



COMMUNICATIONS IN PHYSICS

ISSN 0868 - 3166

Published by
VIETNAM ACADEMY OF SCIENCE AND TECHNOLOGY

Volume 20, Number 3

September 2010

Contents

	Page
Doan Nhat Quang, Nguyen Huyen Tung, Nguyen Trung Hong, and Tran Thi Hai – Mobility Enhancement in Square Quantum Wells: Symmetric Modulation of the Envelop Wave Function	193
Le Tuan, Nguyen Thanh Tien, Tran Thi An, and Doan Nhat Quang – Scattering Mechanisms from Roughness-induced Fluctuations in Charge Distributions in ZnO Surface Quantum Wells	201
Nguyen Thi Thuy Nhung, Le Thanh Tung, Nguyen Duc Giang, Ngo Van Thanh, and Nguyen Ai Viet – Effects of Electroporation on Biological Membranes Exposed to High Potentials	211
Vu Van Hung, Ho Khac Hieu, and Nguyen Van Hung – Pressure Dependence of EXAFS Debye-Waller Factors in Crystals	219
Vu Van Hung, Phan Thi Thanh Hong, and Nguyen Thanh Hai – Study of Self-diffusion in GaAs Crystal: Temperature Dependence	227
Truong Minh Duc and Nguyen Thi Xuan Hoai – Entanglement Criterion for Bipartite Quantum States: Applications	233
Bui Dinh Hoi, Vo Thanh Lam, and Tran Cong Phong – Magnetophonon Resonance in Quantum Wells with Parabolic Potential	241
Nguyen Quang Bau, Nguyen Van Hieu, Nguyen Thi Thuy, and Tran Cong Phong – The Nonlinear Acoustoelectric Effect in a Superlattice	249
Vu Ngoc Tuoc and Nguyen Viet Minh – First Principle Study on AlN Nano Wire	255
Ho Quang Quy, Mai Van Luu, and Vu Ngoc Sau – Matching of Pumped and Laser Mode Volumes Inside a Diode Side-pumped Solid-state Laser	265
Nguyen Vien Tho and Nguyen Quoc Hoan – On the Yang - Mills Gravity	271
Tran Huu Phat, Le Viet Hoa, Nguyen Tuan Anh, and Nguyen Van Long – Phase Transition in Binary Mixture of Bose Gases	277



COMMUNICATIONS IN PHYSICS

ISSN 0868 - 3166

Published by
VIETNAM ACADEMY OF SCIENCE AND TECHNOLOGY

Volume 20, Number 4

December 2010

Contents

	Page
Phan Duc Anh, Quach Kha Quang, Tran Thanh Thuy, Vu Thuy Huong, Ngo Van Thanh, and Nguyen Ai Viet – Van Der Waals and Casimir Interactions of Some Graphene, Material Plate and CNTs Systems	289
Pham Thi Thanh Nga and Nguyen Toan Thang – On the Spin Liquid States of the Fermionized Heisenberg Antiferromagnetic on Triangular Lattice	295
Nguyen Viet Minh – Piezoelectric Effect on the Electron Mobility in an Unintentionally Doped GaN/AlGa _N Surface Quantum Well	301
Vu Thuy Huong, Quach Kha Quang, Tran Thanh Thuy, Phan Duc Anh, Ngo Van Thanh, and Nguyen Ai Viet – pH-Dependence of the Optical Bio-sensor Based on DNA-carbon Nanotube	309
Tran Thi Hai, Nguyen Trung Hong, Nguyen Huyen Tung, and Doan Nhat Quang – The Channel-width Dependence of the Low-temperature Hole Mobility in Ge-rich Narrow Square Quantum Well Studied by the Band-bending Method	319
Tran Nguyen Truong – Bethe-Schwinger Effective Range Theory and Lehmann and Weinberg Chiral Perturbation Theories	325
Vo Van Thuan, Hoang Van Khanh, and Pham Ngoc Diep – Search for High Energy Skimming Neutrinos at a Surface Detector Array	349
Dao Thi Le Thuy, Le Nhu Thuc, and Dang Van Soa – Photon-axion Conversion Cross-sections in a Resonant Cavity with TM_{m10} mode	359
Huynh Thi Ha, Dao Tran Cao, Le Quang Huy, and Nguyen The Quynh – The Synthesis and Photoluminescence of 3C-SiC Nanorods	365
Ho Quang Quy, Nguyen Thi Thanh Tam, and Nguyen Van Hoa – Transmittance Function of Two-ports Nonlinear Fiber Mach-Zehnder Interferometer	371
Pham Song Toan, Trinh Duc Thien, and Nguyen Quang Liem – Large-scale Synthesis of CdTe Quantum Dots in Aqueous Phase	377