

Macrokinetics of Combustion of High-Energy Materials

National Research Tomsk State University

Degree or qualification is awarded: **Master's degree**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **no**

Price: **224 400 RUB per year**

Programme webpage at the university website: http://tsu.ru/education/magistratura/magisterskie_programmy.php

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Concentration in energy systems typically entails advanced study of a) thermodynamics, fluid mechanics, heat and mass transfer and combustion; b) the application of these principles to phenomena and devices which constitute energy-conversion systems; and c) the analysis, simulation and design of such systems as well as plants; e.g., chemical, metallurgical, food, etc., which are energy-intensive.

Current research topics include:

plant optimization, fuel cells, cogeneration systems, fluid mechanics and heat transfer in surface mount technology, engine emissions/process effluents and jet engine propulsion systems. Manufacturing and Materials Systems A concentration in manufacturing and materials systems engineering allows students to focus on a broad range of topics. These topics range from micro issues, such as material-related issues and cutting mechanisms in material removal processes, to macro analysis of complex manufacturing systems from either a process or ergonomics perspective.

The focus of this concentration may be computer integrated manufacturing, material processing, mechanical behavior of materials, manufacturing processes, quality systems or ergonomics within manufacturing. Normally, each of these multidisciplinary areas requires certain core courses along with specialized studies, which may include advanced courses in other engineering disciplines, courses in mathematics and statistics and/or courses in business administration.

Admission.

Applicants must have a certificate of higher education (bachelor's degree) or a diploma of a specialist. Applicants are enrolled to the program on a competitive basis following the results of admission tests: an entrance exam and an interview.

Specializations within this programme