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Volume 11, Issue 2

July - December 2017

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Thermoelectric Power of Vapor Grown $\text{Sb}_2\text{Te}_{2.9}\text{S}_{0.1}$ Crystals

Thankamma George, Ajayakumar C. J and Kunjomana A.G.

Abstract

Incorporation of sulfur (S) into tellurium (Te) sites offers the feasibility to architecture carrier concentration in antimony telluride (Sb_2Te_3). Utilizing Physical vapor deposition (PVD), chemically homogeneous stoichiometric Sb_2Te_3 crystals were grown. The samples were structurally characterized using powder X-ray diffraction (XRD) technique and thermoelectric (TE) power from 300-460 K temperature range was investigated. Enhancement of Seebeck coefficient was observed in $\text{Sb}_2\text{Te}_{2.9}\text{S}_{0.1}$ crystals in comparison to pure Sb_2Te_3 , which makes the material useful in TE applications.

Key words: Thermoelectrics, Antimony telluride, Doping

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Synthesis of Amino Chromene Derivatives at Room Temperature using Imidazole as the Organocatalyst

Gomathi A. S. and Bandita Datta

Abstract

Amino chromene derivatives were synthesised by a three component, one-pot synthesis involving easy work-up using an aromatic aldehyde, malononitrile and substituted phenol in the presence of imidazole at room temperature. Solvent used was water following the green synthesis aspects.

Key words: Aminochromene, malononitrile, imidazole and green.

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Theoretical Radius of kaon from α -Quantization

Madhu Kashyap Jagadeesh

Abstract

The Relativistic spinning sphere model which invokes the magnetic self energy of elementary particles masses is well-studied. In this research, the electromagnetic mass of electron from lepton family is connected with the electromagnetic mass of kaon from meson family using the above model. In turn the result of the theoretical kaon radii is obtained and compared with the experimental values of CERN SPS.

Key words: Electromagnetic mass, kaon radius and electron structure.

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Significant Trajectories in Gabriel Okara's *The Voice*

V. Shantha

Abstract

Gabriel Okara's novel *The Voice* is a unique and significant post-colonial text that interrogates the condition of his contemporary society. This paper explores three significant trajectories in the novel: the narrative mode, the stylistic-linguistic devices used in the text, and the thematic concerns. The paper engages with the ideas of postcoloniality and the location and identity of the protagonist in a traditional society.

Key words: Postcolonial, linguistic, allegory, individualism

Second World War and Development of Agriculture in the Princely State of Mysore

V. Kantharaju and Nalini Sekaran

Abstract

War is an inevitable element in the life of nations. India as a colony of Britain participated in the Second World War. At the outbreak of the War, the British Indian Army which numbered 2,05,000 men increased upto over 2.5 million men by the end of the War in 1945 A.D. The Second World War left a deep impact on the different sectors of India's economy. In the initial stages of the War, it was expected that the agricultural conditions would improve. Accordingly, the prices of raw-materials and food stuffs rose and a large overseas demand for commodities like raw-jute and oil-seeds appeared. This prosperity was, however, short-lived as the demand for agricultural commodities declined such as that of groundnuts, raw-jute, and raw-cotton. The first problem in India, arising out of war, was thus of the so called agricultural surpluses. A problem more serious than the problem of agricultural surpluses was that of the shortage of food grains.

This paper attempts to highlight the development of agriculture during the Second World War in the Princely State of Mysore. It analyses the various challenges and issues of economic nature in general and agricultural issues in particular faced by the Mysore State during and after the Second World War. Mysore State has been the pioneer in undertaking various developmental measures. Even during and after the Second World War it proved itself as a Modern as well as a Model State by attending to the needs of the people through various measures, specially in the field of agriculture. This paper tries to understand the various measures and development programmes implemented by the then Dewans and the Maharaja of Mysore during and after the Second World War and their impact on the agricultural development of the State.

Key words: Agricultural Surpluses, British Indian Army, Development Programmes, Princely State of Mysore, Second World War.

Effect of Video Modelling Training and Imagery Training on the Free Throw Performance in School Basketball Players

Asha Francis C and K. Kannadasan

Abstract

The present investigation attempts to compare the effect of video modelling training and imagery training on the free throw performance in school basketball players. For the purpose of the study a sample of 45 subjects were selected by simple random method from the school basketball players studying in THE INDIAN PUBLIC SCHOOL, Erode, Tamil Nadu. Players in age group between 12-16 years were selected for the study and divided into three group of fifteen in each group. The experimental group I and II were named as imagery training group and video modelling group respectively. One group is considered as the control group which is the basic reference group. The experimental groups were given their respective training program for six weeks duration. The statistical treatment used for analyzing the data was ANOVA and THE SCHEFFE'S TEST FOR ADJUSTED POST TEST MEANS. The result of the study showed that the video modelling training group and imaginary training group significantly improved the free throw skill performance better than the control group and there is no significant difference in the effect of both trainings.

Key words: Sports Psychology, basketball, free throw, imagery, video modelling.

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Cost and Returns of Major Crops in Kerala

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Abstract

In the present century also agriculture is the main economic activity. This sector of Kerala witnessed change in cropping pattern and shift in cultivation. In this shift, commercial and plantation crops increased considerably. In the state, different crops are cultivated which underwent significant increase in area and production due to area and yield effects. An analysis of costs and returns is very relevant in the state and the cost of cultivation and returns from farm per hectare of major crops indicated that all crops studied are profitable in Kerala.

Key words: Cost of cultivation, Major crops, Kerala, Return

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Micro-Finance – A Miracle Cure to Eradicate Rural Poverty

Priyadarshini Pillai

Abstract

Micro-finance has evolved over the past quarter century across India into various operating forms and to a varying degree of success. One such form of micro-finance has been the development of the self-help Groups. Based on the concept of “self-help,” small groups of women have formed into groups of ten to twenty and operate a savings-first business model whereby the member’s savings are used to fund loans. The results from these self-help groups (SHGs) are promising and have become a focus of intense examination as it is proving to be an effective method of poverty reduction. SHGs have helped and have been helping the poor especially the rural poor families in maximum number.

Key words: Micro-finance, Self Help Groups (SHGs), Banks, Refinance, National Bank for Agriculture and Rural Development (NABARD).