AL-FARABI KAZAKH NATIONAL UNIVERSITY: TRANSFORMATION TOWARDS POSITIONING IN THE INTERNATIONAL RANKINGS

Galymkair Mutanov,
Rector;
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First Vice Rector

The Academic Ranking and Advancement of Higher Education: Lesson from Asia and other Region
Taipei, April 18-20, 2012

REPUBLIC OF KAZAKHSTAN

AREA - 2 million 724.9 thousand km²

POPULATION - 16 698 121

THE COMPETITIVENESS OF KAZAKHSTAN

« One of the key solutions to be one of the top 50 counties in the world is to challenge overwhelming changes in Education and Science»

« There must be at least two universities of Kazakhstan in the ranking of the world top universities by 2020 »

N. NAZARBAYEV

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN

- National Scholarship Program, BOLASHAK for studying and training in abroad (PhD and Master program for young scientists) (1993)
- Bolonga process was signed (March,2004)
- Program Funds
  - for inviting international professors
  - for academicals mobility
- New laws that regulate the science and education
  - Education
  - Science
    - Define research priorities by the foreign and national expertise
    - Technology transfer and commercialization of research outputs
  - Entrepreneurship
    - Academic entrepreneurship

THE INNOVATIVE MODEL OF HIGHER EDUCATION OF KAZAKHSTAN

НАЗАРБАЕВ УНИВЕРСИТЕТІ

«Education is important value of success for everybody and the nation. I am sure that Nazarbayev University will train the new generations of scientists and professionals who are qualified to develop Kazakhstan in the 21 century».

N. Nazarbayev

al-Farabi Kazakh National University
founded 1934

AL-FARABI KAZAKH NATIONAL UNIVERSITY

Schools:

- Biology and Biotechnology
- Chemistry and Chemical Technology
- Physics and Technologies
- Mechanics and Mathematics
- Oriental Studies
- Geography and Nature Management
- Journalism
- History, Archeology and Ethnology
- International Relations
- Economics and Business
- Philology, Literature and International Languages
- Philosophy and Political Science
- Law

SCIENTIFIC RESEARCH INSTITUTES (SRI) AND CENTERS: (NATURAL AND TECHNICAL FIELD)

- SRI of Mathematics and Mechanics;
- SRI of Experimental and Theoretical Physics;
- SRI problems of Biology and Biotechnology;
- SRI of Ecology problems;
- SRI of New Chemical Technologies and materials;
- Centre for Physical Chemistry Methods of Analysis;
- Combustion Problems Institute;
- Scientific Technology Park;
- The National Nanotechnology Laboratory;
- The Laboratory of Engineering Profile.

AL-FARABI KAZNU'S STRENGTHS: PROFESSORS

- **AL-FARABI UNIVERSITY**
  - More than 1500 PhD Professors;
  - 70 Winners of Famous International and National Awards;
  - More than 1000 professors were trained at foreign universities;
  - More than 500 visiting international professors
  - Academic cooperation with more than 500 international universities
  - More than 3000 international students from Europe, Asia and the USA in the last 3 years

IMPLEMENTATION
OF THE INTERNATIONAL ACADEMIC STANDARDS

The Bologna Process

- Bachelor, Master and PhD Program
- Credit technologies;
- Internationalization of Education;
- Academic Mobilities of Professors and Students;
- Dual degrees with international universities;
- Competence based modular learning
- Access to the world scientific information database
- Distance learning
- Case study learning
- Studying in English, trilingual studying;

CHARACTERISTICS OF THE RESEACH UNIVERSITY

Modern University

- From teaching ->research ->innovation (entrepreneurial U)
- Research based teaching and innovation – impact on the development of the society
- Leadership is essential
- Sensitive to the regional, state, global challenges
- Serve as platform for industries, private financiers and corporate managers to meet and work on innovation projects

University ranking – good tool for creating transformation plan (changes vision and mission)

TRANSFORMATION INTO THE RESEARCH UNIVERSITY

By orienting the world leading universities' performance indicators

Key areas:

- Corporate Management Structure;
- Academic Program Design and Structure;
- Research Policy and Strategy;
- Social Engagement and Public Relations;
- Internationalization;
- Research Facilities and Infrastructure Development;
- World Recognition and Rankings;

THE UNIVERSITY'S CORPORATE MANAGEMENT POLICY

Management

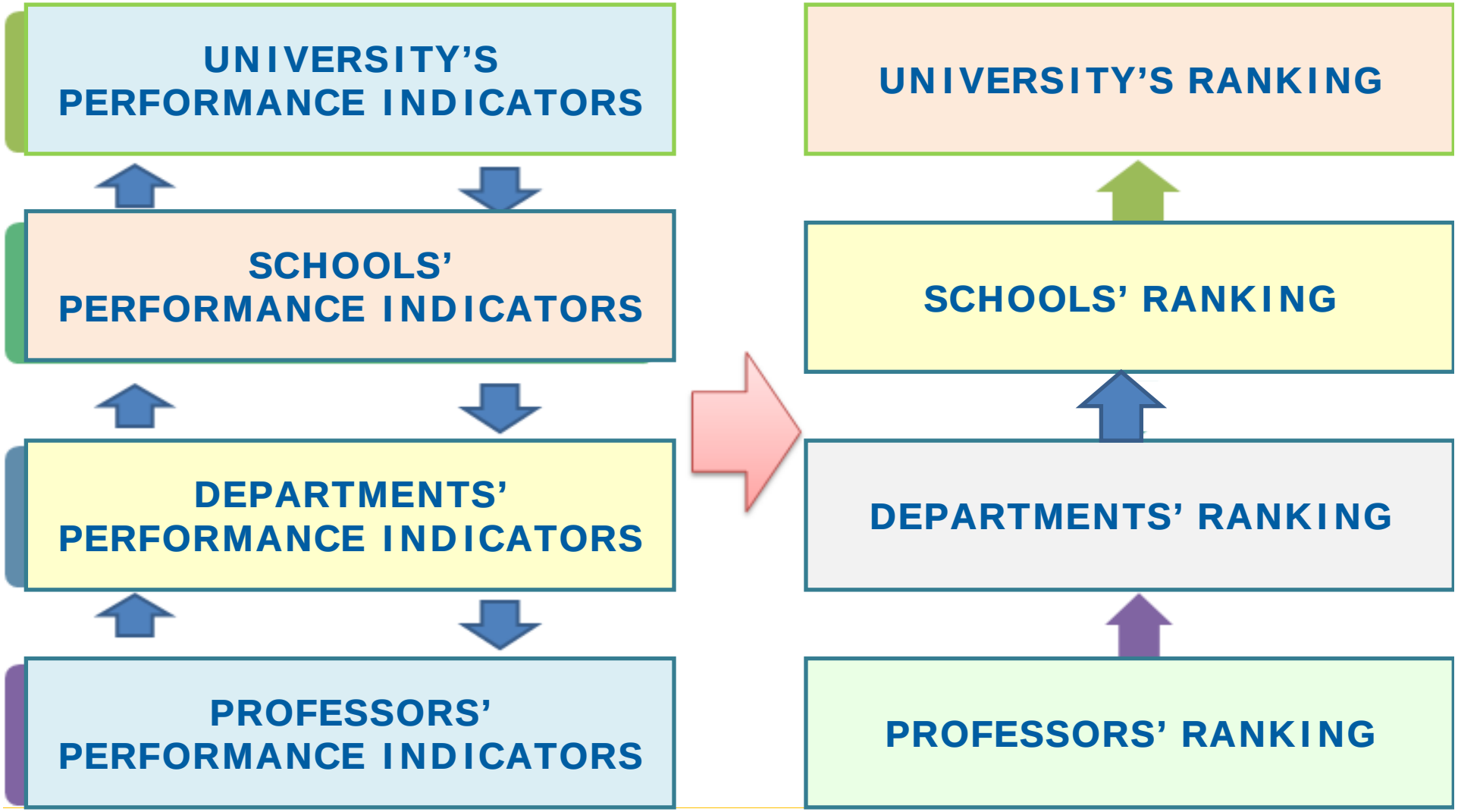
- Decentralization university management
- Operation management
- Empowerment of schools and departments decision making status
- Increasing the role of public stakeholders
- Implementation of result-based management
- Complex structural changes based on cluster approaches;

Rewarding systems

- Increasing salary payment based on ranking performances;
- Continuous improvement system based on Kaizen

RESULT BASED MANAGEMENT

ANNUAL PLAN BASED ON PERFORMANCE INDICATORS



KAZAKH-INDO-AMERICAN PROJECT KIUCEE

International project of cooperation in engineering education IUCEE

unites more than 100 engineering schools

The objectives of the project:

Qualification advancement, training and retraining of the faculty staff on natural sciences and technical disciplines

Tasks:

- Development and implementation of advanced learning technologies
- The academic mobility of the faculty staff and students
- Development of Graduate and Undergraduate Double Degree Programs
- Conduction of international seminars and conferences on innovative learning technologies, exchange of experiences
- Infrastructure enhancement/creation (laboratories, IT, libraries, other)
- Joint R&D basic and applied
- Create/enhance university-government-industry-society partnerships

Goals:

- Training (Qualification advancement) of 75% faculty staff of KazNU on natural sciences and technical majors during 5 years
- Conduction of international KIUCEE Workshops, webinars and online conferences
- Create Graduate and Undergraduate Double Degree Programs

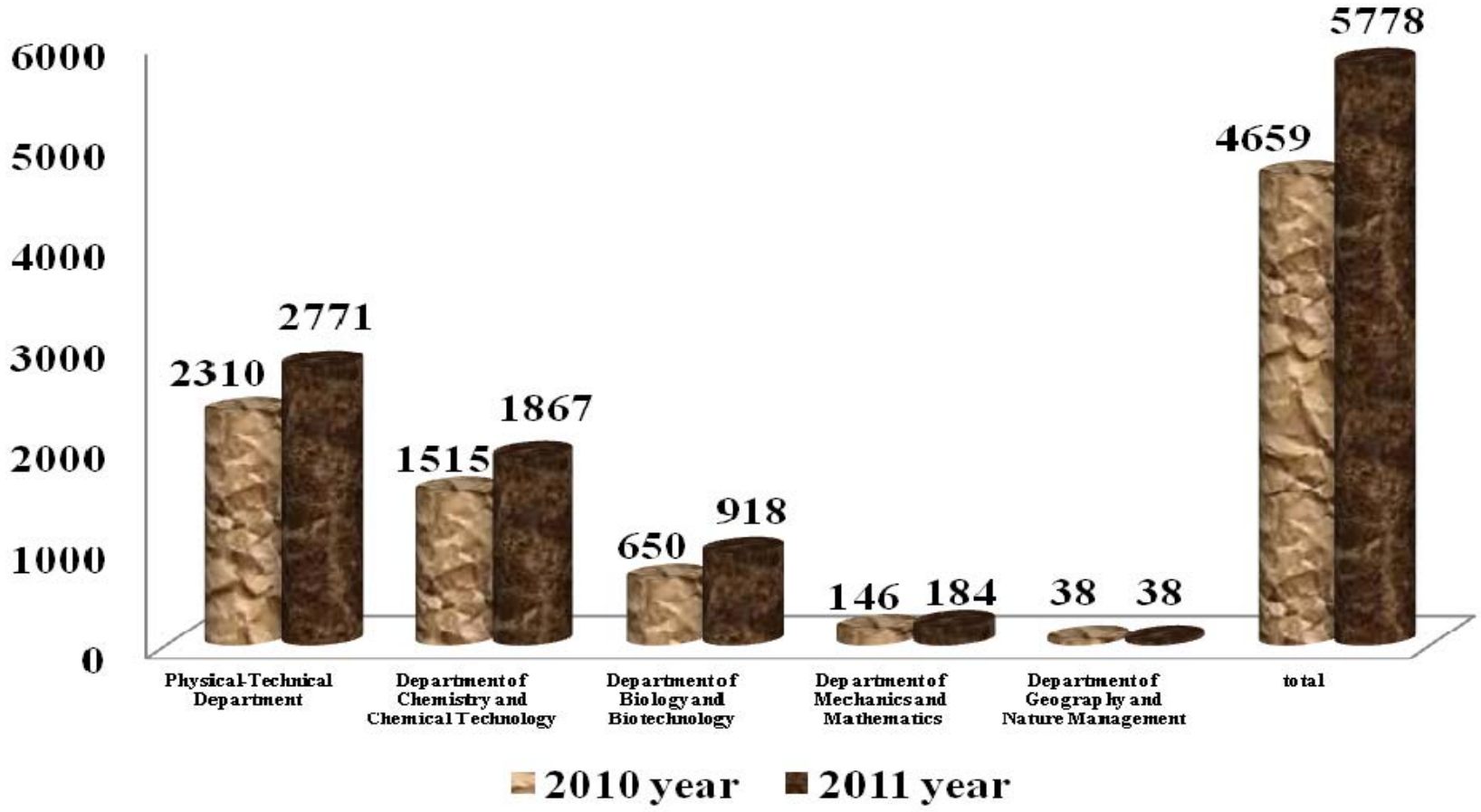
GLOBAL CLASSROOM WITH COLUMBIA UNIVERSITY, USA

- Since October 6th , 2011, KazNU became a partner of Columbia University's program, «Integrated Approaches to Sustainable Development Practice» for Master and PhD course students;
- The program covers 24 universities from the South America, Africa, Asia, Europe and the North America;
- This program is the beginning of dual degree programs with the US universities.

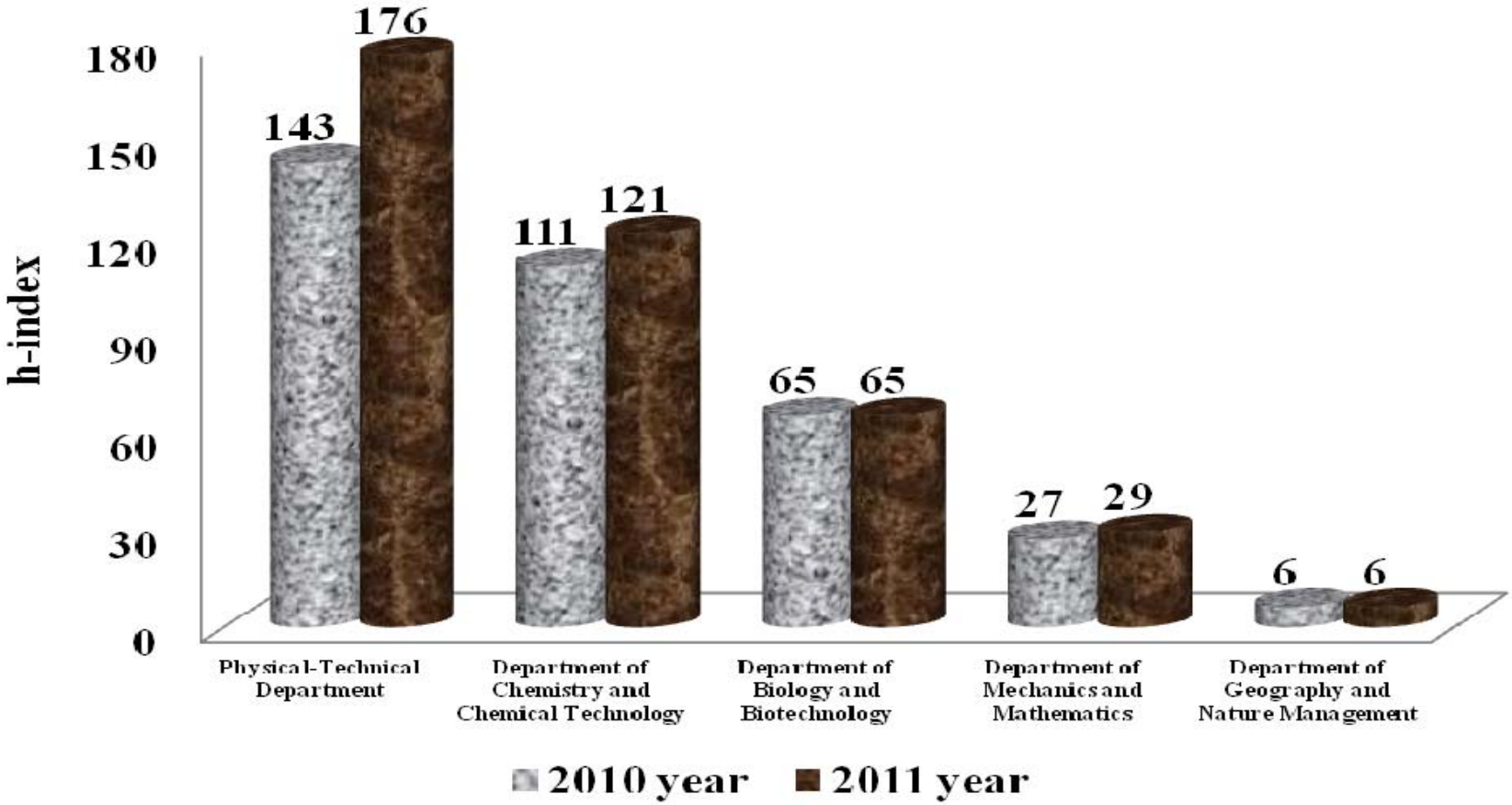
RESEARCH FIELDS OF AL-FARABI KAZNU

- Information Technologies
- Nanotechnology and Materials Science
- Energy Saving Technologies
- Chemical Engineering
- Life Science and Biotechnology
- Pharmaceuticals
- Space Exploration
- Social and Human Science
- Economics and Financial Engineering
- Area Studying

TOTAL NUMBER OF CITATIONS (BY FACULTY (THOMSON REUTERS DATA))



TOTAL H-INDEX BY FACULTIES (THOMSON REUTERS DATA)



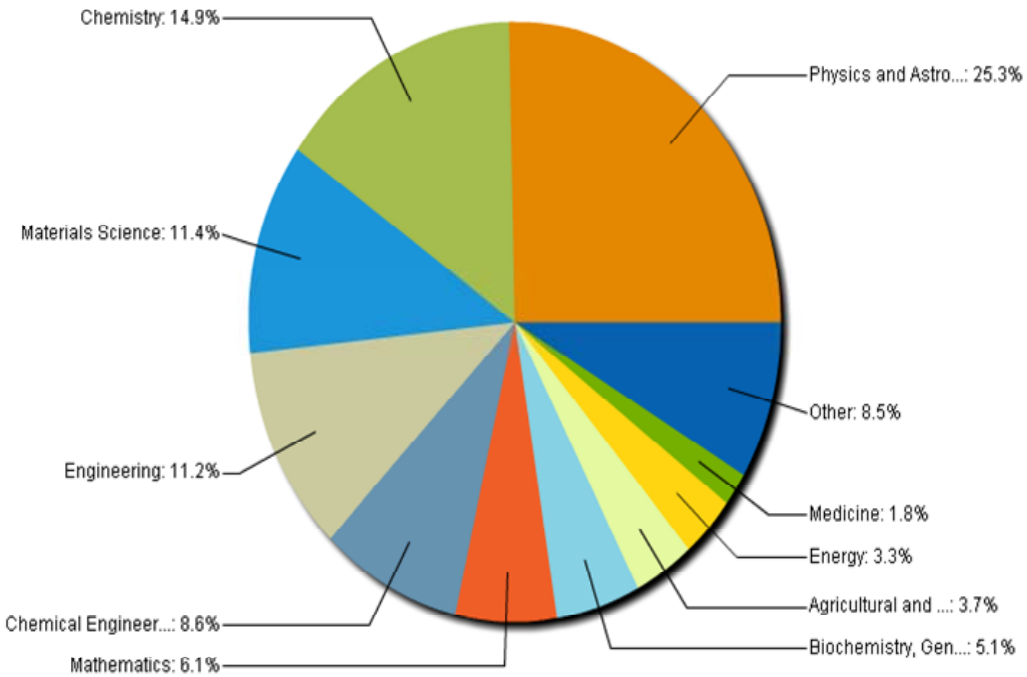
TOTAL ARTICLE OUTPUT BETWEEN 1958-2012

Date range 1958 to 2012 Analyze Document results 965

Year | Source title | Author name | Affiliation name | Country | Document type | Subject area

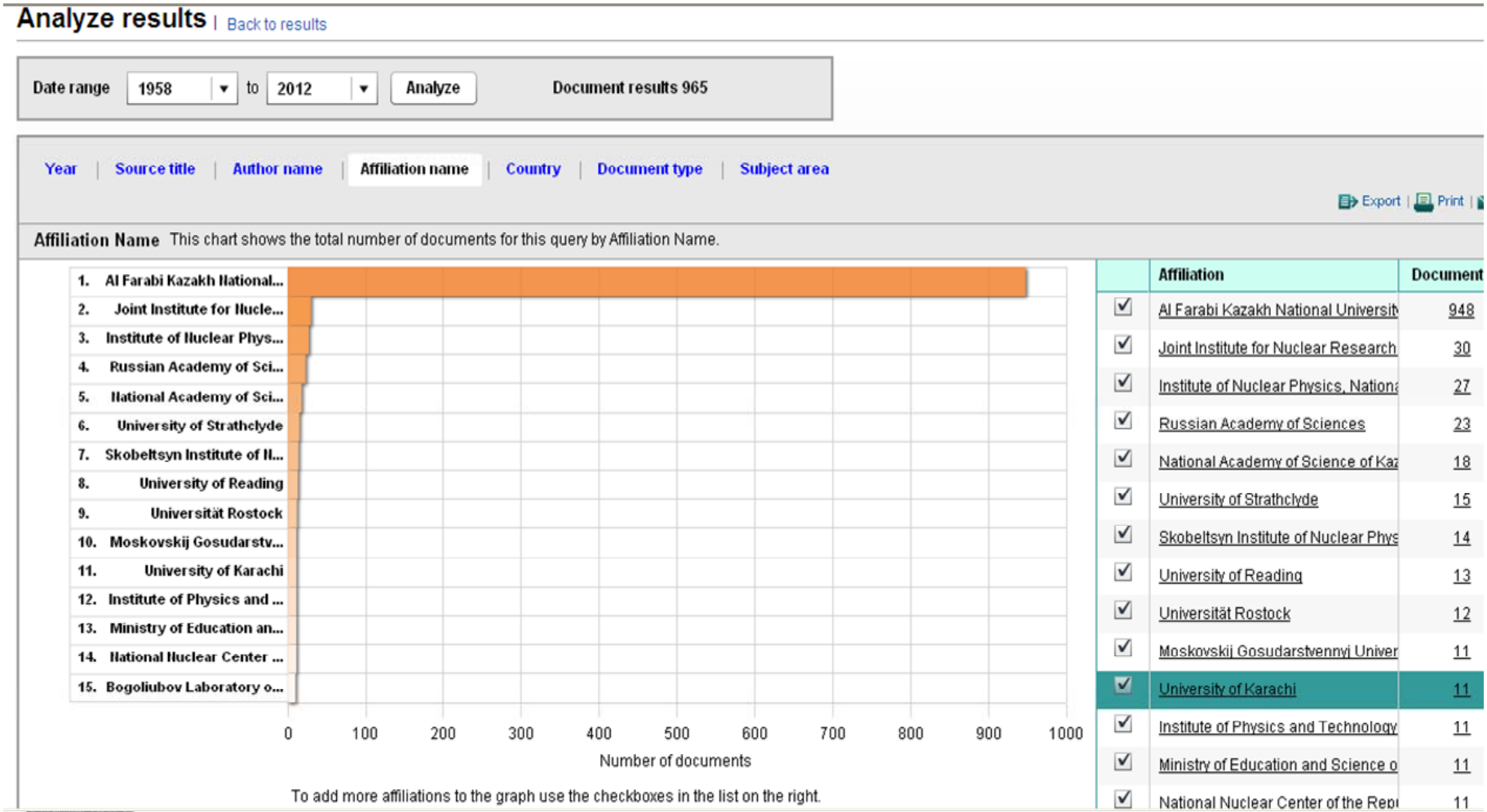
Export | Print

Subject Areas This chart shows the total number of documents for this query by Subject Area.



Subject Area	Documents
Physics and Astronomy	351
Chemistry	206
Materials Science	158
Engineering	155
Chemical Engineering	119
Mathematics	85
Biochemistry, Genetics and Molecular Biology	71
Agricultural and Biological Sciences	51
Energy	46
Medicine	25
Pharmacology, Toxicology and Pharmaceutics	24
Earth and Planetary Sciences	20
Immunology and Microbiology	17
Environmental Science	16

MOST COLLABORATING INSTITUTIONS



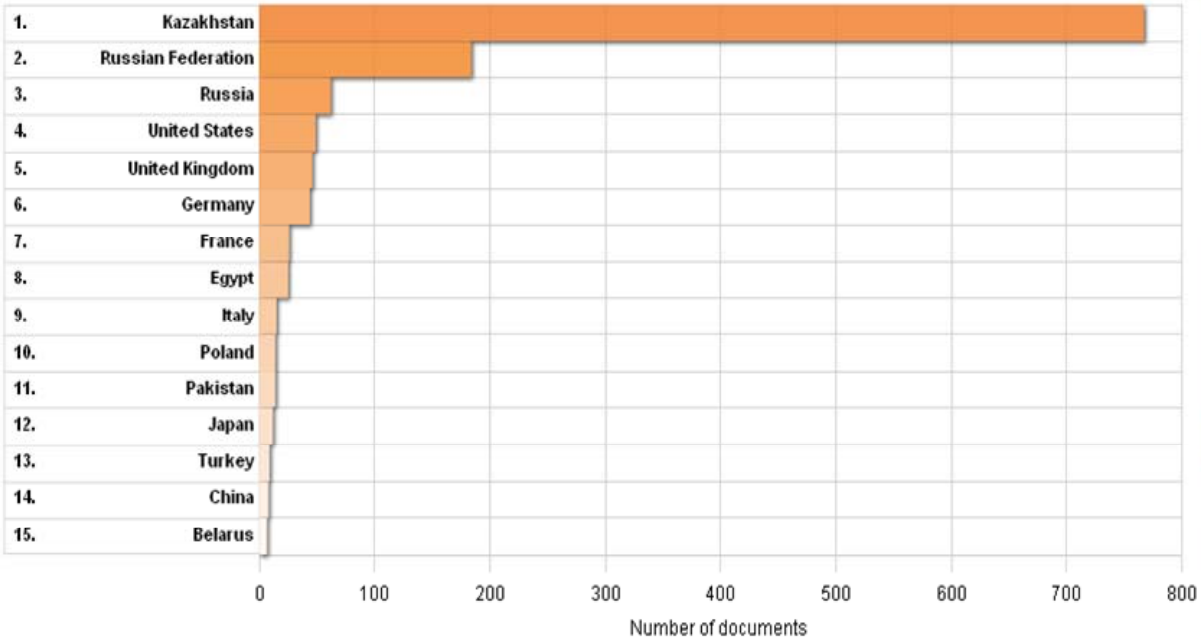
MOST COLLABORATING COUNTRIES

Date range 1958 to 2012 Analyze Document results 965

Year | Source title | Author name | Affiliation name | Country | Document type | Subject area

Export | Print

Country This chart shows the total number of documents for this query by Country.



To add more countries to the graph use the checkboxes in the list on the right.
There are a maximum of 15 countries you can add to the graph.

	Country	Documents
☑	France	26
☑	Egypt	25
☑	Italy	15
☑	Poland	14
☑	Pakistan	14
☑	Japan	12
☑	Turkey	9
☑	China	8
☑	Belarus	7
☐	Uzbekistan	6
☐	Spain	6
☐	South Korea	5
☐	Ireland	5
☐	Ukraine	4
☐	Czechoslovakia	4

RANKING OF AL FARABI UNIVERSITY IN REPUBLIC OF KAZAKHSTAN

Affiliation results: 40

Go to page: 1 of 2 Go | Next >

All
Page

With selected:
Show documents | Give feedback

Sort by Document Count (Descending)

	Affiliations	Documents	City	Country
1	**National Academy of Science of Kazakhstan** Academy of Sciences of the Kazakh SSR Academy of Sciences of Kazakhstan Find potential affiliation matches	1352	Almaty	Kazakhstan
2	**Al Farabi Kazakh National University** Al-Farabi Kazakh National University Kazakh State University Find potential affiliation matches	965	Almaty	Kazakhstan
3	**Ministry of Education and Science of the Republic of Kazakhstan** Ministry of Education and Science Ministry of Education and Science of the Republic of Kazakhstan Find potential affiliation matches	459	Almaty	Kazakhstan
4	**D.V. Sokolskii Institute of Organic Catalysis and Electrochemistry** Institute of Organic Catalysis and Electrochemistry Academy of Sciences of the Kazakh SSR Find potential affiliation matches	235	Almaty	Kazakhstan
5	**Institute of Nuclear Physics, National Nuclear Center of the Republic of Kazakhstan** Find potential affiliation matches	228	Almaty	Kazakhstan
6	**Buketov Karaganda State University** Karaganda State University Buketov Karaganda State University Find potential affiliation matches	161	Karaganda	Kazakhstan
7	**Kazakh Research Institute of Oncology and Radiology** Kazakh. n.i. Inst. Onkol. Radiol. Kazakh Res. Inst. Oncol. Radiol. Find potential affiliation matches	156	Almaty	Kazakhstan
8	**Institute of Chemical Sciences Academy of Sciences of Kazakhstan** Bekturov Inst. of Chemical Sciences	147	Almaty	Kazakhstan

ELSEVIER

INTERNATIONAL COOPERATION

important tool in assurance of education quality and its compliance with international standards.

- More than 200 international agreements with more than 40 countries;
- 385 foreign visiting professors were occupied in our university (trough 2010-2011 academic year);
- More than 170 students, 320 graduate students, 170 PhD doctorates and 430 faculty staff and employees participated in international programs (through 2010-2011 academic year);
- Annually more than 1000 international students study at our university
- More than 200 members joined the International Al-Farabi Friends Club from all around the world;

INTERNATIONAL COOPERATION

Teaching Competency and Infrastructure for e-Learning and Retraining (CANDI)

European-Russian-Central Asian Network of Master's degrees «Informatics as a Second Competence»

•Geoinformatics: Managing Energy, Resources, Environment (GEM)

•«Entrepreneurial University» Model of management relationships between, education, science and innovation

•Establishment of Educational Network of universities on the principle of «Research-Science-Production» PERSEUS

•Central Asian Network for Quality Assurance and Accreditation (CANQA)

INTERNATIONAL COOPERATION

European Commission
ERASMUS
MUNDUS

- **TARGET** - Transfer of Appropriate Requirements for Global Education and Technology
- **TOSCA** - Transfer of skills, knowledge and ideas to Central Asia
- **MANECA** - Mobility Academic Network between EU and Central Asia
- **ARCADE**- Academic Relationship for Central Asia with Destination Europe

INTERNATIONAL JOINT PROJECTS

SCO universities:
Priority directions - Ecology, Nanotechnology and Regional Studies

CIS open network university

UN “Academic Impact” program

Global Classroom – joint project with Columbia University

French-Kazakh "Centre Geo-energies" for research and training

MEMBERSHIP IN INTERNATIONAL ORGANIZATIONS

Eurasian Association of Universities

International Association of Universities

European Society for Engineering Education

IREG – International Observatory on Academic Ranking and Excellence

Magna Charta Universitatum

IAESTE –International Association for the Exchange of Students for Technical Education

Eurasia – Pacific UNINET

al-Farabi Kazakh National University

INTERNATIONAL AL-FARABI UNIVERSITY FRIENDS CLUB

- t**o** broaden **academic and research partnership**
- to promote academic reputation of the university within Kazakhstan and abroad
- **to develop knowledge transfer and spillover among the scientists**
- to provide ongoing consultancy and mentorship in developing academic standards and research outputs
- to offer financial support s for social activities of students
- to donate gifts, presents and money to the university's endowment fund

INTERNATIONAL SCIENTIFIC CENTERS OF KAZNU

- Chinese Language Center;
- Kazakh-Indian IT center;
- The center of the European documents;
- The American and NATO center;
- al-Farabi-Carnegie Project;
- Kazakh-France Center “GEOECOLOGY”

INTERNATIONAL PROJECT WITH SOUTH KOREA: MEDICAL SCHOOL OF AL-FARABI KAZNU

[redacted]

THE INTERNATIONAL ACCREDITATION OF ACADEMIC PROGRAMS OF THE UNIVERSITY

- 10 Bachelor and Master Science and Engineering programs (ASIIN, Germany).

- 10 Bachelor and Master Programs of Human and Social Science (ACQUIN) (under the certification process)

QS WORLD UNIVERSITY RANKINGS

Al-Farabi Kazakh National University

	Rank
QS World University Rankings® 2011	401-450

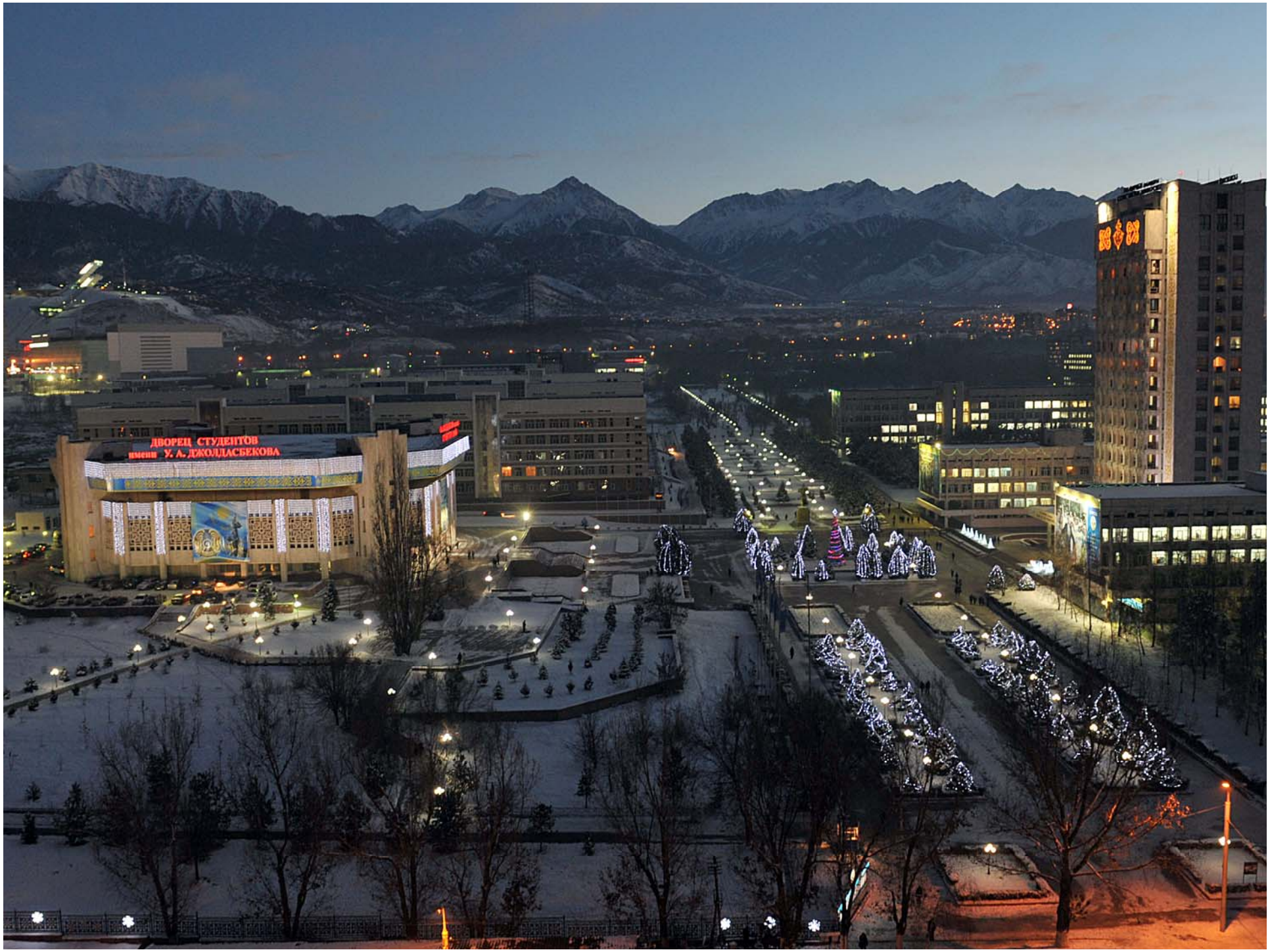
QS STARS
RATED FOR EXCELLENCE
2011

Al-Farabi Kazakh University

QS Stars™

Development Roadmap

LIBRARY


ДВОРЕЦ СТУДЕНТОВ
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Абу Насыр
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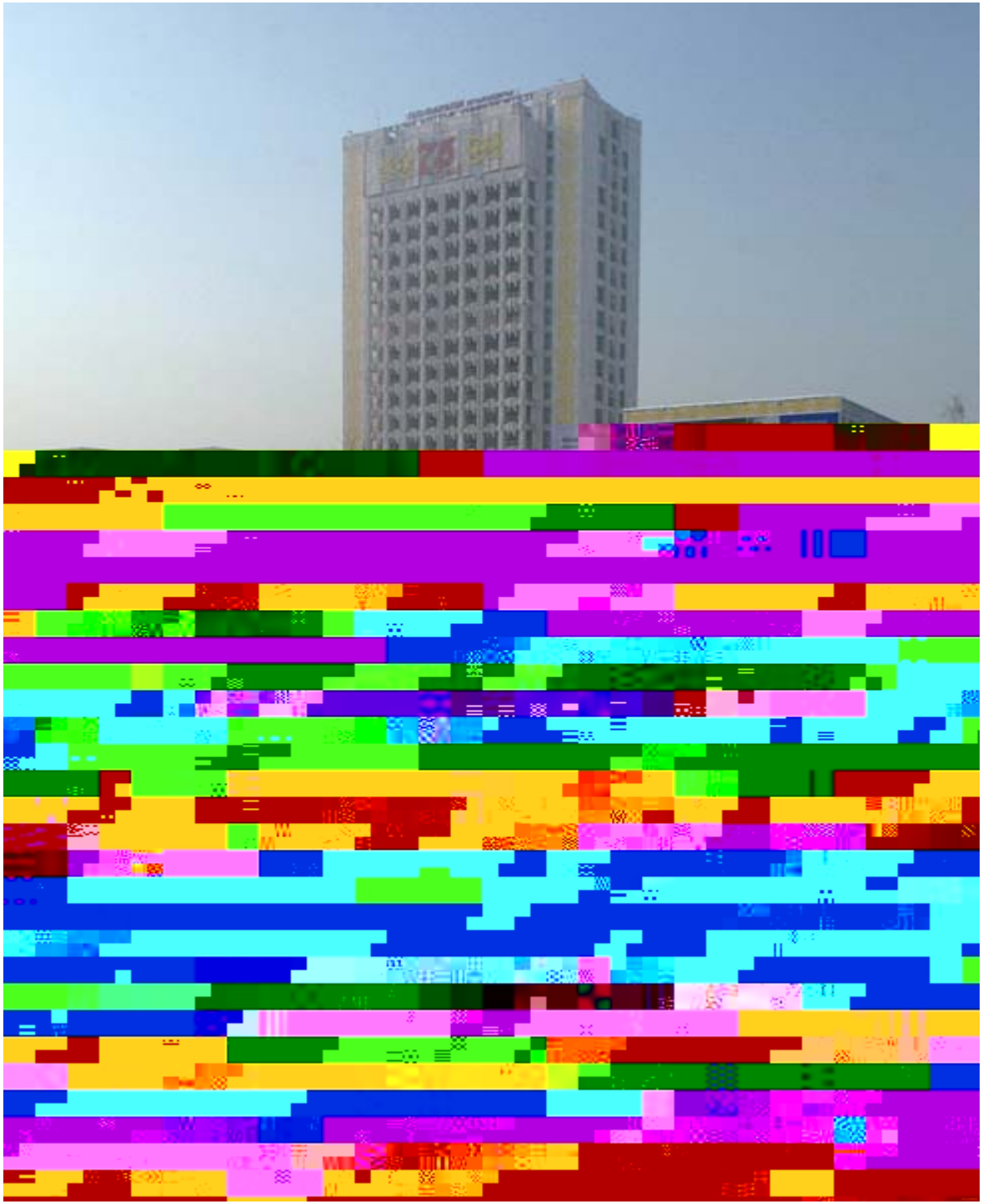

Д.А. ЖОЛДАСБЕКОВ атындағы
СТУДЕНТТЕР САРАЙЫ
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Thank you!!!