

Volume 67
 Number 2
 2024
 Pages 107–217

PHYSICS– USPEKHI

English edition of *Uspekhi Fizicheskikh Nauk*
 February 2024 Volume 194 Number 2

*Russian original
 reference*
Usp. Fiz. Nauk
 Vol. 194, pages

*English translation
 reference*
Phys. Usp.
 Vol. 67, pages

Contents

40th ANNIVERSARY OF THE PROKHOROV GENERAL PHYSICS INSTITUTE, RUSSIAN ACADEMY OF SCIENCES

- | | | |
|-----------------------------|---|-----|
| 113 | 40 years of the Prokhorov General Physics Institute,
 Russian Academy of Sciences
S V Garnov | 107 |
| REVIEWS OF TOPICAL PROBLEMS | | |
| 115 | Electrophysics of carbon 1D structures obtained in a laser experiment:
 models and demonstration
S V Garnov, D V Abramov, D N Bukharov,
T A Khudaiberganov, K S Khor'kov, A V Osipov, S V Zhirnova,
A O Kucherik, S M Arakelyan | 109 |
| 138 | Hollow-core optical fibers: current state and development prospects
A D Pryamikov, A V Gladyshev, A F Kosolapov, I A Bufetov | 129 |
| 169 | Generation of terahertz radiation
 in the plasma of optical gas breakdown
A A Ushakov, P A Chizhov, V V Bukin , S V Garnov | 157 |
| 184 | Acoustic properties of the sea bottom and their effect
 on long-range sound propagation on the Arctic shelf
A A Lunkov, V A Grigorev, V G Petnikov | 171 |

Continued overleaf

*Russian original
reference
Usp. Fiz. Nauk
Vol. 194, pages*

Contents continued

*English translation
reference
Phys. Usp.
Vol. 67, pages*

INSTRUMENTS AND METHODS OF INVESTIGATION

- 208 **Modern physical methods and technologies in agriculture** **194**
S V Gudkov, R M Sarimov, M E Astashev, R Yu Pishchalnikov,
D V Yanykin, A V Simakin, A V Shkirin, D A Serov,
E M Konchekov, N G Gusein-zade, V N Lednev, M Ya Grishin,
P A Sdvizhenskii, S M Pershin, A F Bunkin, M Kh Ashurov,
A G Aksenov, N O Chilingaryan, I G Smirnov, D Yu Pavkin,
D O Hort, M N Moskovskiy, A V Sibirev, Ya P Lobachevsky,
A S Dorokhov, A Yu Izmailov

PERSONALIA

- 227 **Aleksei Removich Khokhlov (on his 70th birthday)** **211**
V V Vasilevskaya, M O Gallyamov, A Yu Grosberg,
R A Gumerov, A V Emel'yanenko, V A Ivanov,
E Yu Kramarenko, I I Potemkin, O V Rudenko,
A M Sergeev, O E Philippova, D R Khokhlov
- 229 **Georgii Nikolaevich Rykovanov (on his 70th birthday)** **213**
K F Grebenkin, V G Degtyar, R I Il'kaev,
S N Lebedev, P V Logachev, G A Mesyats,
D V Petrov, M V Sadovskii, V A Solov'ev,
Yu S Solomonov, V V Ustinov, V N Charushin

PHYSICS NEWS

- 231 **Physics news on the Internet: February 2024** **215**
Yu N Eroshenko