

WORD UTTERANCE BASED TECHNIQUE FOR SEARCH IN NEWS VIDEOS

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Abstract

Large amount of video data is generated on day-to-day basis by professionals belonging to industry like entertainment, news channels, advertisement as well as naive users. Video search engines are required to find out the useful information out of the video data collected. Apart from searching of videos and irrespective of the underlying search technique used, considerable user efforts are lost in browsing of video search engine results, as it is influenced by length of video returned in search result. Search within the video can reduce this effort. In this paper current approaches to video repository search with their issues have been discussed. A technique based on word utterance has been proposed for easier browsing of videos in search result related to news videos. This technique takes into consideration the time to utter a word by the news-reader and then calculates the frame number at which that word have been uttered. From the calculated frame number, video can be played back.

KEYWORDS : *Video repository search, content based search, searching speech media, spoken document retrieval, word Spotting*

SMARTPHONES AND MOBILE YOUTH CULTURE AMONG THE ADOLESCENT MALES: A CASE STUDY OF KHANYARA VILLAGE, DISTRICT KANGRA, (HIMACHAL PRADESH).

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Abstract

The Mobile Web refers to access to the world wide web, i.e. the use of browser-based Internet services, from a handheld mobile device, such as a smartphone, feature phone, tablet computer, connected to a mobile network or other wireless network. The present study deals with social impact analysis and penetration of mobile internet (smartphones) among youth of Khanyara village, Dharamshala, Himachal Pradesh. The youth market today is an extremely technology-savvy one, a segment of society that has been active in transforming the application and use of digital technologies in unprecedented ways. This market segment here defined as the range of teenagers and young adults between the ages of 14 and 18 are more comfortable with using the Internet, building websites, communicating via mobile phones and playing with digital gadgetry than any previous generation. Mobile phones are (and will be) the access device of choice to voice/data/Internet for most of the world's population. But is this the same in case of rural youth? The paper focuses on exploring factors and trends among the rural adolescents between age 14-18 years in buying and using smartphones and its impact on their lives.

Keywords: *Mobile internet, smartphones, changes in social behavior.*

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DISTYLY IN *LEPTODERMIS LANCEOLATA* WALL. (RUBIACAE).

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Abstract

Leptodermis lanceolata Wall a woody and perennial shrub exhibits distyly with reciprocal herkogamy. The stigma showed dimorphism in papillae size with longer pin papillae and shorter thrum papillae. Pollen dimorphism though not pronounced was observed in size with smaller pin pollen and larger thrum pollen. The pin and thrum plants showed isopleny in the natural population indicating out breeding nature of the species. The two morphs consequently are demonstrated to be self-incompatible and cross-compatible. Pollinators were bumblebees, honey bees and thrips. The presence of reciprocal herkogamy, simultaneous anthesis, synchronized anther dehiscence and concurrent stigma receptivity with overlapping period of the activity of pollinators on randomly distributed pin and thrum plants lead to effective and efficient pollinations. This results into adequate seed formation due to successful legitimate pollination despite the presence of distylic self-incompatibility. The species is therefore ecologically adapted to its wide range of distribution in Himalayas.

Key words: *Distyly, Isopleny, Pin, Reciprocal herkogamy, Thrum.*

AN INVENTORY OF GEOMETRID MOTH OF SAIRIGHAT IN HIMACHAL PRADESH (LEPIDOPTERA: GEOMETRIDAE)

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Abstract

151 species belonging to 98 genera under subfamilies Desmobathrinae, Ennominae, Geometrinae, Larentinae and Sterrhinae of family Geometridae were collected and identified between the years 2000 to 2007. In this communication, first reference, material examined and distribution of all the dealt with species has been cited.

Key Words: *Geometridae, Sairighat, Himachal Pradesh*

:3:

NOTES ON THE OCCURRENCE OF KOBRESIA MYOSUROIDES (VILL.) FIORI(CYPERACAEAE) IN INDIA

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Abstract

Kobresia myosuroides (Cyperaceae), an alpine sedges native to China, Japan, Kazakhstan, Russia Korea, Mongolia and North America is being reported for the first time from India. Nomenclature, description, phenological data, habit, habitat, distribution and illustrations are given in this paper.

Keywords: *Cyperaceae, Kobresia, Species, Taxonomy*

REVISITING TEXTURE FOUR ZERO QUARK MASS MATRICES

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Abstract

In the light of a recent analysis, which claims to rule out the Fritzsch like texture four zero quark mass matrices unless one accepts large rotations in the diagonalizing transformations, we have attempted to carry out a detailed investigation of these mass matrices giving full variation to all the free parameters. The condition of 'natural hierarchy' among the elements of the mass matrices has been imposed in order to avoid ne tuning. Interestingly, our analysis reveals that the Fritzsch like texture four zero quark mass matrices are compatible with the present quark mixing data even without incorporating large rotations in the diagonalizing transformations of these mass matrices.

Keywords: *Fermion mass matrices, texture zeros, naturalness.*

WEAK BASIS TRANSFORMATIONS AND TEXTURE FIVE ZERO QUARKS MASS MATRICES

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Abstract

In view of some recent attempts to construct texture specific mass matrices using the facility of weak basis transformations, we carry out a detailed analysis pertaining to the two possibilities of Fritzsch-like structure as well as a non Fritzsch-like structure pertaining to texture five zero quark mass matrices which have recently been claimed to be viable ones. Interestingly, we find that both, the Fritzsch-like as well as the non-Fritzsch like texture five zero quark mass matrices, fail to reproduce the latest quark mixing data.

Keywords: Mass matrices, texture zeros, weak basis transformations.

ROLE OF STOP-WORDS REMOVAL AND STEMMING IN INFORMATION RETRIEVAL

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Abstract

With the emergence of enormous resources of information, it is required to build methods which would retrieve the most relevant information according to needs. An information retrieval (IR) system helps a user to find the most relevant documents from a huge document collection that would satisfy the user's information needs. IR systems are now widely being used to help million of people in areas like business, web search engines and education. Searching the large document collections available on the internet or databases is a challenging task and hence there is a need for effective retrieval of relevant information. Stop-words removal and stemming operations have been used as pre-processing steps for effective retrieval. Stop words are the words which carry little meaning to actual content. Stemming is performed to convert the words to their root form. This research paper discusses about the information retrieval system and effect of stop-words removal and stemming on information retrieval. Experiments have been carried out on the PDF lecture notes of NPTEL repository. The results have shown that the stop-words removal and stemming operation save memory by minimizing the size of data which would be further used by IR system for efficient documents retrieval.

Keywords: Information Retrieval, Stop-words, Stemming, Pre-processing, Suffix.

:5:

A SYSTEMATIC ACCOUNT OF CHLOROCOCCALES FROM BULANDSHAHR, UTTAR PRADESH

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Abstract

The present communication deals with morphotaxonomic enumeration of 25 taxa of Chlorococcalean algae collected from different localities situated in and around Bulandshahr district of Uttar Pradesh during 2012-2013. Notes on forms showing slight variations in their morphological attributes have also been given. All these taxa are being recorded for the first time from the study area.

Key words: *Fresh water algae, Chlorococcales, Habitat, Morphotaxonomy, Planktonic.*

AZADIRACHTA INDICA EXERTS PHYTOPREVENTIVE ACTION IN INITIAL STAGES OF SKIN AND HEPATIC TUMOURIGENESIS

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Abstract

Azadirachta indica leaf extract is documented to have anticancer potential against various experimental cancer models. This study was carried out to investigate the role of Aqueous *Azadirachta indica* leaf extract (AAILE) during initial stages of DMBA/TPA induced skin carcinogenesis and NDEA induced hepatic carcinogenesis in mice. Histopathological studies indicate that AAILE administration for ten weeks inhibited the carcinogenic changes as evidenced by lesser epidermal proliferation in skin and low grade dysplasia in liver when compared to their control carcinogenic counterparts with higher epidermal proliferation and high grade dysplasia respectively. These changes were associated with differential modulation of the antioxidant defense system altering the redox milieu of the cell. *In-vitro* assays revealed that AAILE exhibited concentration dependent free radical scavenging potential which may be associated with its antioxidant activity. The modulation of the antioxidant defense system may be responsible for its anticancer potential in initial stages of hepatic and skin tumorigenesis. Thus it may be concluded that AAILE exhibited anticancer activity in initial stages of carcinogenesis by modulation of antioxidant defense system.

Keywords: *Aqueous Azadirachta indica leaf extract, antioxidant defense system, skin cancer, hepatic cancer*

BOG SEDGES OF INDIA

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Abstract

Bog Sedges (*Kobresia* species) are the temperate to alpine sedges which are comparatively less known in India. Present micromorphotaxonomic studies revealed the occurrence of 42 species within present political boundaries of India. These are enumerated in this communication. Three new species (*Kobresia brandisii* Jana & R.C.Srivast., *Kobresia paramjiti* Jana et al. *sp.nova* and *Kobresia vibhae* Jana & R.C.Srivast. *sp.nova*) are described and illustrated and one lectotypification is proposed. SEM images of nuts and nut-surface have been found to be quite useful in distinguishing the species and solving the taxonomic-problems.

Present studies on taxonomic revision of genus *Kobresia* Willd. (Cyperaceae) were taken up under "Flora of India Project." Scrutiny of the literature and micromorphotaxonomic studies of the specimens collected during field surveys and the specimens housed in Indian Herbaria and also the digital images of the type specimens from foreign herbaria, revealed the occurrence of 42 species of *Kobresia* Willd. within present political boundaries of India.

OLEAMIDE SYNTHESIS IN AN ORGANIC SOLVENT USING A GELATIN-CO-PVA HYDROGEL-IMMOBILIZED COMMERCIAL LIPASE (LIPOLASE 100L)

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Abstract

Oleamide was synthesized by using a gelatin-co-PVA hydrogel-immobilized commercial lipase (Lipolase 100L) in dimethylsulfoxide (DMSO) as a solvent system. The immobilization of lipase done by surface adsorption onto hydrogel resulted in 70% binding of the protein. The gelatin-co-PVA hydrogel-bound lipase was evaluated for its hydrolytic activity towards various *p*-nitrophenyl acyl esters of varying C-chain length. The bound lipase showed maximum activity with *p*-nitrophenyl palmitate (C-16) at pH 8.5 and temperature 75°C. The amidation of ammonia (3 M) and oleic acid (1 M) by hydrogel-bound lipase was carried out at 75°C for 24 h under shaking (120 rpm). The optimization of various reaction conditions like reactants concentration(s), biocatalyst concentration, reaction time, and reaction temperature for the synthesis of oleamide in DMSO were consecutively studied. Reaction system comprising oleic acid and ammonia 1 M: 3 M, respectively in DMSO yielded 64% of oleamide using 30 mg of hydrogel-immobilized biocatalyst at 75°C in 24 h under optimized reaction conditions. White crystals of oleamide were obtained and tested for the presence of an amide by a confirmatory test (Hydroxylaminehydrochloric acid).

Keywords: Lipase, immobilization, amidation, hydrogel, oleamide synthesis.

SCREENING OF SOME THIOCARBAMATE METAL COMPLEXES FOR ANTIBACTERIAL ACTIVITIES
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Abstract

The objective of this study was to determine the antibacterial activities of a few metal complexes (Cu, Mn and Zn) of thiocarbamates against a few selected pathogenic bacterial strains (*Salmonella typhi*, *Salmonella typhimurium*, *Salmonella paratyphi*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Staphylococcus citreus*, *Escherichia coli*, *Shigella flexneri*, *Proteus mirabilis*, *Klebsiella pneumoniae* and *Enterobacter faecalis*). Amongst all the thiocarbamate metal complexes tested in the present study, the metal complex Zn-thiocarbamate appeared to possess strong anti-bacterial activity as reflected by a relatively lower mean MIC (329.6 µg/ml) towards most of the pathogenic bacterial strains including *E. coli*. Therefore, the Zn-thiocarbamate was selected for further explored to study its antibacterial activity on the *E. coli* cells *in vitro*. Moreover, all the tested metal thiocarbamate complexes appeared to be quite effective against *E. coli* with MIC values in the range of 62.5 to 125 µg/ml. ZnSO₄ alone when supplemented in the nutrient broth at low concentration *i.e.*, 0.2 % and 0.5 % (w/v) slightly supported the growth of *E. coli*, but at a concentration of 1% (w/v) it slightly inhibited the growth of *E. coli* in comparison to control (broth without ZnSO₄). The SDS-PAGE analysis of the lysates of the *E. coli* cultured in the presence of Zn-thiocarbamate complex showed absence of a protein band of 27 kDa that was present in the control cells lysate (cell grown in without thiocarbamate complex). Thus the Zn-thiocarbamate when included in the broth at concentration of **100 µg/ml or 125 µg/ml lead to inhibition of the synthesis of an intracellular protein of 27 kDa.**

Keywords: Zn-thiocarbamate, antibacterial activity, MIC and SDS-PAGE.