMENCLATURE OF THE COMPOUNDS REVIEWED IN THE BOOK

THE STRUCTURES & REACTIONS OF THE AROMATIC COMPOUNDS

2002-02-14

ANALYTICAL CHEMISTRY OF POLYCYCLIC AROMATIC COMPOUNDS FOCUSES ON THE CHEMICAL AND PHYSICAL PROPERTIES OF THE POLYCYCLIC AROMATIC COMPOUNDS CRITICALLY EVALUATING VARIOUS CHROMATOGRAPHIC AND SPECTROSCOPIC METHODS THIS BOOK DISCUSSES HOW GAS CHROMATOGRAPHY AND HIGH PERFORMANCE LIQUID CHROMATOGRAPHY CAN BE BOTH COMPETITIVE AND COMPLEMENTARY ANALYTICAL METHODS ANCILLARY TECHNIQUES OF BOTH ARE EMPHASIZED FOR THE STRUCTURAL ELUCIDATION OF INDIVIDUAL POLYCYCLIC AROMATIC COMPOUNDS IN COMPLEX MIXTURES THE MERITS OF SPECTROSCOPIC METHODS IN BOTH STRUCTURAL WORK AND QUANTITATION ARE ALSO DESCRIBED THIS TEXT LIKEWISE PROVIDES BACKGROUND INFORMATION CONCERNING THE CHEMISTRY OCCURRENCE AND TOXICOLOGY OF POLYCYCLIC AROMATIC COMPOUNDS INCLUDING THE ISOLATION OF POLYCYCLIC AROMATIC COMPOUNDS FROM A WIDE VARIETY OF MATERIALS AND MATRICES THIS PUBLICATION IS RECOMMENDED TO SCIENTISTS INVOLVED WITH THE STUDY OF POLYCYCLIC AROMATIC COMPOUNDS ANALYSTS WHO NEED TO ACQUIRE ROUTINE DATA AND INDIVIDUALS CHARGED WITH FORMULATING ENVIRONMENTAL POLICIES AND DRAFTING REGULATIONS

THE MECHANISMS OF ATMOSPHERIC OXIDATION OF THE AROMATIC HYDROCARBONS

2012-12-02

A COMPILATION OF SOME 150 REFEREED PAPERS THAT WERE PRESENTED AT PAH 13 OCTOBER 1991 THE FIRST MEETING IN THE PAH SYMPOSIUM SERIES TO BE CONVENED OUTSIDE THE US THE PAPERS CONCERN THE CHEMISTRY BIOLOGICAL EFFECTS AND MEASUREMENT OF POLYCYCLIC AROMATIC HYDROCARBONS AND RELATED COMPOUNDS FOLLOWING TWO PAPERS BY GERNOT GRIMMER WHO RECEIVED THE 1991 PAH AWARD AT THE MEETING FOR HIS LIFETIME CONTRIBUTIONS IN ALL THREE OF THE AFOREMENTIONED AREAS THE REMAINING PAPERS ARE ARRANGED WITHIN 13 SECTIONS STANDARD REFERENCE MATERIALS AND METHODS PAH TRANSFORMATION AND DEGRADATION MOLECULAR MODELING AND THEORY PAH ANALYSIS METHODOLOGY PAH ANALYSIS IN AQUATIC SYSTEMS AND GEOLOGICAL SAMPLES PAH ANALYSIS IN EMISSION SOURCES AND IN AMBIENT AIR PAHS IN COAL AND PETROLEUM METABOLIC ACTIVITY MUTAGENICITY DNA ADDUCTS MECHANISMS CHARACTERIZATION DNA BINDING METABOLIC ACTIVATION PAH EXPOSURE BIOMONITORING COMPARATIVE METABOLISM OF B A P AND BIOACTIVATION METABOLITES NOTE BOTH CIP AND BOOKS IN PRINT INCORRECTLY SHOW THE TITLE AS POLYNUCLEAR ANNOTATION COPYRIGHT BY BOOK NEWS INC PORTLAND OR

ANALYTICAL CHEMISTRY OF POLYCYCLIC AROMATIC COMPOUNDS

1993-03-03

PRESENTS ACCOUNTS OF CURRENT RESEARCH IN POLYNUCLEAR AROMATIC COMPOUNDS SHOWING EXAMPLES OF STUDIES BOTH OF PURE COMPOUNDS AND OF COMPLEX FOSSIL FUEL RELATED MIXTURES OFFERS A THOROUGH KNOWLEDGE OF AROMATIC CHEMISTRY THROUGH COVERAGE OF REDUCTION OXIDATION AND THERMAL REACTIONS INCLUDING APPLICATIONS DEVELOPED FOR BOTH COAL AND PETROLEUM MATERIALS FEATURED TOPICS INCLUDE QUANTUM CHEMICAL STRUCTURE REACTIVITY RELATIONSHIPS SPATIAL CONFIGURATIONS OF LARGE POLYNUCLEAR HYDROCARBONS CYCLOPHANES AND DESULFURIZATION OF HETEROCYCLES SCIENTISTS STUDYING ALL ASPECTS OF THE CHEMISTRY OF POLYNUCLEAR AROMATICS WILL DISCOVER IMPORTANT PERTINENT INFORMATION IN THIS VOLUME

POLYCYCLIC AROMATIC COMPOUNDS

1988

A RESURGENCE OF INTEREST IN THE CHEMISTRY OF POLYCYCLIC AROMATIC HYDROCARBONS PAHS HAS BEEN STIMULATED BY THE DISCOVERY OF THE FULLERENES AND THE IDENTIFICATION OF THE ACTIVE METABOLITES OF THE CARCINOGENIC POLYCYCLIC HYDROCARBONS PAHS ARE WIDESPREAD ENVIRONMENTAL POLLUTANTS IMPROVED UNDERSTANDING OF THEIR MECHANISMS OF CARCINOGENESIS HAS IMPORTANT IMPLICATIONS FOR HUMAN CANCER PAHS ALSO ARE FINDING INCREASING APPLICATION IN THE SYNTHESIS OF DYES DRUGS AND NUMEROUS OTHER TYPES OF COMPOUNDS THIS VOLUME IS A TIMELY COMPREHENSIVE SURVEY OF THE CHEMISTRY OF PAHS IT BRINGS TOGETHER IN A SINGLE VOLUME ALL ESSENTIAL INFORMATION ON THE PHYSICAL AND SPECTRAL PROPERTIES METHODS OF SYNTHESIS CHEMICAL REACTIONS AND MOLECULAR STRUCTURES OF A BROAD RANGE OF POLYARENES BOTH ALTERNANT AND NONALTERNANT A TOTAL OF 358 RING SYSTEMS ARE COVERED 233 OF WHICH ARE NONALTERNANT PAH COMPOUNDS THIS IS THE MOST COMPLETE ACCOUNT OF THE CHEMISTRY OF PAHS CURRENTLY AVAILABLE

POLYNUCLEAR AROMATIC COMPOUNDS

1997

POLYCYCLIC AROMATIC HYDROCARBON COMPOUNDS PAHS ARE COMMON AND CHALLENGING CONTAMINANTS THAT AFFECT SOIL AND SEDIMENTS METHODS FOR TREATING PAHS HAVE UNDERGONE CHANGE AND REFINEMENT IN THE RECENT PAST AND THIS VOLUME PRESENTS THE LATEST TRENDS IN PAH REMEDIATION THEORY AND PRACTICE THE PAPERS IN THIS VOLUME COVER TOPICS RANGING FROM THE REMEDIATION OF MANUFACTURED GAS PLANT MGP SITES TO THE REMEDIATION OF SEDIMENTS THE PAPERS PRESENT LAB AND FIELD STUDIES CHARACTERIZATION STUDIES COMPARISON STUDIES AND DESCRIPTIONS OF TECHNOLOGIES RANGING FROM COMPOSTING TO THERMALLY ENHANCED BIOREMEDIATION TO FUNGAL TECHNOLOGIES AND OTHER INNOVATIVE APPROACHES

POLYCYCLIC AROMATIC HYDROCARBONS

1999

NITRATION OF HYDROCARBONS AND OTHER ORGANIC COMPOUNDS TACKLES VARIOUS CONCERNS IN THE PROCESS OF SUBSTITUTING HYDROGEN ATOMS IN THE AROMATIC OR HETEROCYCLIC NUCLEUS OR IN SATURATED HYDROCARBON BY NITRO GROUPS THE TITLE FIRST COVERS THE NITRATION OF AROMATIC AND HETEROCYCLIC COMPOUNDS WITH NITRIC ACID AND NITRATING MIXTURE AND THEN PROCEEDS TO DISCUSSING THE MECHANISM OF THE NITRATION OF AROMATIC COMPOUNDS WITH NITRIC ACID AND NITRATING MIXTURE NEXT THE SELECTION DEALS WITH THE NITRATION OF SATURATED AROMATIC ALIPHATIC AND UNSATURATED HYDROCARBONS WITH NITRIC ACID THE TEXT ALSO TALKS ABOUT THE NITRATION WITH NITROGEN OXIDES ALONG WITH THE NITRATION OF AMINES THE LAST CHAPTER DETAILS THE NITRATION OF ORGANIC COMPOUNDS WITH ORGANIC AND INORGANIC NITRATES AND NITROXYL THE BOOK WILL BE OF GREAT INTEREST TO STUDENTS RESEARCHERS AND PRACTITIONERS OF ORGANIC CHEMISTRY

BIOREMEDIATION TECHNOLOGIES FOR POLYCYCLIC AROMATIC HYDROCARBON COMPOUNDS

2013-10-22

THE BENZENE PROBLEM THE THEORETICAL SOLUTION OF THE BENZENE PROBLEM AND A DEFINITION OF THE TERM AROMATIC SOME PROPERTIES OF AROTIC COMPOUNDS ADDITION REACTIONS OF AROMATIC COMPOUNDS THE AROMATIC DOUBLE BOND THE EFFECTS OF SUBSTITUENTS AROMATIC SUBSTITUTION REATIONS THE DIELS ALDER REACTION PHOTO OXIDATION AND PHOTO DIMERIZATION ABSORPTION AND FLUORESCENCE SPECTRA OF AROMATICA COMPOUNDS OPTICAL ACTIVITY IN AROMATIC COMPOUNDS

NITRATION OF HYDROCARBONS AND OTHER ORGANIC COMPOUNDS

1954

AROMATIC ORGANIC HYDROCARBONS AND HETEROCYCLES REPRESENT A BULK OF ABOUT ONE THIRD OF ALL INDUSTRIALLY PRODUCED ORGANIC BASIC MATERIALS AROMATIC COMPOUNDS SUCH AS BENZENE PHENOL NAPHTHALENE ANTHRACENE AND THEIR HOMOLOGUES ARE DERIVED FROM RAW MATERIALS COAL CRUDE OIL AND BIOGENIC RESOURCES BY THERMAL AND CATALYTIC REFINING PROCESSES THIS BOOK INTRODUCES THE CHEMISTRY OF AROMATICS WITH A BRIEF DISCUSSION OF THE AROMATIC CHARACTER AND A SURVEY OF HISTORICAL ASPECTS PARTICULARLY THE DEVELOPMENT OF THE ORGANIC DYE INDUSTRY DURING THE 19TH CENTURY THE MAIN EMPHASIS OF THE BOOK IS TO GIVE A CLEAR PROSPECT OF INDUSTRIAL PROCESSES FOR THE PRODUCTION AND THE DERIVATISATION OF AROMATICS WITH CONSISTENT FLOW DIAGRAMS ECONOMICAL ASPECTS OF BY AND SIDE PRODUCTS ARE ESPECIALLY REGARDED FOR THE MOST IMPORTANT AROMATICS AN ANALYSIS OF THE INTERNATIONAL MARKET INCLUDED THEIR DERIVATIVES POLYMERS PESTICIDES DYES PIGMENTS AND DRUGS PROFESSIONAL SCIENTISTS MANAGERS AND STUDENTS IN CHEMISTRY AND CHEMICAL ENGINEERING WILL FIND A WEALTH OF INFORMATION FOR THEIR CAREER AND DAILY WORK

THE STRUCTURES & REACTIONS OF THE AROMATIC COMPOUNDS

2012-12-06

AN INTRODUCTION TO THE CHEMISTRY OF BENZENOID COMPOUNDS IS AN INTRODUCTORY TEXT TO SOME CHEMICAL ASPECTS OF BENZENOID COMPOUNDS THIS BOOK IS COMPOSED OF 13 CHAPTERS THAT SPECIFICALLY COVER THE SOURCES PROPERTIES AND REACTIONS OF THESE COMPOUNDS THE OPENING CHAPTERS DESCRIBE THE STRUCTURAL ASPECTS OF BENZENOID COMPOUNDS INCLUDING THEIR HOMOLOGUES ISOMERS AND AROMATICITY THE SUBSEQUENT CHAPTERS DEAL WITH THE DISUBSTITUTION AND ADDITION REACTIONS OF THE BENZENE NUCLEUS CONSIDERABLE CHAPTERS ARE DEVOTED TO THE SYNTHESIS OF BENZENOID DERIVATIVES SUCH AS AROMATIC HALIDES NITRO COMPOUNDS CARBONYL COMPOUNDS ACIDS AND AMINES PHENOLS ALCOHOLS AND NAPHTHALENE THE FINAL CHAPTER INTRODUCES THE CHEMISTRY OF ANTHRACENE PHENANTHRENE AND POLYCYCLIC AROMATIC HYDROCARBONS THIS BOOK IS OF VALUE TO ORGANIC CHEMISTRY STUDENTS

INDUSTRIAL AROMATIC CHEMISTRY

2004

POLYCYCLIC AROMATIC HYDROCARBONS PAHS ARE HIGH MOLECULAR WEIGHT AROMATIC COMPOUNDS CONTAINING TWO OR MORE BENZENE RINGS JOINED TOGETHER IN DIFFERENT WAYS THEY BELONG TO A GROUP OF PERSISTENT ORGANIC POLLUTANTS POPS ARE RESISTANT TO DEGRADATION AND CAN REMAIN IN THE ENVIRONMENT FOR LONG PERIODS WITH THE POTENTIAL TO CAUSE ADVERSE ENVIRONMENTAL AND HEALTH EFFECTS THIS BOOK DISCUSSES THE CHEMISTRY OCCURRENCE AND HEALTH ISSUES RELATED TO PAHS TOPICS INCLUDE PAHS IN FOODS AND HERBAL MEDICINES BIOMONITORING OF PAHS BY PINE NEEDLES THERMODYNAMICS AND PHASE BEHAVIOR OF POLYCYCLIC AROMATIC HYDROCARBONS MIXTURES OCCURRENCE OF POLYCYLIC AROMATIC HYDROCARBONS IN CEPHALOPODS CHILDREN ENVIRONMENTALLY EXPOSED TO PAHS AND AT RISK OF GENOTOXIC EFFECTS ANALYSIS OF PAHS IN ENVIRONMENTAL SOLID SAMPLES THE CHEMICAL AND ELECTRONIC PROPERTIES OF PAHS AND THE DETERMINATION OF PAHS IN DRINKING WATER SOURCES

METHODS OF ANALYSIS BY THE U.S. GEOLOGICAL SURVEY NATIONAL WATER QUALITY LABORATORY

2016-07-29

THIS BOOK IS DESIGNED TO COLLECT AND REVIEW THE RESEARCH COVERING MAIN DIRECTIONS IN INVESTIGATIONS OF AROMATIC NITROSO COMPOUNDS IN LAST DECADES AND TO PRESENT BOTH THE ACADEMIC ASPECTS OF THIS CHEMISTRY AS WELL AS THE OPEN FIELD OF ITS APPLICABILITY THE BOOK IS DIVIDED IN FIVE CHAPTERS THE BASIC STRUCTURAL PROPERTIES OF THE NITROSO AROMATIC MOLECULES ARE DESCRIBED IN THE FIRST CHAPTER THE SECOND CHAPTER IS AN OVERVIEW OF THE METHODS OF PREPARATIONS OF AROMATIC NITROSO AND POLYNITROSO COMPOUNDS INCLUDING CLASSICAL SYNTHETIC METHODS AND SOME NEW PREPARATIVE APPROACHES THE THIRD PART DEALS WITH THE PHYSICO CHEMICAL PROPERTIES OF NITROSO AROMATES AND AZODIOXIDES ITS STRUCTURE CRYSTALLOGRAPHY QUANTUM CHEMICAL CALCULATIONS SPECTROSCOPY TYPICAL REACTIONS AND ESPECIALLY IT IS FOCUSED ON THE DIMERIZATIONS IN THE SOLID STATE IN THE FOURTH CHAPTER IS REPRESENTED ORGANOMETALLIC CHEMISTRY OF NITROSO AROMATIC MOLECULES AND ITS APPLICATIONS IN CATALYSIS THE LAST PART OF THE BOOK DEALS WITH THE BEHAVIOR OF THIS CLASS OF COMPOUNDS IN THE BIOLOGICAL SYSTEMS REACTIONS WITH BIOMOLECULES AND THE USE IN TOXICOLOGY

AN INTRODUCTION TO THE CHEMISTRY OF BENZENOID COMPOUNDS

2013

THIS IS THE ONLY UP TO DATE BOOK ON THE MARKET TO FOCUS ON THE SYNTHESIS OF THESE COMPOUNDS IN THIS PARTICULARLY SUITABLE WAY A TEAM OF EXCELLENT INTERNATIONAL AUTHORS GUARANTEES HIGH QUALITY CONTENT COVERING SUCH TOPICS AS MONODISPERSE CARBON RICH OLIGOMERS MOLECULAR ELECTRONIC WIRES POLYAROMATIC HYDROCARBONS NONCONJUGATED SMALL MOLECULES NANOTUBES FULLERENES POLYYNES MACROCYCLES DENDRIMERS PHENYLENES AND DIAMONDOID STRUCTURES THE RESULT IS A MUST HAVE FOR EVERYONE WORKING IN THIS EXPANDING AND INTERDISCIPLINARY FIELD INCLUDING ORGANIC AND POLYMER CHEMISTS MATERIALS SCIENTISTS AND CHEMISTS WORKING IN INDUSTRY

HANDBOOK OF POLYCYCLIC AROMATIC HYDROCARBONS

2013-03-12

BASE CATALYZED REACTIONS OF HYDROCARBONS AND RELATED COMPOUNDS FOCUSES ON THE USE OF BASES AS CATALYSTS FOR THE CONVERSION OF HYDROCARBONS AND RELATED COMPOUNDS IN ORDER TO EMPHASIZE THE BROAD SCOPE OF BASE CATALYZED REACTIONS EXAMPLES DEALING WITH THE CONVERSION OF NON HYDROCARBONS ARE GIVEN COMPRISED OF 14 CHAPTERS THIS BOOK BEGINS WITH A HISTORICAL OVERVIEW OF BASE CATALYZED CONVERSIONS OF HYDROCARBONS FOLLOWED BY A DISCUSSION ON THE ISOMERIZATION OF OLEFINS ACETYLENES AND ALLENES AS WELL AS THE DIMERIZATION AND OLIGOMERIZATION OF HYDROCARBONS THE READER IS THEN INTRODUCED TO A VARIETY OF REACTIONS INCLUDING THOSE BETWEEN AROMATIC HYDROCARBONS AND OLEFINS AND BETWEEN ALKYLPYRIDINES AND ALKENYLPYRIDINES HOMOGENEOUS CARBON CARBON ADDITION REACTIONS AND REACTIONS OF APROTIC SOLVENTS WITH OLEFINS SUBSEQUENT CHAPTERS EXPLORE CARBON CARBON ADDITION OF OLEFINS WITH MISCELLANEOUS COMPOUNDS ADDITION OF AMMONIA AMINES AND ANILINES TO OLEFINIC HYDROCARBONS HYDROGENATION AND OXYGENATION DEHYDROGENATION AROMATIZATION AND HYDROGEN TRANSFER AND DEHYDRATION OF ALCOHOLS THIS MONOGRAPH WILL BE OF INTEREST TO CHEMISTS

AROMATIC C-NITROSO COMPOUNDS

1983

CARBON RICH COMPOUNDS ARE DEFINED HERE AS CARBON SKELETONS WITH A CARBON TO HYDROGEN RATIO OF 1 WHICH INCLUDES ALL CARBON COMPOUNDS I E CARBON ALLOTROPES THE CURRENT VOLUME COVERS MODERN METHODS FOR THE PREPARATION AND TRANSFORMATION OF POLYCYCLIC AROMATIC COMPOUNDS INCLUDING SUBSTRUCTURES OF CÓO FULLERENE AND NOVEL HIGHLY COMPLEX CYCLOPHANES A GRAPH THEORETICAL TREATMENT PRESENTS A SUBSTITUTION RULE ALLOWING THE DESCRIPTION OF ALREADY EXISTING STRUCTURES AND ALSO THE DEFINITION OF NEW CHALLENGING SYNTHETIC TARGETS IN THE SECOND PART OF THIS VOLUME THE SYNTHESIS AND UNIQUE CHEMISTRY OF OLIGOCYCLIC COMPOUNDS CONSISTING OF FIVE AND SIX MEMBERED RINGS SO CALLED ICENTRO

HANDBOOK OF POLYCYCLIC AROMATIC HYDROCARBONS

2006-05-12

AROMATIC COMPOUNDS ARE A DIVERSE AND FASCINATING CLASS OF COMPOUNDS WITH WIDE RANGING IMPORTANCE THIS BOOK PROVIDES AN OVERVIEW OF THE SYNTHESIS AND REACTIVITY OF AROMATIC COMPOUNDS THE PUBLICATION COVERS THE MANY IMPORTANT REACTION TYPES SUCH AS ELECTROPHILIC AND NUCLEOPHILIC SUBSTITUTION THE REACTIVITY OF BENZYNES ARYLLITHIUM CHEMISTRY AND TRANSITION METAL MEDIATED REACTIONS IT ALSO INCLUDES A DISCUSSION OF THE SYNTHESIS OF HETEROAROMATIC COMPOUNDS POLYCYCLIC AROMATIC COMPOUNDS AND NONPLANAR AROMATIC SYSTEMS THIS BOOK FOCUSSES ON REACTION MECHANISMS AND NUMEROUS EXAMPLES OF APPLICATIONS IN MULTISTEP SYNTHESIS OF AROMATIC COMPOUNDS

CARBON-RICH COMPOUNDS

2012-12-02

THIS TEXT REVIEWS MANY OF THE ASPECTS OF THE CHEMISTRY OF THE AROMATIC HYDROCARBONS AND A CONSENSUS EVALUATION OF THE DATA BY SEVEN OF THE LEADING ATMOSPHERIC SCIENTISTS THE BOOK COVERS TOPICS RANGING FROM THE RELATIVE IMPORTANCE OF THE COMPOUNDS IN OZONE AND HAZE DEVELOPMENT TO METHODS OF ESTIMATING ELEMANTARY RATE COEFFICIENTS BASED ON STRUCTURAL FEATURES OF THE COMPOUNDS TO MECHANISMS OF AEROSOL GENERATION AND ATMOSTPHERIC REACTION OF THE POLYCYCLIC COMPOUNDS TO PHOTOCHEMICAL PROCESSES IT IDENTIFIES FEATURES OF THE AROMATIC HYDROCARBONS REQUIRING FURTHER STUDY AND APPENDICIES GIVE THE STRUCTURAL FORMULAS AND NOMENCLATURE OF THE COMPOUNDS REVIEWED IN THE BOOK

BASE-CATALYZED REACTIONS OF HYDROCARBONS AND RELATED COMPOUNDS

1998-07-20

THE CHEMISTRY OF NONBENZENOID AROMATIC COMPOUNDS II IS A COLLECTION OF PLENARY LECTURES PRESENTED AT THE SECOND INTERNATIONAL SYMPOSIUM ON THE CHEMISTRY OF NONBENZENOID AROMATIC COMPOUNDS STARTING WITH A REVIEW OF THE SYNTHESIS AND STUDY OF SELECT HETEROCYCLES THE BOOK INCLUDES RESULTS AND DEVELOPMENTS IN THIS AREA A SIGNIFICANT PART OF THE REVIEWS OF NONBENZENOID AROMATIC COMPOUNDS IS THE EXAMINATION OF ANNULENESE THAT CONTAIN LARGER HUCKEL SYSTEMS THAN BENZENE THE DEMAND FOR BETTER SYNTHETIC METHODS IN THE STUDY HAS INCREASED AS BRIDGED ANNULENES HAVE BEEN MADE FOR SUITABLE MODELS OF TESTING THEORETICAL CONCEPTS EARLY STUDIES ON SOME NONBENZENOID AROMATIC COMPOUNDS AND THE RELATED PROBLEMS ARE ALSO DISCUSSED A DESCRIPTION OF THE SYNTHESES OF SEVERAL POLYCYCLIC SYSTEMS THAT CONTAIN POTENTIAL CYCLOBUTADIENE RINGS FOLLOWS STUDIES ARE MADE ON $\frac{8}{2}$ OXOHEPTAFULVENE CHEMISTRY AFTER EARLIER CHEMICAL AND PHYSICAL EXAMINATION OF HEPTAFULVENE AND RELATED COMPOUNDS PROVIDED AVENUES FOR RESEARCH SOME ASPECTS OF STRAINED SYSTEMS $\frac{4}{2}$ ANNULENE AND ITS CH ADDUCT ARE REVIEWED IN TERMS OF USEFULNESS WHEN APPLYING A THEORETICAL GUIDE PROVING THE CALCULATIONS AND EXPERIMENTS STUDIES ON HIGHER MEMBERED ANNULENYL IONS BELONGING TO FIVE GROUPS ARE ALSO DISCUSSED RESEARCH CHEMISTS STUDENTS AND PROFESSORS IN CHEMISTRY AND RELATED FIELDS SUCH AS ORGANIC CHEMISTRY WILL FIND THIS COLLECTION USEFUL

CARBON RICH COMPOUNDS I

2022-07-05

PHOTOPHYSICAL AND PHOTOCHEMICAL PROPERTIES OF AROMATIC COMPOUNDS IS THE FIRST BOOK TO COLLECT AND CLASSIFY ALL AVAILABLE QUANTITATIVE DATA ON THE PHOTOCHEMISTRY AND LUMINESCENCE OF AROMATIC COMPOUNDS COMPOUNDS ARE CLASSIFIED BY BOTH SPECTRAL LUMINESCENT E G EXTINCTION COEFFICIENTS ENERGIES AND LIFETIMES OF LOWER EXCITED STATES AND PHOTOCHEMICAL PROPERTIES IN ADDITION ALL OF THE QUANTUM YIELDS AVAILABLE HAVE BEEN COLLECTED THE VARIETY OF PHOTOCHEMICAL REACTIONS OF AROMATICS IS EXAMINED BASED ON EIGHT TYPES OF ELEMENTARY MONOMOLECULAR AND BIMOLECULAR PHOTOCHEMICAL PROCESSES AROMATIC COMPOUNDS ARE GROUPED INTO EIGHT CATEGORIES AND THE BOOK ANALYZES THE POSSIBILITIES OF OCCURRENCE OF ALL TYPES OF ELEMENTARY PHOTOPROCESSES

SYNTHESIS OF AROMATIC COMPOUNDS

2002

THIS BOOK DESCRIBES THE SOURCES OF WATER CONTAMINATION BY PAHS AND THEIR TRANSPORTATION AND FATE IN NATURAL AQUATIC SYSTEMS IT THEN DISCUSSES FROM THE ANALYTICAL CHEMIST S VIEW HOW TO DETERMINE THE PRESENCE OF PAHS IN WATER AND WASTEWATER AND THE CHANGES IN PAH CONCENTRATION DURING TREATMENT PROCESSES THE TEXT EXAMINES THE REMOVAL OF PAHS USING MEMBRANE BIOREACTORS AND ADVANCED SLUDGE PROCESSES HIGHLIGHTING RESULTS FROM BOTH DEMONSTRATION AND FULL SCALE PLANTS IT ALSO EXAMINES THE PRESENCE OF PAHS IN CONVENTIONAL WASTEWATER TREATMENT PLANTS ESPECIALLY IN SLUDGE

THE MECHANISMS OF ATMOSPHERIC OXIDATION OF AROMATIC HYDROCARBONS

2013-10-22

PETROLEUM PETROLEUM TECHNOLOGY PETROLEUM PRODUCTS CHEMICAL ANALYSIS AND TESTING DETERMINATION OF CONTENT AROMATIC HYDROCARBONS DISTILLATION METHODS OF ANALYSIS LIQUID CHROMATOGRAPHY REFRACTIVE INDEX AROMATIC COMPOUNDS DIESEL FUELS CONTAMINANTS

The Chemistry of Nonbenzenoid Aromatic Compounds — II

2004

ENVIRONMENTAL CHEMISTRY IS A RELATIVELY YOUNG SCIENCE INTEREST IN THIS SUBJECT HOWEVER IS GROWING VERY RAPIDLY AND ALTHOUGH NO AGREEMENT HAS BEEN REACHED AS YET ABOUT THE EXACT CONTENT AND LIMITS OF THIS INTERDISCIPLINARY DISCIPLINE THERE APPEARS TO BE INCREASING INTEREST IN SEEING ENVIRONMENTAL TOPICS WHICH ARE BASED ON CHEMISTRY EMBODIED IN THIS SUBJECT ONE OF THE FIRST OBJECTIVES OF ENVIRON MENTAL CHEMISTRY MUST BE THE STUDY OF THE ENVIRONMENT AND OF NATURAL CHEMICAL PROCESSES WHICH OCCUR IN THE ENVIRONMENT A MAJOR PURPOSE OF THIS SERIES ON ENVIRONMENTAL CHEMISTRY THEREFORE IS TO PRESENT A REASONABLY UNIFORM VIEW OF VARIOUS ASPECTS OF THE CHEMISTRY OF THE ENVIRONMENT AND CHEMICAL REACTIONS OCCURRING IN THE ENVIRONMENT THE INDUSTRIAL ACTIVITIES OF MAN HAVE GIVEN A NEW DIMENSION TO ENVIRON MENTAL CHEMISTRY WE HAVE NOW SYNTHESIZED AND DESCRIBED OVER FIVE MILLION CHEMICAL COMPOUNDS AND CHEMICAL INDUSTRY PRODUCES ABOUT HUNDRED AND FIFTY MILLION TONS OF SYNTHETIC CHEMICALS ANNUALLY WE SHIP BILLIONS OF TONS OF OIL PER YEAR AND THROUGH MINING OPERATIONS AND OTHER GEOPHYSICAL MODIFICATIONS LARGE QUANTITIES OF INORGANIC AND ORGANIC MATERIALS ARE RELEASED FROM THEIR NATURAL DEPOSITS CITIES AND METROPOLITAN AREAS OF UP TO 15 MILLION INHABITANTS PRODUCE LARGE QUANTITIES OF WASTE IN RELATIVELY SMALL AND CONFINED AREAS MUCH OF THE CHEMICAL PRODUCTS AND WASTE PRODUCTS OF MODERN SOCIETY ARE RELEASED INTO THE ENVIRONMENT EITHER DURING PRODUCTION STORAGE TRANSPORT USE OR ULTIMATE DISPOSAL THESE RELEASED MATERIALS PARTICIPATE IN NATURAL CYCLES AND REACTIONS AND FREQUENTLY LEAD TO INTERFERENCE AND DISTURBANCE OF NATURAL SYSTEMS

POLYCYCLIC AROMATIC HYDROCARBON MIGRATION FROM CREOSOTE-TREATED RAILWAY TIES INTO BALLAST AND ADJACENT WETLANDS

2012

REACTIONS OF AROMATIC COMPOUNDS

CHEMISTRY RESEARCH AND APPLICATIONS

1983-01-01

INDUSTRIAL ARENE CHEMISTRY EXPLORE THE WIDE ARRAY OF USES FOR AROMATIC HYDROCARBONS IN THIS COMPREHENSIVE REFERENCE AROMATICS ARE A CLASS OF COMPOUNDS NORMALLY BUT NOT EXCLUSIVELY ORGANIC WHICH TEND TO BE PRODUCED AS BY PRODUCTS OF VARIOUS INDUSTRIAL PROCESSES THEIR IMPORTANCE AS PETROCHEMICAL MATERIALS IN THEMSELVES ALONG WITH THE RANGE OF INTER RELATIONS BETWEEN DIFFERENT AROMATIC CHEMICALS CREATES A COMPLEX AND OPPORTUNITY FILLED MARKET FOR AROMATICS INDUSTRIAL ARENE CHEMISTRY PROVIDES A THOROUGH LOOK AT THE CONVENTIONAL TECHNIQUES REQUIRED TO USE AND PRODUCE THESE AROMATIC HYDROCARBONS BEGINNING WITH AN OVERVIEW OF THE GLOBAL AROMATIC MARKET INCLUDING BUT NOT LIMITED TO MANUFACTURERS MARKETS OF BTX AND DOWNSTREAM FUNCTIONAL AROMATICS AROMATICS DERIVED FROM RENEWABLE SOURCES AND ECONOMIC FORECASTS THE BOOK WILL ALSO EXPLORE THE IMPACT SHIFTING ENVIRONMENTAL FACTORS WILL HAVE ON THE FUTURE OF AROMATIC CHEMISTRY THE TEXT FURTHER EXPLORES BTX PRODUCTION PROCESSES DIFFERENTIATED ACCORDING TO THE RAW MATERIALS USED IMPORTANTLY THIS WILL ESTABLISH THE IMPORTANCE AND GROWTH OF THE BIOBASED CHEMICAL INDUSTRY INDUSTRIAL ARENE CHEMISTRY READERS WILL ALSO FIND CASE STUDIES THAT DESCRIBE MAJOR ELEMENTS OF SPECIFIC TECHNOLOGIES PROTOTYPED BY CONTRIBUTORS COMPANIES AS PART OF ONGOING MARKET DEVELOPMENT EFFORTS PROCESS CHAPTERS THAT INCLUDE SUMMARIES OF THE CONVENTIONAL TECHNIQUES AND A MORE DETAILED DISCUSSION OF RECENT HIGH IMPACT STUDIES RECENT ADVANCES IN CONVENTIONAL AROMATIC REACTIONS INCLUDING ALKYLATION ACYLATION AND CARBOXYLATION HYDROGENATION REDUCTION OXIDATION NITRATION AMINATION SULFONATION AND HALOGENATION INDUSTRIAL ARENE CHEMISTRY IS A USEFUL REFERENCE FOR CHEMISTS AND CHEMICAL ENGINEERS WHO WORK WITH AROMATICS

POLYCYCLIC AROMATIC HYDROCARBONS

1992-06-10

SPECTROMETRIC NOMENCLATURE AND THE ABSORPTION LAW FOR SOLUTIONS INSTRUMENTS AND EXPERIMENTAL PROCEDURE THEORETICAL ASPECTS OF ULTRAVIOLET ABSORPTIONS SPECTRA THE USE OF ULTRAVIOLET SPECTRA IN QUALITATIVE ANALYSIS QUANTITATIVE ANALYSIS

PHOTOPHYSICAL AND PHOTOCHEMICAL PROPERTIES OF AROMATIC COMPOUNDS

2018-10-08

BIRCH REDUCTION SEE REVIEWS 15 is the name given to the reaction of unsaturated organic compounds with alkali metals and alcohols in liquid am monia this method was first used for aromatic compounds in 1937 by wooster 6j who showed that benzene and its derivatives are reduced by sodium in Liq uid ammonia in the presence of an alcohol while this reaction does not take place in the absence of an alcohol however the general recognition and broad application of this reaction was achieved only after a series of investigations by birch published from 1944 onwards 7_J since the presence of an alcohol in the reaction medium is not indispen sable for polycyclic aromatic systems the present review includes only derivatives of the simplest aromatic compounds benzene and naphthalene 1 reaction mechanism the most probable mechanism of birch reduction adopted by the major ity of workers in this field 4812 can be represented by the following stages v i nh i t 13 a e nha nh 3 roh ll nha a h 4 h h 5 ro q 110m nha nh q h h ii ji h h h h x h m l

WASTEWATER TREATMENT

2006-12-29

NEW YORK WILEY C1980

Petroleum Products. Determination of Aromatic Hydrocarbon Types in Middle Distillates. High Performance Liquid Chromatography Method with Refractive Index Detection

1985-03-31

SPECTRAL ATLAS OF POLYCYCLIC AROMATIC COMPOUNDS

1973

CERTAIN POLYCYCLIC AROMATIC HYDROCARBONS AND HETEROCYCLIC COMPOUNDS

2013-11-11

PAHS AND RELATED COMPOUNDS

1972-01-01

REACTIONS OF AROMATIC COMPOUNDS

2023-03-17

INDUSTRIAL ARENE CHEMISTRY

1951

ULTRAVIOLET SPECTRA OF AROMATIC COMPOUNDS

2012-12-06

BIRCH REDUCTION OF AROMATIC COMPOUNDS

1980

THE BIOSYNTHESIS OF AROMATIC COMPOUNDS

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