

PHYSICS- USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
April 1997 Volume 167 Number 4

Contents

Volume 40
Number 4
1997
Pages 337–444

REVIEWS OF TOPICAL PROBLEMS

The electron–phonon interaction and the physical properties of metals 337
E G Maksimov, D Yu Savrasov, S Yu Savrasov

Solitons and their interactions in classical field theory 359
T I Belova, A E Kudryavtsev

Atomic migration and related changes in defect concentration and structure due to electronic subsystem excitations in semiconductors 387
V S Vavilov

INSTRUMENTS AND METHODS OF INVESTIGATION

New technologies: nuclear quadrupole resonance as an explosive and narcotic detection technique 393
V S Grechishkin, N Ya Sinyavskii

FROM THE HISTORY OF PHYSICS

Superconductivity and superfluidity (what was done and what was not) 407
V L Ginzburg

CONFERENCES AND SYMPOSIA

Jubilee scientific session of the Division of General Physics and Astronomy of the Russian Academy of Sciences, celebrating the 80th anniversary of the birth of Academician V L Ginzburg (October 2, 1996):

Special theory of relativity: how good-faith delusions come about 433
E L Feinberg

Continued overleaf

Contents continued

| | |
|--|-----|
| On the ‘giant’ thermoelectric effect in a hollow superconducting cylinder R M Arutyunyan, V L Ginzburg, G F Zharkov | 435 |
| Astrophysical plasma in extreme conditions V V Zheleznyakov | 438 |
| PERSONALIA | |
| In memory of Georgii Vyacheslavovich Kurdyumov Zh I Alferov, A F Andreev, A S Borovik-Romanov, A A Boyarchuk, V L Ginzburg, L V Keldysh, V V Nemoshkalenko, Yu A Osip’yan, B E Paton, A M Prokhorov, I A Tomilin | 441 |
| Physics news on the Internet Yu N Eroshenko | 443 |