

Spring International Conference on Advances in Physics

(CAP-S 2013)

**Held at the Spring World Congress on Engineering
and Technology (SCET 2013)**

Journal of Modern Physics Volume 4, Number 5B

**Wuhan, China
31 May – 2 June 2013**

Editors:

V. Yashnikov

ISBN: 978-1-63266-759-5

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2013) by the Scientific Research Publishing Inc.
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact the Scientific Research Publishing Inc.
at the address below.

Scientific Research Publishing Inc.
P.O. Box 54821
Irvine, CA 92619-4821

Phone: (408) 329-4591

bookorder@scirp.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Volume 4 Number 5B

May 2013

The M3Y Double Folding Dissipative Model in Agreement with Precise Fusion Cross Sections

I. I. Gontchar, M. V. Chushnyakova.....1

Bargmann Symmetry Constraint and Binary Nonlinearization of Super NLS-MKdV Hierarchy

S. X. Tao, H. Shi.....5

Laser Conoscopic Research Technique For Single Crystals LiNbO₃: Mg

O. Y. Pikoul, N. V. Sidorov, M. N. Palatnikov, O. V. Makarova.....12

Stability and Vorticity Production in Stratified Astrophysical Disks

E. S. Uchava, A. G. Tevzadze, G. D. Chagelishvili.....18

Acousto-Resonance Spectroscopy of Nonlinear-Optical Crystals in Process of Laser Frequency Conversion

O. A. Ryabushkin, A. V. Konyashkin, D. V. Myasnikov, V. A. Tyrtysnyy, O. I. Vershinin, A. I. Baranov.....23

Spectra of Hydrogen Atom with GUP and Extra Dimensions

B. R. Mu.....29

Influence of Tensor Interaction on Evolution of Nuclear Shells

R. Bhattacharya.....33

Bulk Properties of Symmetric Nuclear and Pure Neutron Matter

K. Hassaneen, H. Mansour.....37

A Comparative Study of Amplitude and Timing Estimation in Experimental Particle Physics using Monte Carlo Simulation

H. D. Xu, D. T. Gong, Y. Chiu.....42

Coherent Resonance of Saturated Absorption in Spectroscopy of Counterpropagating Waves

A. A. Chernenko, E. G. Saprykin, A. M. Shalagin.....48

Quantum Isomorphic Shell Model: Multi-Harmonic Shell Clustering of Nuclei

G. S. Anagnostatos.....54

Ground State of ⁴⁷H Considering Internal Collective Rotation

S. Paschalis, G. S. Anagnostatos.....66

Phenomenological and Semi-microscopic Analysis for the Elastic Scattering of Protons from ^{12}C Nuclei at Different Energies

S. Hamada, N. Amangeldi.....78

An Arbitrated Quantum Signature Scheme Based on Chaotic Quantum Encryption Algorithm

Y. Guo, J. Xie, J. Li, M. H. Lee.....83

On the Sub-Critical Bifurcation of Anti-Phase and In-Phase Synchronized Vortex Shedding Forms

Y. F. Peng.....89