

New books on physics and related sciences

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Kompanets I N (compiler, editor, and author) *N G Basov and research on quantum radio physics at P N Lebedev Physical Institute (FIAN)* (on the centenary of the birth of academician N G Basov and 60 years since the foundation of the Laboratory — N G Basov Department of Quantum Radio Physics at P N Lebedev Physical Institute of RAS). (Moscow: FIAN, 2022) 416 p. ISBN 978-5-6048205-5-1.

The book is devoted to the centenary of the birth of the great Russian scientist and Nobel Prize winner academician Nikolai Gennadievich Basov and the 60th year activity of the Laboratory (and then the Department) of Quantum Radio Physics (DQRP) founded by N G Basov at the P N Lebedev Physical Institute of the USSR Academy of Sciences (FIAN) in Moscow. The studies on quantum radio physics carried out at DQRP resulted in the creation of masers and lasers and opened a new ‘laser’ era, not only in the development of science and technology but also in people’s everyday life. The book is a chronicle of the chain of events associating N G Basov with scientists from DQRP and FIAN and their research work, initiated by Basov. This research has been carried out for over 70 years now by his associates, disciples, and disciples of disciples. Research workers at DQRP FIAN continue enriching science with new ideas and practical results, at the same time considering with care the scientific legacy of this great man. The book appeared on November 28, 2022 and was presented at the “Basov readings” (the joint ceremonial meeting of the Division of General Physics and Astronomy and the Division of Nanotechnologies of the Russian Academy of Sciences (RAS) and also at scientific councils at FIAN and the A M Prokhorov Institute of General Physics of RAS devoted to the centenary of the birth of Nikolai Gennadievich Basov). The book is intended for a wide range of readers interested in the history of science and technology. The author of the book, Igor Nikolaevich Kompanets, has been working at DQRP since 1967 and was G N Basov’s post-graduate, an engineer, a research worker, the head of a subdivision, and even secretary of party organization and, accordingly, knew and understood quite well the tasks and problems to be solved by his teacher and the team. Based on the archive materials and the help of colleagues (whose names the author thankfully listed in the book), the author tried to summarize what he had seen and experienced. (Information on the book is accessible through FIAN: Leninskii prosp. 53, 119991 Moscow, Russian Federation; +7 (499) 135-42-64, URL: <http://www.lebedev.ru/>)

Nikolai Gennadievich Basov. On the centenary of his birth. (Series of photograph album books, “Biographies of scientists in photographs and documents,” authors/compilers: V M Berezanskaya, M A Lukichev, N M Shaul’skaya, Ed. A A Ionin) (Moscow: FIAN, RMP, 2022) 216 p. ISBN 978-5-91597-159-1.

The P N Lebedev Physical Institute of RAS (FIAN) presented a photo album book from the series “Biographies of scientists in photographs and documents” about outstanding Russian scientists whose activity gained worldwide importance (for the photo album books previously published in this series, see *Phys. Usp.* **64** 635 (2021) (*Usp. Fiz. Nauk* **191** 670 (2021)). On November 28, 2022, a new book, devoted (just like the ceremonial meeting) to the centenary of the birth of 1964 Nobel Prize winner academician Nikolai Gennadievich Basov, one of the founders of a new science—quantum electronics (laser physics), which changed our world radically—was presented at the ‘Basov readings’ (the joint ceremonial meeting of the Department of General Physics and Astronomy and the Department of Nanotechnology of the Russian Academy of Sciences (RAS) and the Scientific Councils of FIAN and the Prokhorov General Physics Institute of the Russian Academy of Sciences). The first edition of the album, devoted to N G Basov, appeared in 2017 (on the 95th anniversary of Basov’s birth). The present (second) edition of the album has been substantially supplemented and extended. Most of the material presented in the new album is published for the first time. In the abstract, the authors expressed their deep gratitude to Kseniya Tikhonovna Basova, the RAS Archive, and the Federal Archive Agency of the Russian Federation (Rosarkhiv) for the photographs and documents provided. The publication of the album would be impossible without the support and help of FIAN’s workers, FIAN’s librarians, and the Archive of the Polytechnical Museum. The second edition was supplemented with some documents and texts and some specifications, corrections, and changes were introduced to the texts and bibliography. Published (just like the previous photo album books) with the organizational and financial support of FIAN, the new album presents documentary evidence of the life and creative activity of an outstanding physicist of the 20th century, our compatriot Nikolai Gennadievich Basov. The album is addressed to a wide range of readers. (The reader can get acquainted with the electronic versions of the photo album books published previously on FIAN’s site in the section ‘Media’: <https://lebedev.ru/ru/site-media/knigi.html>; FIAN: Leninskii prosp. 53, 119991 Moscow, Russian Federation; +7 (499) 135-42-64, URL: <http://www.lebedev.ru/>; Publishing house RMP (Real Modern Pictures): ul. Krestovaya 55, 152901, Rybinsk, Russian Federation; e-mail: rmposad@mail.ru; URL: <http://izdatelstvo-rmp.ru/>)

***Nikolai Gennadievich Basov — the founder of quantum physics
(on the 100th anniversary of his birth): bibliographic index.***

(Federal Intellectual Property Service (Rospatent), FSBI Federal Institute of Industrial Property (FIIP), All-Russia Patent and Technical Library (ARPTL), Compiler T F Sergeeva) (Moscow: FIIP, 2022) 91 p. ISBN 978-5-6042896-4-8.

The index presents the main scientific publications of the Nobel Prize winner in physics, outstanding Soviet physicist and science organizer, one of the founders of quantum electronics, Nikolai Gennadievich Basov (1922–2001). His fundamental studies obtained worldwide recognition and gave him a number of high scientific rewards. The index includes complete descriptions of inventions reflected in Russian certificates on intellectual property rights, title pages of N G Basov' foreign patents kept in the State Patent Foundation, as well as publications concerning his life and activity. (Federal Institute of Industrial Property (FIIP): Berezhkovskaya embankment 30, Building 1, Moscow G-59, GCP-3, 125993, Russian Federation, tel. +7 (499) 240 60 15, fax: +7 (495) 531 63 18, e-mail: fips@rupto.ru, URL: <https://www.fips.ru/>)

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