

---

# Algorithms for solving chemistry tasks for Technical Universities. General Chemistry Laws

© A.M. Golubev, G.Yu. Lomakina, O.I. Romanko, A.D. Smirnov

Bauman Moscow State Technical University, Moscow, 105005, Russia

*Modern methods of teaching chemistry course are considered using an example of algorithms. It is shown that the algorithms can be implemented in the process of studying chemistry when creating formulas and equations, solving and independently preparing experimental and theoretical tasks of different types, in the description of properties of elements and complex substances when establishing a possibility of chemical reactions. Special attention is paid to quantity laws of chemistry (equivalent), the structure of the atom (Mendeleev Periodical system of elements), algorithms of solution of common problems by the equations of redox and other reactions.*

**Keywords:** *the algorithm, chemistry, method, atom, molecule, Mendeleev Periodical system of elements.*

**Golubev A.M.**, Dr. Sci. (Chem.), Head of the Chemistry Department of Bauman Moscow State Technical University. Author of more than 170 publications in the field of physical and inorganic chemistry.

**Lomakina G.Yu.**, Ph.D., Assoc. Professor of the Chemistry Department of Bauman Moscow State Technical University. Senior Researcher of the Department of Chemistry of Lomonosov Moscow State University. Author of more than 50 publications. Field of scientific interests: kinetics of the enzymes, bioluminescent analysis, bioanalytical chemistry, chemical modification of the protein. e-mail: lomakinagalina@yahoo.com

**Romanko O.I.**, Ph.D., Assoc. Professor of the Chemistry Department of Bauman Moscow State Technical University. Author of more than 80 publications in the field of thermal analysis of polymers, research of the liquid-crystalline structure of polymers.

**Smirnov A.D.** (b. 1946) graduated from Lomonosov Moscow State University in 1969. Ph.D., Assoc. Professor of the Chemistry Department of Bauman Moscow State Technical University. Author of more than 60 publications in the field of quantum chemistry and molecular spectroscopy.

---