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KEY WORDS: Omega fatty acids, classification, source, uses

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Key words: Prodrug, delivery system

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KEY WORDS: Trihexyphenidyl Hydrochloride, Ion pair extraction method , bromocresol green.

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KEY WORDS: Simultaneous Estimation; RP-HPLC; Omeprazole; Ondansetron;

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KEY WORDS: Paracetamol, Domperidone, Spectrophotometric estimation.

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KEY WORDS: Curcumin, Piperine, HPLC, food analysis.

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The method was validated for accuracy, specificity, limit of quantification, limit of detection, robustness and stability. The results showed that proposed method is successfully applied for the quantitative determination of Metoprolol succinate in bulk drugs.

KEY WORDS: Reverse phase liquid chromatography, Metoprolol succinate, HPLC, specificity, validation

- **Synthesis and Evaluation of Some New Thiazolidinedione Derivatives for Their Antidiabetic Activities**
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KEY WORDS: Thiazolidinedione, antidiabetic activity, microwave assisted synthesis.

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KEY WORDS: Amlodipine besylate; Olmesartan medoximil; zero crossing method; tablet dosage form.

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KEY WORDS: HPTLC, gallic acid, *Nymphaea stellata* willd.

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KEY WORDS: *Ageratum conyzoides*, Wound Healing

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KEY WORDS: Pseudoephedrine sulphate, Desloratidine, Nabumetone, RP-HPLC,

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KEY WORDS: Paracetamol; Codeine phosphate; UV derivative spectrophotometry; tablets.

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KEY WORDS: *Acalypha indica*, antioxidant, NO Scavenging activity

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KEY WORDS: Synthesis, Ethylacetoacetate, Pyrazolones

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KEY WORDS: Esomeprazole, UV Spectrophotometry, Derivative Spectroscopy, Area Under Curve.

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KEY WORDS: Thiazolidinone, Pyridine, Antidiabetic activity.

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KEY WORDS: Benzimidazole, Antibacterial, Antifungal, Antitubercular, Phenoxyethyl.

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KEY WORDS: UV spectrophotometry, Idebenone

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(¹H-NMR, ¹³C-NMR and Mass). All the compounds have been screened for their antifungal activity and their antibacterial activity against various gram +ve and gram -ve bacteria.

KEY WORDS: 4-diethylamino-2-hydroxybenzaldehyde, azetidin-2-one, Microwave method, antimicrobial activity.

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KEY WORDS: *Memecylon umbellatum*, n-hexane extract, roots, fatty acids.

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KEY WORDS: *Moringa oleifera*, *Vitex negundo*, Anthelmintic activity, Piperazine citrate.

- **Simultaneous UV Spectrophotometric Method for Estimation of Losartan Potassium and Amlodipine Besylate in Tablet Dosage Form.**
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KEY WORDS: Losartan Potassium, Amlodipine Besylate, λ_{max} , Simultaneous equation method, Q analysis

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Models for predicting solubility of drugs in solvent mixtures have an important application in drug formulation. The study of solubility behaviour of celecoxib in solvent blends and individual solvents ranging from non-polar to highly polar is essential. The total solubility parameter and partial solubility parameters explain the interactions of the drug. The solutions containing excess drug were shaken in a water bath for 72 h at 25°C. The solutions attained equilibrium were then filtered and analysed. The extended Hildebrand solubility approach was used to process the solubility data of celecoxib. For understanding the solute-solvent interactions, partial solubility parameters concept was utilized. A multiple regression method using the extended Hansen's partial solubility parameters was applied to verify the solubilities of celecoxib in polar and nonpolar solvents and to predict its solubility in untested solvents. The three parameter approach and the Flory-Huggins size correction term 'B' give the prediction of solubility with correlations up to 92%. The four-parameter approach give appreciable correlations (96%). There is a considerable evidence to suggest that celecoxib is soluble in solvents, through acid - base parts of molecule. A criterion of the ideal mole fraction solubility intersecting the mole fraction solubility curve is proved to be successful in deciding the solubility parameter of celecoxib. The total solubility parameter of celecoxib determined from the different methods of data analysis is finally assigned at 11 H. The partial solubility parameters obtained from four-parameter approach give insights into the interaction capability of celecoxib and are consistent with its chemical structure.

KEY WORDS: Celecoxib; Solubility parameter; Extended Hildebrand approach; Extended Hansen's approach.

- **Synthesis and Biological Evaluation of Some Substituted Amino Thiazole Derivatives**
SR Pattan, N S Dighe, SA Nirmal, AN Merekar, DS Musmade and RB Laware.....196

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Thiazoles and their derivatives exhibit a wide variety of biological activities like antidiabetic, anti-inflammatory, anti-convulsants etc.

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KEY WORDS: Crystal habit, crystallization techniques, surfactants and aspirin.

- **A Simple and Sensitive HPTLC Method for Estimation of Pioglitazone In Bulk and Tablet Dosage Forms**
Meeta A Jiladia, SS Pandya2, and Viidyasagar G.....207

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KEY WORDS: Pioglitazone, toluene, methanol, ammonia, HPTLC

- **Simultaneous Estimation of Lansoprazole and Domperidone in Combined Dosage Form by RP-HPLC**
Bhavna Patel, Zarna Dedania, Ronak Dedania, Chetan Ramolia2, G Vidya Sagar and Mehta RS3.....210

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The mobile phase used was a combination of Acetonitrile: Methanol (81:19). The detection of the combined dosage form was carried out at 280 nm and a flow rate employed was 1 ml/min. The retention time for lansoprazole and domperidone has found to be 2.8 and 1.57 min respectively. Linearity was obtained in the concentration range of 8-24 µg/ml of lansoprazole and 8-24 µg/ml of domperidone with a correlation coefficient of 0.9977 and 0.9992. Detector consists of photodiode array detector; the reversed phase column used was RP-C₁₈ (2.27µm size, 250 mm⁴4.6 mm i.d.) at ambient temperature. The developed method was validated according to ICH guidelines and values of accuracy, precision and other statistical analysis were found to be in good accordance with the prescribed values. Thus the proposed method was successfully applied for simultaneous determination of domperidone and lansoprazole in routine analysis.

KEY WORDS: Simultaneous Estimation; RP-HPLC; Lansoprazole(LAN); Domperidone(DOM)

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ABSTRACT

The present work was aimed to study the partition coefficient and adsorption of Fluconazole. Fluconazole is an antifungal drug used in treatment of superficial and systemic fungal infections. It undergoes extensive hepatic first pass metabolism. Adsorption studies were performed on hydrophobic adsorptives viz. activated charcoal and Talc I. P. at temperatures 25, 35 and 45°C. The partition studies were carried using different lipophilic solvents viz. dichloromethane, dichloroethane, hexanol and *n*-octanol at constant temperature of 25°C. The partition coefficient was determined by shake flask method. Adsorption studies on talc and activated charcoal follow both the Freundlich and the Langmuir adsorption isotherms suggesting possibility of mono as well as multilayer physical adsorption revealing poor oral bioavailability. Partition studies indicates that increase in carbon chain length of lipophilic solvent decreases partition coefficient of the drug. Closeness of partition coefficient values to unity suggests possibility of drug to cross the biological membrane of the microorganism to act locally. From adsorption and partition study it can be presumed that Fluconazole may be formulated in topical dosage form for local effects to improve its therapeutic actions.

KEY WORDS: Fluconazole, adsorption, adsorption isotherms, partition coefficient

- **Isolation, Characterisation and Screening of Antioxidant Activity of the Roots of Syzygium cuminii (L) Skeel**

Nikhata F, D.Satynarayana, and Subhramanyam EVS.....218

ABSTRACT

We present here in vitro antioxidant activity of butanolic extract of the root's of Syzygium cuminii (L) skeel belonging to the family myrtaceae. Antioxidant activity was determined by two in vitro methods- reducing power and DPPH. Activity-guided fraction leads to the isolation of three constituents; the results are compared with standard ascorbic acid. The further study is in progress to isolate these constituents in higher quantity and to screen them for antidiabetic and antioxidant activity in pure isolated chemical constituent.

KEY WORDS: Butanolic, Syzygium cuminii(L) skeel, Myrtaceae, antioxidant, antidiabetic

- **Development and Validation of UV Spectrophotometric Method of Cefuroxime Axetil in Bulk and Pharmaceutical Formulation.**

Santosh Shelke, Santosh Dongre, Amit Rathi, Dinesh Dhamecha, Saifee Maria and Mohd Hassan G Dehghan.....222

ABSTRACT

A simple, accurate, cost effective and reproducible spectrophotometric method has been developed for the estimation of cefuroxime axetil in bulk and pharmaceutical dosage form. UV spectrophotometric method, which is based on measurement of absorption at maximum wavelength 281nm. The percentage recovery of cefuroxime axetil ranged from (99.97 ± 0.3969) in pharmaceutical dosage form. The developed method was validated with respect to linearity,

accuracy (recovery), precision and specificity. Beers law was obeyed in the concentration range of 4-28 μ g/ml having line equation $y = 0.0346x + 0.0566$ with correlation coefficient of 0.9999. Results of the analysis were validated statistically and by recovery study.

KEYWORDS: UV spectrophotometry, cefuroxime axetil

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