CHAPTER 62

ZOOLOGY

Doctoral Theses

502. BARIK (Tapan Kumar))
Use of Nuclear Techniques in Establishing Entomopathogenic Nematode, Steinernema Glaseri (Rhabditida : Steinernematidac) For the Suppression of Spodoptera Litura (Fabr.) (Lepidoptera: Noctuidae) in Interaction with other Control Tactics.
Supervisor : Dr. R. K. Seth
Th 16540

Abstract

Evaluates the bioefficacy of entomopathologenic nematode, Steinenema glaseri cultured in radio-sterilized host, in integration with different control tactics towards management of this serious pest, spodoptera litura in order to established EPNs as potential biocontrol agent using nuclear techniques.

Contents

503. DIVYA

Expression of Histone H3-Specific Novel Recombinant Protease and Characterization of Its Inhibitor From Chicken Brain.

Supervisor : Prof. Madan Mohan Chatuvedi

Th 16396

Abstract

Deals with an exhaustive review of literature ragarding structure of chromatin, its remolding by post-translational modifications in histones, their relevance in regulation of eukaryotic gene expression, significance of histone H3-specific proteases, detailed structure and regulation of GDH and the possible role of metabolic enzymes in the chromatin regulatory network.

Contents

504. HANSI KUMARI

Molecular, Microbiological and Metagenomic Approaches for the Detection of Environmental Contamination by Aromatic and Chlorinated Hydrocarbons.

Supervisor : Prof. Rup Lal

Th 16395

Abstract

Deals with the better understanding of the genes and organisms involved in the degradation pathway of two such chemical pollutants, 2-hydroxybiphenyl (2-HBP) and hexachlorocyclohexane (CHC), to develop strategies for biosensing and bioremediation; regulatory gnes of XyIR/DmpR subclass of NtrC family of transcriptional regulators which can be developed into biosensors for detection of various aromatic compounds; screening and isolation of novel members of the XyIR/DmpR subclass from soil samples collected from contaminated sites in India. Covers the study of a highly contaminated HCH dumpsite in Lucknow.

Contents

1. Charaterization of HbpR protein of NtrC family from pseudomonas azelaica HBP1. 2. Screening and isolation of novel members of transcriptional regulators belonging of XyIR/DmpR subclass of NtrC family by metagenomic approach. 3. PCr based detection and quantitation methods for hexachlorocyclohexane (HCH) catabolizing gene (linA and linB) at HCH dumpsite. 4. Description of sphingobium lactosutens sp. nov., Isolated from hexachlorocyclohexane (HCH) dumpsite and sphingobium abikonense sp. nov. isolated from oil contaimanated soil.

505. LABH (Shyam Narayan)
Effects of L-Ascorbate 2-Triphosphate Ca on Growth, Biochemical Composition, Haematology and Tissue Ultrastructure of Carps.
Supervisor : Dr. Rina Chakrabarti
Th 16394

Abstract

Shows that there is death of information on the requirement of vitamin C for carps, especially for Indian major carps. Attempts to study the effects of dietary supplementation of ascorbic acid (L-ascorbate 2-triphosphate Ca) a stable form of vitamin C on survival, growth, biochemical changes, haematology and tissue ultrastructure of Indian major carps and exotic carps.

Contents

1. Introduction. 2. Review of literature. 3. Materials and methods. 4. Role of vitamin C on the physilogy of carps. Summary, conclusion and bibliography.

506. LEE (Jaeok)
Buffalo Pituitary Prolactin : Purification, Microheterogeneity and Angiostatic Activity of Size Isoforms.
Supervisor : Prof. K. Muralidhar
Th 16397

Abstract

Buffalo pituitary prolactin (PRL) and growth hormone (GH) are purified to homogeneity from the 'discarded acid pellet' of the same batch of glands. The effect of buPRL monomer on human breast epithelial cancer cell line, MCF-7 with wild types of p53,

estrogen and PRL receptors, is studied by MTT assay. Buffalo PRL did not stimulate MCF-7 cells proliferation. Naturally occurring lower sized isoforms of buPRL, synthetic peptides based on internal sequence and cathepsin cleaved peptides from byPRL have all been observed to possess strong antiangiogenic activity.

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