

PHYSICS- USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
May 2004 Volume 174 Number 5

Contents

Volume 47
Number 5
2004
Pages 427–532

REVIEWS OF TOPICAL PROBLEMS

Color deconfinement and subhadronic matter: 427
phase states and the role of constituent quarks
I I Royzen, E L Feinberg, O D Chernavskaya

Dusty plasmas 447
V E Fortov, A G Khrapak, S A Khrapak,
V I Molotkov, O F Petrov

Phase diagram of $\text{La}_{2-x}\text{M}_x\text{CuO}_4$ as the key to understanding 493
the nature of high- T_c superconductors
K V Mitsen, O M Ivanenko

CONFERENCES AND SYMPOSIA

Joint scientific session of the Physical Sciences Division 511
of the Russian Academy of Sciences
and the Joint Physical Society of the Russian Federation
(29 October 2003):

Neutron storage 511
A V Strelkov

Investigation of quantum neutron states 515
in the terrestrial gravitational field above a mirror
V V Nesvizhevskii

Continued overleaf

Contents continued

LETTERS TO THE EDITORS

- Sommerfeld formula and Dirac's theory** 523
Ya I Granovskii

PERSONALIA

- In memory of Alekseĭ Alekseevich Tyapkin** 525
Ts D Vylov, V G Kadyshevskii, V D Kekelidze,
A A Logunov, Yu Ts Oganesyanyan, A G Ol'shevskii,
M I Panasyuk, N A Rusakovich, I A Savin,
A N Sisakyan, V I Trukhin, D V Shirkov

BIBLIOGRAPHY

- New books on physics and related sciences** 527
E V Zakharova
- Physics news on the Internet** 531
Yu N Eroshenko

Contents

Color deconfinement and subhadronic matter: phase states and the role of constituent quarks I I Royzen, E L Feinberg, O D Chernavskaya	427
Dusty plasmas V E Fortov, A G Khrapak, S A Khrapak, V I Molotkov, O F Petrov	447
Phase diagram of $\text{La}_{2-x}\text{M}_x\text{CuO}_4$ as the key to understanding the nature of high-T_c superconductors K V Mitsen, O M Ivanenko	493
Joint scientific session of the Physical Sciences Division of the Russian Academy of Sciences and the Joint Physical Society of the Russian Federation (29 October 2003):	511
Neutron storage A V Strelkov	511
Investigation of quantum neutron states in the terrestrial gravitational field above a mirror V V Nesvizhevskii	515
Sommerfeld formula and Dirac's theory Ya I Granovskii	523
In memory of Alekseï Alekseevich Tyapkin	525
New books on physics and related sciences E V Zakharova	527
Physics news on the Internet Yu N Eroshenko	531

◇ ◇ ◇

In the next issue

*Finite-size effects in quasi-one-dimensional conductors
with charge-density waves*
S V Zaitsev-Zotov

Electromagnetic waves in a magnetized plasma near the critical surface
A V Timofeev

Vavilov–Cherenkov amplifiers with irregular electrodynamic structures
Yu V Gulyaev, V F Kravchenko, A A Kuraev

*Negative index of refraction for a magnetostatic surface wave propagating
through the boundary between a ferrite and a ferrite-dielectric-metal medium*
A V Vashkovskii, E H Lock

How were the Hilbert–Einstein equations discovered?
A A Logunov, M A Mestvirishvili, V A Petrov

Conferences and symposia

Personalia

Bibliography

Physics news on the Internet

