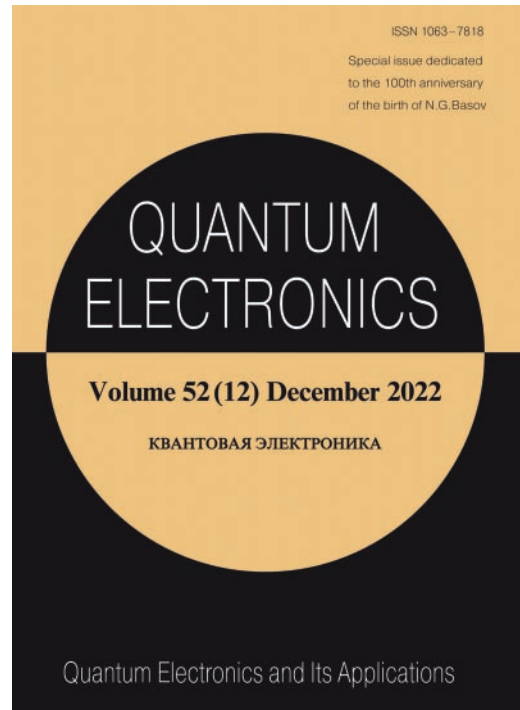
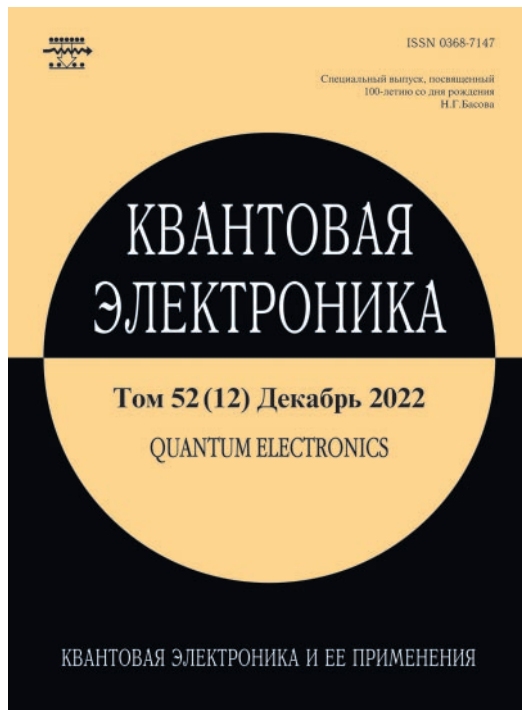


Memorial issue of the journal *Kvantovaya Elektronika* (*Quantum Electronics*)

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Covers of the special issues dedicated to the 100th anniversary of the birth of N.G. Basov: Russian original journal *Kvantovaya Elektronika* (left); English translation of the Russian journal *Kvantovaya Elektronika* published in English under the title *Quantum Electronics* (right).

The December issue of the journal *Kvantovaya Elektronika* (*Quantum Electronics* — *QE*) is dedicated to the 100th anniversary of academician N.G. Basov, an outstanding Soviet and Russian physicist, and pioneer and organizer of laser research in the USSR. The journal *Quantum Electronics* was founded by Nikolai Gennadievich in 1971 and soon became one of the world's leading journals in the field of laser physics and quantum electronics. For three decades, until his passing in 2001, N.G. Basov was its editor-in-chief, being attentive, never indifferent, and delving into all problems—precisely what determined the success of the *QE* journal. Paying tribute to its founder and editor-in-chief, *QE* is publishing 11 invited papers in the 12th issue in 2022, reporting on the latest results in some of the many scientific fields pioneered in its time by N.G. Basov. The authors of the papers are leading domestic scientists, including direct representatives of the scientific school of N.G. Basov at the Lebedev Physical Institute of the Russian Academy of Sciences.

Contents of the special issue of the journal *Quantum Electronics* 52 (12) December (2022):

1. I.G. Zubarev. “N.G. Basov as a pioneer and organizer of laser research in the USSR”
2. S.Yu. Gus'kov. “Laser fusion and high energy densities physics”
3. A.I. Danilov, A.V. Ivanov, V.P. Konyaev, Yu.V. Kurnyavko, M.A. Ladugin, A.V. Lobintsov, A.A. Marmalyuk, S.M. Sapozhnikov, V.A. Simakov. “Semiconductor lasers with radiation emission characteristics”
4. V.B. Laptev, S.V. Pigul'skii, E.A. Ryabov. “Laser separation of carbon isotopes by high-power IR radiation”
5. I.A. Artyukov. “Optical and X-ray microlithography at the turn of the century”
6. V.A. Konyshchev, A.V. Leonov, O.E. Nanii, D.D. Starykh, V.N. Treshchikov, R.R. Ubaidullaev. “Trends and prospects for the development of fiber-optic information transmission systems”
7. I.N. Kompanets, E.P. Pozhidaev. “Liquid crystals in laser technology”
8. V.D. Shargorodskii, Yu.A. Roi, A.L. Sokolov, V.D. Nenadovich, A.A. Kovalev, V.Yu. Venediktov. “Quantum-optical systems for solving problems in space geodesy and navigation”
9. V.S. Lebedev, K.S. Kislov, A.A. Narits. “Photoabsorption and dissociation of ArXe⁺ and KrXe⁺ molecular ions by electron impact”
10. P.A. Konyaev, V.P. Lukin. “Adaptive phase correction of vortex lasers beams in a turbulent atmosphere”
11. S.O. Slipchenko, D.A. Veselov, V.V. Zolotarev, A.V. Lyutetskii, A.A. Podoskin, Z.N. Sokolova, V.V. Shamakhov, I.S. Shashkin, P.S. Kop'ev, N.A. Pikhtin. “High-power laser diodes based on InGaAs(P)/Al(In)GaAs(P)/GaAs heterostructures with low internal optical losses”