RUSSIAN FEDERATION Federal State Autonomous Institution of Higher Education "Kazan Federal University" City of Kazan

BACHELOR'S DIPLOMA

with honors



DOCUMENT OF EDUCATION AND QUALIFICATION

Registration number



Date of issue June 27, 2014 The present Diploma certifies that



completed the Specialist Degree program in 010701.62 "Biology"

and successfully passed Final State Qualifying Examination.

By the decision of the State Examination Board



was awarded the qualification (degree) of

Bachelor of Biology

Protocol No. 1 of June 11, 2014

Chairman of the State Examination Board

Signature

Tolmachev B. T.

Head

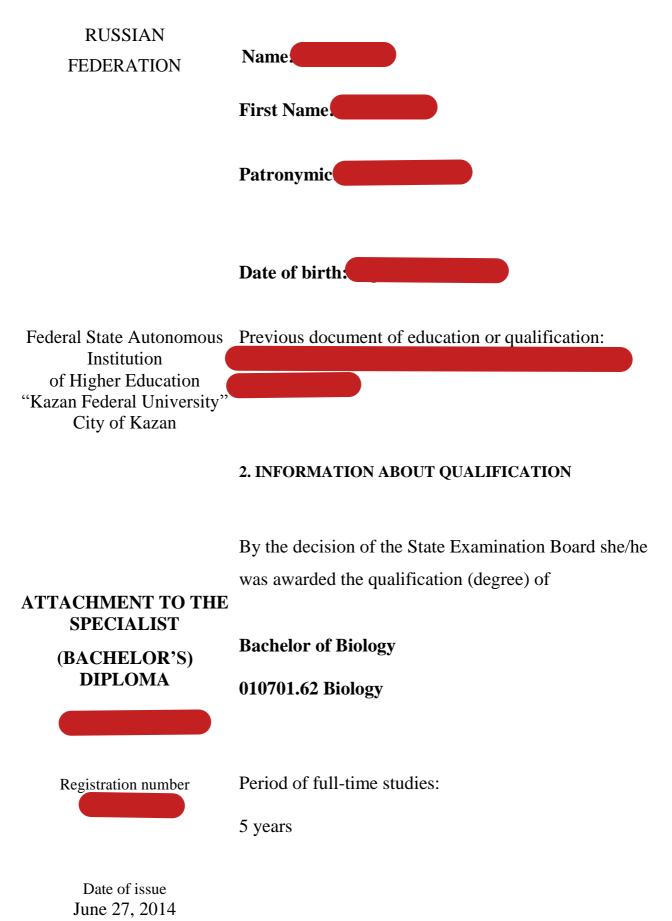
of the Educational Institution

Signature

Gurov P. L.

Seal

1. PERSONAL INFORMATION



Not valid without the diploma

3. INFORMATION ABOUT CONTENT AND COMPLETION RESULTS OF THE SPECIALIST (BACHELOR'S) DEGREE PROGRAM

Program disciplines (modules),	Total credits/	
type of practical training	academic hours	Grade
		11
English Physical Training	340 408	excellent passed
		1
History of Russia	160	excellent
Economics	192	excellent
Philosophy	160	excellent
Sociology	92	passed
Law	92	passed
Russian Language and Standard of Speech	86	passed
Cultural Science	80	passed
Social Psychology	110	passed
Political Science	80	passed
General Physics		
Mechanics	200	excellent
Molecular Physics	200	excellent
Electromagnetism	200	excellent
Optics	200	excellent
Atom and Atomic Phenomena Physics	104	good
Nuclear and Particle Physics	76	excellent
Mathematics	70	CACCHCIII
	480	avaallant
Mathematical Analysis	489	excellent
Analytical Geometry	120	excellent
Linear Algebra	85	excellent
Theory of Probability and Mathematical Statistics	114	passed
Vector and Tensor Analysis	60	passed
Differential Equations	108	excellent
Integral Equations and Calculus of Variations	60	passed
Theory of Complex Variable Functions	114	excellent
Workshop on Physics		
Mechanics (workshop)	114	excellent
Molecular Physics (workshop)	112	excellent
Electromagnetism (workshop)	114	excellent
Optics (workshop)	110	passed
Atom and Atomic Phenomena Physics (workshop)	100	passed
Nuclear and Particle Physics (workshop)	100	passed
Informatics	100	pusseu
Programming	92	passed
Computing Physics	88	excellent
	40	passed
Numerical Methods and Mathematical Modeling	40 70	
Chemistry		passed
Ecology	70	passed
New Information Technologies	150	passed
Discrete Mathematics	150	passed
Theoretical Physics		
Theoretical Mechanics and Continuum Mechanics Basics	160	excellent
Electrodynamics	235	excellent
Quantum Theory	235	excellent
Thermodynamics and Statistical Physics	240	excellent
Methods of Mathematical Physics. Linear and Non-linear Equations in	240	good
Physics		
Life Safety	100	passed
Liquid Physics	50	passed
Statistical Physics of Macromolecules	50	passed
Radio Physics and Electronics	112	excellent
Astrophysics	60	passed
Condensed Matter Physics	84	excellent
Physics of Multicomponent Molecular Systems	180	excellent
Physical Characteristics and Dynamics of Molecules	85	excellent
Physical Principles of Nuclear Magnetic Resonance Methods	170	passed

Nuclear Magnetic Resonance	180	excellent
Nuclear Magnetic Resonance	180	
Structural and Dynamical Characteristics of Molecular Systems and Research Methods	200	excellent
Basics of Magnetic Resonance Imaging	85	excellent
Diffusion and Relaxation in Complex Systems	190	excellent
Porous Media and Fractal Systems	84	excellent
Practical training,	12 weeks	Х
including: teaching training (педагогическая) academic training (учебная) practical placement (производственная) pre-graduation practice (преддипломная) Final state examination,	4 weeks 8 weeks 17 weeks	passed excellent x
including:		
Final qualification thesis in: "NMR study of intermolecular interactions in polymer melts"	х	excellent
Total workload of the study program including student's work performed in collaboration with teachers Optional courses, including:	176.8 weeks 4344 hours	X X
Dynamics of macromolecules	100	passed
Polymer Physics	80	passed
Functional Analysis History and Methodology of Physics	150 75	passed passed
L	1	1

4. TERM PAPERS (PROJECTS)	GRADE
Development of switching power supply of magnet for detection of explosive substance with the use of double NMR-NQR method	excellent
Development of low-frequency NMR spectrometer	excellent

5. ADDITIONAL INFORMATION

In 2010 State Educational Institution of Higher Professional Education "Kazan State University named after V.Ulyanov-Lenin" was renamed to Federal State Autonomous Institution of Higher Professional Education "Kazan Federal University".

Full-time program

Program specialisation: "Polymer Physics"

/Head of the Educational Institution

Signature

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The Attachment to Diploma contains 4 pages

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