

Special scientific session of the Editorial Board of the journal “Uspekhi Fizicheskikh Nauk” honoring Vitalii Lazarevich Ginzburg on his 90th birthday (3 October 2006)

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A Special scientific session of the Editorial Board of the journal *Uspekhi Fizicheskikh Nauk* (an oral issue of the journal *UFN*) was held in the Conference Hall of the P N Lebedev Physical Institute, Russian Academy of Sciences (Moscow), on 3 October 2006. Several topical physical problems from the list given by Vitalii Lazarevich Ginzburg in his Nobel Lecture (Ginzburg’s list) were discussed. The following reports were presented at the Session [in the order the problems appeared on Ginzburg’s list (see p. 332)]:

1. **Fortov V E** (Institute for High Energy Density, Associated Institute for High Temperatures, Russian Academy of Sciences). “Intense shock waves and extreme states of matter” (see p. 333);

2. **Smirnov B M** (Institute for High Temperatures, Russian Academy of Sciences, Moscow). “Clusters and phase transitions” (see p. 354);

3. **Rudenko O V** (Physics Department, M V Lomonosov Moscow State University, Moscow). “Nonlinear waves: some biomedical applications” (see p. 359);

4. **Kulipanov G N** (G I Budker Institute of Nuclear Physics Siberian Branch of the Russian Academy of Sciences, Novosibirsk). “Ginzburg’s invention of undulators and their role in modern synchrotron radiation sources and free electron lasers” (see p. 368);

5. **Denisov S P** (Russian State Research Center “Institute for High Energy Physics”, Protvino, Moscow region). “Transition radiation: scientific significance and practical application in high-energy physics” (see p. 377);

6. **Okun L B** (Russian Federation State Scientific Center “Alikhanov Institute of Theoretical and Experimental Physics”, Moscow). “Mirror particles and mirror matter: 50 years of speculation and searching” (see p. 380);

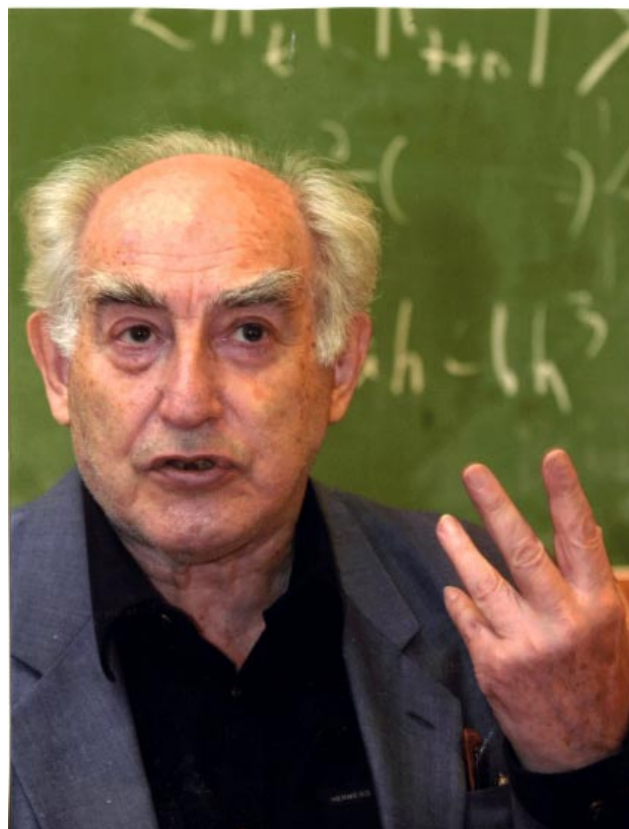
7. **Rubakov V A** (Institute for Nuclear Research, Russian Academy of Sciences, Moscow). “Hierarchies of fundamental constants (to items Nos 16, 17, and 27 from Ginzburg’s list)” (see p. 390);

8. **Menskii M B** (P N Lebedev Physical Institute, Russian Academy of Sciences, Moscow). “Quantum measurements,

the phenomenon of life, and time arrow: three great problems of physics (in Ginzburg’s terminology) and their interrelation” (see p. 397).

The contents of the reports is published below.

The Editorial Board and staff members of the journal *Uspekhi Fizicheskikh Nauk* express their appreciation to the authors, readers guests, and friends of the *Uspekhi Fizicheskikh Nauk* journal who participated in the Special scientific session of the Editorial Board of the *Uspekhi Fizicheskikh Nauk* on October 3, 2006!



Vitalii Lazarevich Ginzburg at the Theoretical Physics Seminar¹ in the Conference Hall of the P N Lebedev Physical Institute, Russian Academy of Sciences, Moscow.

¹ We are dealing with the All-Moscow Seminar on Theoretical Physics, which was held under Ginzburg’s supervision at the P N Lebedev Physical Institute from 1956 to 2001 (for more details, see the book *The Seminar: Papers and Reports*. (Compilers: B M Bolotovskii, Yu M Bruk) (Moscow: Izd. Fiziko-Matematicheskoi Literatury, 2006).