Synthesis Of Some New Sulfonamide Derivatives Of Expected

This book highlighted the methods used for the synthesis of some new pyrimidine compounds. The reactivity of pyrimidine and their synthetic importance were investigated. It also reported a good introduction for the literature survey of the chemistry of pyrimidine compounds. In this context, we reported herein the behavior of simple reagents in order to obtain some new pyrimidine ring systems and its reactivity towards different reagents for the constructions of heterocyclic derivatives containing a pyrimidine moiety. The methods of synthesis and the synthetic mechanisms of the aforementioned reactions were well presented and the structures of these compounds were assessed by analytical and spectral data. This book represents the ultra violet (UV) studies including synthesis and characterization of novel azobenzenesulfonamide dyes, the effect of solvent, effect of substituents and the effect of pH. The methods, analytical and spectral data of the investigated compounds were included.

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The use of antibiotics in the treatment of various infections of humans caused by microbes has been a great success. Over the past years there has been an increase in the resistance of microorganisms against a large number of drugs. Keeping in view the biological activity and medicinal importance of sulfonamides, new sulfonamides are being synthesized. This book describes the synthesis of N-benzyl-4-methylbenzenesulfonamide, its N-alkylated derivatives and evaluation of their anti-microbial activity. N-benzyl-4- methylbenzene sulfonamide was synthesized by the condensation of benzyl amine with p-toluene benzenesulfonylchloride. The solvent used for this reaction was water.N-alkylated derivatives were prepared by reacting N-benzyl-4-methylbenzenesulfonamide with different alkylating agents and sodium hydride using DMF as solvent. The synthesized compounds were characterized by different techniques like X-ray crystallography, FT-IR, Elemental analyzer and melting point. Evaluation of anti-microbial activity was carried out by employing deep well method against different bacterial strains.The synthesized compounds exhibited appreciable anti-microbial activity.

Schiff bases are the compounds containing azomethine group (-HC=N-) formed by condensation of a primary amine with an active carbonyl compound. Sulfonamide derivatives have been subjected through studies where a wide diversity of those derivatives have been prepared and used in various biological and pharmacological fields. Schiff bases are the among the most studies sulfonamide derivatives which have been used for several biological application. These type of derivatives are very important because of their varied structure and biological activities. In continuation of our work on sulphonamide derivatives, The present work is oriented towards synthesized new Schiff bases derived from4-(2,4-dichlorophenyl)-6-(6-methylnaphthalen-2-yl)pyrimidin-2-amine and sulphonamide derivatives were synthesized by condensing chalcon with Guanidine Hydrochloride.

Antimicrobial resistance is now threatening the management of infections such as pneumonia, tuberculosis, malaria and AIDS.So at present scenario there is a great need for developing new anti-infective agents.Heterocycles are an inescapable and integral feature of numerous diverse branches of chemistry.The presence of heterocycles in all kinds of organic compounds of interest in biology, pharmacology, optics, electronics, material sciences.Among the heterocyclic compounds, five member heterocyclic moieties fused with aromatic ring system with various heteroatom like N, S, and O have possess wide spectrum of pharmacological activity.a variety of Schiff bases derivatives of sulfonamides have been successfully synthesized in appreciable yields and screened in vitro for their antimicrobial activities against both strains of Gram-positive and Gram-negative bacteria. Moreover, structure-activity relationship studies revealed that the 4-chloro benzaldehyde along with sulfamethoxazole Schiff base is more active as antimicrobial agent as compared to 2-chloro and 3-bromo derivatives but other derivative like salicyldehyde, anisaldehyde also possesses moderate activity.

Synthesis of Some N'-substituted Derivatives of 2-aminopyrimidine-5-sulfonamideSynthesis of Some Sulfonamide Derivatives for Use as Selective Chelating Agents And/or Antitumor DrugsSynthesis and Spectral Characterization of Novel Organic CompoundsNovel Organic Compounds of Pyrrole Derivatives, Schiff's Bases, Urea/Thiourea and Carbamate/SulfonamidesLAP Lambert Academic Publishing

In the area of organic chemistry one major challenge we are currently faced with is how to assemble potentially useful molecules in new ways that generate molecular complexity and in sequences that are as efficient as possible. Our efforts in this regard, specifically for the preparation of amino containing compounds incorporating an aromatic ring, are described in this doctoral thesis. We discovered an interesting regioselectivity in an intramolecular Heck reaction, which we studied for a series of substrates that are unbiased in terms of the size of the newly formed ring, where very high levels of selectivity in relation to the new carbon-carbon bond are typically observed. DFT calculations were performed to attempt to shed light on the reaction sequence. This regioselective Heck reaction, combined with the reductive removal of the temporary amino-protecting group, allowed us to synthesize the Sceletium alkaloids: mesembrane, mesembranol and mesembrine.

In the present study, various N-alkyl substituted derivatives of benzene-sulfonamide were synthesized. In the first step, benzene sulfonyl chloride was treated with 2-amino-2-methyl-1-propanol afforded N-(2-hydroxy-1,1-dimethylethyl)-benzenesulfonamide and in next step this parent compound was reacted with alphatic halides to produced different N-alkylation substituted derivatives. Oxadiazole are very important compounds that are strongly biologically active. In this study the parent compound 5-benzyl-1,3,4 oxadiazole-2-thiole was synthesized by hydrazinolysis of ethyl phenylacetate followed by reaction with carbon disulfide. Further the parent compound oxadiazole was treated with different aliphatic alkyl groups to produce eight different S-substituted derivatives of oxadiazole. All these synthesized derivatives of sulfonamides and oxadiazoles were characterized by melting point, IR, EI-MS, 1H-NMR and X-ray crystallographic techniques. These compounds were screened.to evaluate their biological activity and only sulfonamides showed inhibition potentials against butyrylcholinesterase.

This thesis deals with the Ti(III) catalyzed synthesis of exocyclic allenes and the development of new titanocene complexes. It is structured in six chapters: Chapter 1 is a general introduction about the generation and reactivity of [TiCp2Cl]. A review about the different [TiCp2Cl] catalyzed or promoted reactions reported to date, is included. Chapter 2 is divided in introduction and results and discussion. In the introduction, an overview about the promoted or catalyzed methodologies, already available for the synthesis of ?-allenols, is included. Results and discussion section is sub-divided in other two parts. The first one describes the synthesis of carbocyclic or nitrogen heterocyclic precursors bearing a propargyl halide and a carbonyl group. Next, the [TiCp2Cl] catalyzed synthesis of exocyclic allenols is studied. Additionally, a mechanistic study through deuterium incorporation and reaction of secondary propargyl halide precursors is performed. In the second part, the preparation of oxygen precursors and its cyclization are studied. In chapter 3, there is an introduction about enantioselective syntheses using chiral titanocene catalysts. The results and discussion section deals with the enantioselective cyclization of some of the precursors previously prepared using precatalyst (R,R)-ethylenebis(4,5,6,7-tetrahydro-1-indenyl) titanium(IV), also known as Brintzinger

complex. A formal synthesis of the alkaloid (•})-stemoamide is carried out in chapter 4, being the key step for this synthesis the generation of an ?-allenol derivative through a [TiCp2Cl] catalyzedcyclization. This chapter is also divided in an introduction, in which a review about the different methods of synthesis of stemoamide are included, and results and discussion. Chapter 5 compiles the project that I have developed during my research stay at University of Bonn, under the supervision of Prof. Gansauer. The target of this project was to develop an azide functionalized short linker titanocene derivative with the aim of linking it to a surface by click chemistry. The chapter is divided in introduction and results and discussion. In the introduction the different methodologies for the synthesis of titanocene derivatives are reviewed. This section also includes the background in which this project is based. Chapter 6 includes the experimental part. In this chapter all reactions performed during the development of this thesis, as well as the spectroscopic characterization of compounds, are compiled.

Title of the book is "Synthesis and Spectral Characterization of Novel Organic Compounds of Pyrrole Derivatives, Schiff's Bases, Urea/Thiourea and Carbamate/Sulfonamides."This book is divided into six chapters, they are Chapter-1: General Introduction Chapter-2: Synthesis of Novel Carbamate, Sulfonamide Derivatives of (2'-(1H-Tetrazol-5-yl)-biphenyl-4-yl) methanamine and Their Antibacterial, Antifungal Activities. Chapter-3: Synthesis and Antimicrobial Activity of NovelUrea/Thiourea Derivatives Chapter-4: Synthesis and Antimicrobial Activity of new Carbamate and Sulfonamide derivatives Chapter-5: A Facile, Catalyst- Free Green Synthesis for Schiff's Bases in Aqueous Medium using Ultrasonic Irradiation Conditions and Their Antimicrobial Activity Chapter-6: Synthesis of New Sulfonamide Derivatives of Tryptamine and Their Antimicrobial Activity and Summary

This book presents a comprehensive survey of 300 organic chemical reactions involving sulfonamides. It is ideal for the purposes of learning the chemistry of sulfonamides, synthesis planning, highly-profitable pharmaceutical and industrial research and retrosynthetic analysis of sulfonamides and sulfonamide derivatives.

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"Commercially available aromatic diamines such as 4,4'-diamino diphenyl ether and 4,4'-diamino diphenyl methylene were treated with N-acetylsulf anilyl chloride to give the amino-sulfonamido-acetanilide derivatives. These derivatives were treated with 6 M hydrochloric acid to give the diamine monomers containing a preformed sulfonamide linkage. These monomers were polymerized with various diacid chlorides using a low temperature solution technique. Polymerizations using the Yamazaki reaction have also been investigated. The polymers obtained were characterized using infrared spectroscopy, thermal gravimetric analysis and differential scanning calorimetry."--Abstract.

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