

Boris Nemtsov: the Scientist

The life of Boris Efimovich Nemtsov, a prominent Russian statesman, ended tragically on February 27, 2015. This terrible news has been widely commented and discussed in media throughout the world. It is less known that before going to politics Boris had shown himself as a talented and productive physicist, who received the PhD degree at the age of 25. I was one of his professors and, in spite of the age difference, we were on friendly terms and actively discussed some of his early works. Nonetheless, only recently I saw the list of his scientific publications and was surprised that in a short period he published about 50 papers in refereed journals. Their topics are broad, they treat various problems of acoustics, fluid dynamics, plasma physics, and electrodynamics. In particular, two papers were published in *Acustica/Acta Acustica*. They were submitted in 1991 and accepted in 1993 but published (apparently due to some technical delays) only in 1996 when Boris was already the Governor of the Nizhni Novgorod region of Russian Federation. The first paper suggested a new mechanism of amplification and generation of sound in the process of non-equilibrium condensation of vapor; this can be considered as a possible variant of "acoustic maser." A short version of this work was earlier published in the most prestigious Soviet/Russian journal "Doklady (Reports) of the USSR Academy of Sciences." The second paper (written with A. Kotysov) deals with another type of acoustic-related instability: induced coagulation of particles (such as aerosols) when the density of the particle ensemble can grow exponentially. This idea can be important, e.g., for acoustic cleaning of gases and liquids from impurities. These are only two examples of extremely active and fruitful scientific activity of Boris Nemtsov which was ended early only because he has chosen a brilliant political career. He will always be remembered by very many people.

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B. E. Nemtsov (c. 2006).

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