

PHYSICS– USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
May 2000 Volume 170 Number 5

Contents

Volume 43

Number 5

2000

Pages 433–540

REVIEWS OF TOPICAL PROBLEMS

Electron cooling: 35 years of development 433
V V Parkhomchuk, A N Skriniskii

Cluster plasma 453
B M Smirnov

**Universal viscosity growth in metallic melts at megabar pressures:
the vitreous state of the Earth's inner core** 493
V V Brazhkin, A G Lyapin

PHYSICS OF OUR DAYS

Supernova explosions and historical chronology 509
V S Imshennik

METHODOLOGICAL NOTES

**Extension of the λ curve of ^4He into the region of the metastable
state of liquid helium** 515
V P Skripov

Physics news on the Internet 520
Yu N Eroshenko

Continued overleaf

Contents continued

CONFERENCES AND SYMPOSIA

- Scientific session of the Division of General Physics and Astronomy
of the Russian Academy of Sciences (26 January 2000):**
- Development of apparatus and data processing methods for electromagnetic
subsurface probing and experiments with their practical implementation** 521
A E Reznikov, V V Kopeikin, P A Morozov, A Yu Shchekotov
- Scientific session of the Division of General Physics and Astronomy
of the Russian Academy of Sciences (23 February 2000):**
- Surface phases on silicon** 525
V G Lifshits, Yu L Gavrilyuk, A A Saranin,
A V Zotov, D A Tsukanov
- Scanning tunneling microscopy of ‘commensurate–incommensurate’
structural phase transitions in the chemisorbed layers of halogens** 527
B V Andryushechkin, K N El’tsov, V M Shevlyuga
- Tunneling spectroscopy of the localized states of individual impurity atoms
on a semiconductor surface** 531
N S Maslova, V I Panov, S V Savinov

PERSONALIA

- In memory of Ivan Alekseevich Yakovlev** 535
K N Baranskii, T S Velichkina, V L Ginzburg, L P Kurakov,
T V Laptinskaya, V A Sadovnichii, V I Trukhin, I L Fabelinskiĭ,
A R Khokhlov, T G Chernevich, O A Shustin, B N Shvilkin

BIBLIOGRAPHY

- New books on physics and related sciences** 537
E V Zakharova

Contents

Electron cooling: 35 years of development V V Parkhomchuk, A N Skriniskiĭ	433
Cluster plasma B M Smirnov	453
Universal viscosity growth in metallic melts at megabar pressures: the vitreous state of the Earth's inner core V V Brazhkin, A G Lyapin	493
Supernova explosions and historical chronology V S Imshennik	509
Extension of the λ curve of ^4He into the region of the metastable state of liquid helium V P Skripov	515
Physics news on the Internet Yu N Eroshenko	520
Scientific session of the Division of General Physics and Astronomy of the Russian Academy of Sciences (26 January 2000): contribution by A E Reznikov et al.	521
Scientific session of the Division of General Physics and Astronomy of the Russian Academy of Sciences (23 February 2000): contribution by V G Lifshits et al.; B V Andryushechkin et al.; N S Maslova et al.	525
In memory of Ivan Alekseevich Yakovlev	535
New books on physics and related sciences E V Zakharova	537

◇ ◇ ◇

In the next issue

Nanotribology: experimental facts and theoretical models
G V Dedkov

Superconductivity: the day before yesterday – yesterday – today – tomorrow
V L Ginzburg

Quantum mechanics: new experiments, new applications, new formulations
M B Menskiĭ

Physical principles of the generalized Boltzmann kinetic theory
B V Alekseev

Thermodynamics of simple quantum systems
V V Mityugov

Conferences and symposia

Physics news on the Internet

