



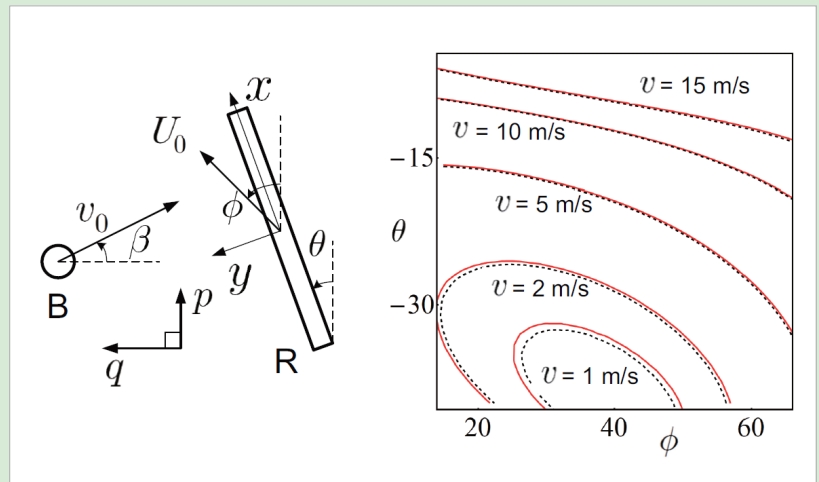
한국물리학회지

새물리

NEW PHYSICS SAE MULLI

제67권 제11호
(Volume 67, No. 11)

2017년 11월
(November 2017)



| **Highlight Paper** |

Editor's choice

Study on the Motion of a Tennis Ball for an Efficient Swing Pattern to Send the Ball Toward a Target

(Sun-Hyun Youn, p. 1378)

CONTENTS

New Physics: Sae Mulli

Vol. 67, No. 11

November 2017

<Applied Physics>

- Ionic Conduction Properties in $\text{Li}_2\text{O}-0.8\text{P}_2\text{O}_5-0.2\text{B}_2\text{O}_3$ Glass: Electrical Conductivity and Impedance Analysis
..... Mac KIM, Yong Suk YANG 1257
- Magnetic Property of the High-Temperature Superconductor GdBCO Coated Conductor
..... Byung Du PARK, Kyu Jeong SONG 1264
- Electrical and Ferroelectric Properties of Rare-earth-doped $\text{Na}_{0.5}\text{Bi}_{4.0}\text{RE}_{0.5}\text{Ti}_4\text{O}_{15}$ ($\text{RE} = \text{Eu, Gd and Dy}$) Thin Films
..... Min Hwan KWAK, Chinnambedu Murugesan RAGHAVAN, Sang Su KIM, Won-Jeong KIM 1272
- Temperature-Dependent Raman Spectroscopy of Lead-Free $(\text{Na}_{0.5}\text{K}_{0.5})\text{NbO}_3$ Ceramics
..... Ho Sueb LEE, Hyo-Eun KIM, Jin Soo KIM, Kwang-Sei LEE 1279
- Dielectric Dispersion and Ferroelectric P-E Hysteresis Loop of Lead-Free Ta-Substituted $(\text{Na}_{0.53}\text{K}_{0.47})(\text{Nb}_{0.55}\text{Ta}_{0.45})\text{O}_3$ Ceramics
..... Jin Soo KIM, Hyo-Eun KIM, Ho Sueb LEE, Kwang-Sei LEE 1284
- Effect of Indium Concentration on the Morphological and Photoluminescence Properties of In-doped ZnO Nanorods
..... Fan ZHANG, Hong Seung KIM, Nak Won JANG 1291
- A Study of Iron Nanocluster Synthesis and Oxidation Reaction by Using a Flash Camera
..... Chang-Duk KIM, Do-Hyung KIM, Kiwon YANG, Hyeong-Rag LEE, Young-Soo Sohn 1297
- Study of the Strain and Electric Properties of Fe-doped GaN Grown on Si(110) by Using Molecular Beam Epitaxy
..... Sang-Tae LEE, Byung-Guon PARK, Moon-Deock KIM, Song-Gang KIM 1302
- Characteristics of the Gases Emitted from Semiconductor Packing Plastics due to γ -ray Radiations
..... Donghoon OH, Deokjoon CHA 1308

<Particle and Nuclei Physics>

- Analysis of $\alpha + {}^{16}\text{O}$ Elastic Scattering in the Coulomb-Modified Glauber Model
..... Yong Joo KIM 1312
- Feasibility Study Using GEANT4 Monte Carlo Simulations of a PET Cyclotron-Based Neutron Source for Boron Neutron Capture Therapy
..... Jae Won CHOI, Bo Sun KANG 1319

<Other Areas of Physics>

- How Does Peer Instruction Contribute to Learning Advancement in Solving Problems Involving Newton's Second Law?
..... Il LEE, Junehee YOO 1327
- General Derivation of the Doppler Effect by Using a Space-Time Graph and Its Application
..... Gyhyuk KIM 1342

(continued)

Destructive Interference and Conservation of Energy: Characteristics of Gifted Students' Understanding	Sangwoo HA	1348
Effect of a Stationary Wave Experiment Using a Smart Phone on High-School Students' Understanding of the Concepts and Science Attitude Changes	Kyung Jin SUNG, Youngmin KIM	1362
Analysis of Scientific Inquiry Problems and Hypothesis-Testing Methods in Physics Inquiry Reports Made by Middle and High School Students	Yung-jun YANG, Kyung-hee KANG	1370
Study on the Motion of a Tennis Ball for an Efficient Swing Pattern to Send the Ball Toward a Target	Sun-Hyun YOUN	1378
Effects of Optical Guiding in a 1D Time-Dependent Free-Electron Laser	Soon-Kwon NAM	1388
Refractive Index Distribution Measurement of an Optical Component by Using Digital Holography	Silin NA, Younghun YU	1393
Growth of Amorphous Titanium-Oxide Thin Films by Using Different Oxygen Partial Pressures	Jin-Soo KIM, Hyeok JEE, Hye-Won SEO	1399

<Erratum>

Erratum: Intensity-Dependent Photovoltaic Effect of InAs/InGaAs Dot-in-a-Well Solar Cells	Yu Ho CHOE, Jong Su KIM, Sang Jun LEE	1404
---	---------------------------------------	------

(end)



Volume 67, No. 11 (Monthly)
 ISSN(Print) 0374-4914
 ISSN(Online) 2289-0041
<http://www.npsm-kps.org>

Printed date : 2017. 11. 27

Published date : 2017. 11. 30

Publisher : The Korean Physical Society (President : **Jae Il LEE**)

Editor in Chief : **Sam Jin KIM**

Printing Office : Good Idea Good People (Min Soo KIM)

The Korea Science Technology Center (Rm. 901), 22, 7 Gil,
 Teheran-ro, Gangnam-gu, Seoul 06130, Korea
 Tel : +82-2-556-4737 Fax : +82-2-554-1643