IGOR ANDREEVICH BALAGANSKY

PERSONAL DATA

ADDRESS home	Chapligin St., 109, Apt. 1, 630099, Novosibirsk, Russia
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E-MAIL	balagansky@craft.nstu.ru, igor@balaganski.net
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MARITAL STATUS	Married + 2 sons
BIRTH DATE	March 8, 1952
LANGUAGES	Russian, English
CITIZENSHIP	Russia

EDUCATION INSTITUTION

June 1999	Professor, Russian Ministry of Education, Moscow
November 1998	Doctor of Science, Bauman State Technical University, Moscow
June 1984	Candidate of Science, Central Research Institute of Chemistry and Mechanics, Moscow
February 1975	Dipl. Engineer, Gas Dynamic Impulse Devices, Bauman State Technical University, Moscow

EMPLOYMENT HISTORY

July 2015-present	Professor of Gas Dynamic Impulse Devices Department Novosibirsk State Technical University
April 2009-July 2015	Head of Gas Dynamic Impulse Devices Department, Novosibirsk State Technical University
February 2005-April 2009	Professor of Gas Dynamic Impulse Devices Department, Novosibirsk State Technical University
February 1995 - February 2005	Head of Gas Dynamic Impulse Devices Department, Novosibirsk State Technical University
September 1985-February 1995	Assistant Professor, Associate Professor of GDD Department, Novosibirsk State Technical University
March 1975-September 1985	Engineer, Senior Engineer, Junior Research Scientist, Senior Research Scientist of Novosibirsk Institute of Applied Physics

PROFESSIONAL EXPERIENCE

1975-pres.	Research, development, teaching, and expertize in the field of applied problems of explosion and impact physics

PROFESSIONAL SUCCESS

Research and development	Explosion systems based on high explosive charges including high modulus ceramic elements, having sound velocity greater then detonation velocity, is investigated. It was detected that under the some conditions the non-stationary detonation regimes, which are characterized by significant deviation of detonation parameters (velocity and pressure) from Chapman-Jouguet values, are realized in those systems.
Teaching	Since 1985 at Gas Dynamic Device Department I have been teaching specialists in the field of applied problems of explosion and impact physics. I and L.A. Merzhievsky have published the textbook 'Damage Effects of Conventional Warhead Systems'.
Expertise	Member of 2 Dissertation Boards in NSTU, 2000. Federal Expert in Scientific and Technical Sphere, since 2001 to present.

HONORS, AWARDS

Biographical data are included in the 19th Edition of "Who's Who in the World", 2002, and the 7th Edition of "Who's Who in Science and Engineering", 2003, and after Editions.

Research grants:

Russian Foundation for Basic Research, 2006, 2007, 2010, 2014;

Ministry of Education, Russia, 2000;

Association of Russian Technical Universities, 1993;
International Foundation “Cultural Initiative”, 1992.

COURSES TAUGHT

Applied System Analysis
Natural and Industrial Catastrophes
Damage Effects of Conventional Warhead Systems
High Energy Rate Technologies (in English)
Fundamentals of Internal and External Ballistics

RESEARCH PUBLICATIONS AND PATENTS

About 100 publications. Some of them are listed below:

1. I.A. Bataev, K. Hokamoto, H. Keno, A.A. Bataev, I.A. Balagansky, and A.V. Vinogradov, Metallic Glass Formation at the Interface of Explosively Welded Nb and Stainless Steel, Met. Mater. Int., Vol. 21, No. 4 (2015), pp. 713-718.
2. I.A. Balagansky, A.A. Stepanov, Numerical Simulation of Composition B High Explosive Charge Desensitization in Gap Test Assembly after Loading by Precursor Wave, Shock Waves, v.25, no.4, 2015.
3. Bataev I.A., Bataev A.A., Mali V.I., Bataev V.A., Balaganskii I. A. Structural changes of surface layers of steel plates in the process of explosive welding, Metal Science and Heat Treatment, 2014, Vol. 55, iss. 9-10, pp. 509-513.
4. Merzhievskii. L.A., Balaganskii I.A., Matrosov A.D., Stadnichenko I.A. Detonation Transmission through High-Modulus Dispersed Media, Combustion, Explosion, and Shock Waves, Vol. 48, No. 6, pp. 709–712, 2012.
5. Balagansky I.A., Hokamoto K., Manikandan P., Matrosov A.D., Stadnichenko I.A., Miyoshi H., Bataev I.A., Bataev A.A. Mach Stem Formation in Explosion Systems, Which Include High Modulus Elastic Elements, Journal of Applied Physics, 2011.- http://dx.doi.org/10.1063/1.3671063
6. Bataev I.A., Balagansky I.A., Bataev A.A., Hokamoto K. Transformation of Structure in Carbon Steel Specimen under Loading by Mach Stem, formed in Preliminary Compressed High Expolosive Charge TG-40 // Materials Science Forum, Vol. 673 (2011) pp 89-94.
7. Balagansky I.A., Hokamoto K., Manikandan P., Matrosov A.D., Stadnichenko I.A., Miyoshi H., Bataev I.A., Bataev A.A., Stepanov A.A. Study of Energy Focusing Phenomenon in Explosion Systems, which Include High Modulus Elastic Elements, Final Proceedings of the 14-th International Detonation Symposium, USA, 2010, pp. 583-590.
8. Balagansky I.A., Hokamoto K., Manikandan P., Matrosov A.D., Stadnichenko I.A., Miyoshi H. Phenomena of Energy Focusing in Explosive Systems which Include High Modulus Elastic Elements, Proceedings of the 16-th APS Topical Conference on Shock Compression of Condensed Matter, 2009, V.1195, pp. 197-200.
9. Balagansky I.A., Matrosov A.D., Stadnichenko I.A., Glumov A.I., Samsonov A.V. Desensitization of Heterogeneous High Explosives under Initiation through High Modulus Elastic Elements // International Journal of Modern Physics B, Vol. 22 (2008), Nos. 9-11, pp. 1305-1310.
10. Balagansky I.A., Matrosov A.D., Stadnichenko I.A., Glumov A.I., Samsonov A.V. Influence of Inert Copper and Silicon Carbide Inserts on Process of Detonation Transmission through Water // Materials Science Forum Vol. 566 (2008) pp. 207-212. Online at http://www.scientific.net.
11. Balagansky I.A., Balagansky A.I., Razorenov S.V., Utkin A.V. Evolution of Shock Waves in Silicon Carbide Rods // Proceedings of the 14-th American Physical Society Topical Conference on Shock Compression of Condensed Matter, Baltimore, USA, 2006.-P.835-838.
12. Balagansky I.A., Balagansky A.I., Belov Yu.S., Raskatov M.Yu. Influence of the Clearance between Initiating Unit and Main High Explosive Charge on Jet Perforator Efficiency, International Journal of Impact Engineering, 2005, V.32, P.6-13.
13. Balagansky I.A., Merzhievsky L.A. Damage Effects of Conventional Warhead Systems.- Novosibirsk: NSTU Press, 2004.-405 pp.-in Rus.
14. Balagansky I.A., Karanik Yu.A., Agureikin V.A. et al. Fracture Behavior of Explosively Loaded Spherical Molded Steel Shells, Journal of Theoretical and Applied Fracture Mechanics, 2001, 36/2, pp.165-173.
15. Balagansky I.A., Agureikin V.A., Kobilkin I.F. et al. Acceleration Device Based on High Explosive Charge which Contains High Modular Ceramic Tube, International Journal of Impact Engineering, 1999, 22, pp. 813-823.
16. Balagansky I.A., Razorenov S.V., Utkin A.V. Detonation Parameters of Condensed High Explosive Charges with Long Ceramic Elements, The 10-th International Detonation Symposium. Boston, USA. Final Proceedings, 1993, pp. 841-845.
17. Balagansky I.A., Gryaznov E.F. Desensitization of RDX-Charges after Preshocking by Compression Wave in SiC-Ceramic Rod, Zel'dovich Memorial. International Conference on Combustion. Proceedings, V.2, Moscow, 1994, pp.476-478.
18. Balagansky I.A., Agureikin V.A., Razorenov S.V. et al. Influence of High Modular Ceramic Inert Wall on Propagation of Detonation in Condensed High Explosive Charges, Combustion, Explosion and Shock Waves, 1994, V.30, No.5, pp.674-681.
19. Balagansky I.A., Kobilkin I.F., Razorenov S.V., et al. Influence of Wall of SiC Ceramics on Detonation Parameters in High Explosive Charges, The International Symposium on Chemistry of Shock Waves. Proceedings. In: The Papers of V-th Soviet Union Symposium on Detonation.- Krasnoyarsk, 1991, V.2, pp.345-350.-in Rus.