PERSONAL INFORMATION **OMAROVA GULDEN**

Republic of Kazakhstan, Karaganda city, Universitetskaya str., 28 a, Academician E.A.Buketov Karaganda
University 4
guldenserikovna@mail.ru

| Date of birth: 04/03/1982

PLACE OF WORK, POSITION

Academician E.A.Buketov Karaganda University, head of the Department of physics and nanotechnology, associate professor

SCIENTIFIC DEGREE, SCIENTIFIC TITLE (ACADEMIC DEGREE)

Doctor of Philosophy (PhD) in the specialty 6D060400 – «Physics»

WORK EXPERIENCE

Place and date

- **2005-2006** – Laboratory assistant of the Department of solid state physics
- **2006-2007** – Engineer of the Department of solid state physics
- **2007-2011** – Lecturer of the Department of solid state physics
- **2011-2012** – Lecturer of the Department of general and theoretical physics
- **2012-2013** – Lecturer of the Department of condensed matter spectroscopy
- **2013-2017** –Senior lecturer of the Department of instrumentation and nanotechnology

-2021 to the present time – charman of the department of physics and nanotechnologies Academician E.A.Buketov Karaganda University

EDUCATION AND PROFESSIONAL TRAINING

Education

– **1999-2003** – Academician E.A.Buketov Karaganda State University, specialty 01.04 – «Physics», qualification – teacher-physicist

– **2003-2005** – Academician E.A.Buketov Karaganda State University, specialty - 510450 – «Physics», qualification – academic degree of Master of Physics (scientific and pedagogical direction).

– **2017-2021** – Academician E.A.Buketov Karaganda University, Doctor of Philosophy (PhD) in the specialty 6D060400 – «Physics».

Professional trainings, Scientific trips

– **05.03.21 –04.04.21** Scientific internship at the National Research Nuclear University (Moscow Engineering Physics Institute).

SKILLS DEVELOPMENT INFORMATION

– Certificate of completion of the advanced training course under the 023 program: «Chemistry of fine organic synthesis; Nanotechnology and new materials; Quantum theory of the structure of molecules; Pulse technologies and the production of nanostructured materials with specified properties» (26.04.2010-15.05.2010, Academician E.A.Buketov Karaganda State University);

– Certificate of completion of the course on the topic «Actual problems of general, theoretical and applied physics» (20.02.2017-25.02.2017, Academician E.A.Buketov Karaganda State University);

– Certificate of completion of the advanced training course under the program «Development and use of multimedia and interactive tools in the educational process and teaching methods in the conditions of credit and distance learning technology» (16.01.2012-11.02.2012, Academician E.A.Buketov Karaganda State University);

– Certificate of completion of the advanced training course under the program «Development of applied teaching materials and teaching methods in the conditions of credit

and distance learning technologies» (05.05.2012-09.06.2012, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of a course of lectures within the framework of the seminar «School of lecturing skills» (23.10.2013-23.05.2014, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of the course on the Thomson Reuters platform «How to publish articles in journals with an impact factor» (22.05.2014, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of a refresher course on the topic «ЖОО оқытушыларының біліктілігін арттыру бағдарламасы» (03.10.2015, MES RK JSC «National Center for Advanced Training «Orleu»);
– Certificate of completion of the webinar on the topic «Integration of modern IT technologies into the professional activity of a higher school teacher» (29.09.2015, JSC «National Center for Advanced Training «Orleu»);
– Certificate of completion of the course in the program «Intensive English Language Course» (23.12.2016-23.06.2017, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of the course on the Springer platform (24.04.2015);
– Certificate of completion of the course on the Springer platform (20.01.2016);
– Certificate of completion of an English course for university teachers (01.11.2016-20.12.2016, Al-Farabi KNU);
– Special seminar «X Annivesary Summer Physics School» (05.07.2017-18.07.2017, S. Toraighyrov PSU);
– Certificate of completion of the course on «Chemistry of solid state materials» (19.09.2017-03.10.2017, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of the course on the topic «Solid State Chemistry» (19.09.2017-03.10.2017, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of the course on the topic «Renewable energy sources and systems. Applied photovoltaics: basics, materials and technology» (23.09.2019-17.10.2019, Academician E.A.Buketov Karaganda State University);
– Certificate of completion of the course on the topic «Physics of nanosystems» (03.12.2019-27.12.2019, Academician E.A.Buketov Karaganda State University);
– Certificate of internship on the topic «Methods of research of physico-chemical properties of substances» (05.03.2021-04.04.2021, Institute of Laser and Plasma Technologies of NRU MEPhI).
– Coursera «English for Science, Technology, Engineering, and Mathematics», University of Pennsylvania от 29.10.2022.

PERSONNEL QUALITIES

Native language **Kazakh**

LANGUAGE	UNDERSTANDING		SPEAKING		WRITING READING
	Hearing	Reading	Oral speech	Hearing	
Russian	Good	Good	Good		Good
	LANGUAGE CERTIFICATE: No				
English	A2	A2	A2		A2
	LANGUAGE CERTIFICATE: No				

Digital skills ADVANCED USER: MICROSOFT OFFICE (WORD, EXCEL, POWER POINT). KNOWLEDGE OF OPERATING SYSTEMS: WINDOWS AND ANDROID

Other skills (hobbies) Reading, keeping a diary

ADDITIONAL INFORMATION

Main publications

1. Омарова Г.С., Ибраев Н.Х., Афанасьев Д.А.Синтез пористых пленок SnO_2 методом электрохимического анодирования. // Вестник Карагандинского университета. Серия Физика. – 2018. – №3(91). – С. 66–73.
2. Ibrayev N.Kh., Seliverstova E.V., Zhumabay N.D., Omarova G.S., Ishchenko A.A. Effect of plasmon resonance of metal nanoparticles on spectral-luminescent properties of polymethine dye // Bulletin of the Karaganda University. Physics series. – 2018. – №3(91). – P. 37-413.
3. Омарова Г.С., Афанасьев Д.А., Ибраев Н.Х. Генерация вынужденного излучения электронно-несимметричного полиметинового красителя в пленках пористого оксида алюминия, допированного наночастицами золота. // Международный научный журнал ISJ Theoretical & Applied Science. – 2019. – №10(78). – С. 351–358.
4. Ibrayev N., Seliverstova E., Omarova G. The influence of plasmons of Ag nanoparticles on photovoltaics of functionalized polymethine dye // Materials Today: Proceedings. – 2019. – Vol. 25. – № 1. – P. 39–43.
5. Ibrayev N.Kh., Seliverstova E.V., Sadykova A.E., Omarova G.S. Плазмон-усиленные сенсибилизированные красителем солнечные ячейки на основе нанокомпозита оксид графена – TiO_2 // Theoretical & Applied Science – 2020. – Vol. 86. – № 06. – P. 586–591.
6. Афанасьев Д.А., Ибраев Н.Х., Омарова Г.С., Кулинич А.В., Ищенко А.А. Спектрально-люминесцентные и генерационные свойства растворов мерацианинового красителя в присутсвии наночастиц серебра // Оптика и спектроскопия – 2020. – Т. 128. – № 1. – С. 63–67.
7. Afanasyev D.A., Ibrayev N.K., Omarova G.S., Kulinich A.V., Ishchenko A.A. Spectral-Luminescence and Lasing Properties of Merocyanine Dye Solutions in the Presence of Silver Nanoparticles // Optics and Spectroscopy. – 2020. – Vol. 128, № 1. – P. 61-65.
8. Ibrayev N.Kh., Seliverstova E., Omarova G.S. Sensitiztion of TiO_2 by merocyanine dye in the prescence of plasmon nanoparticles // INESS-2020: The 8th International Conference on nanomaterials and advanced energy storage systems – Nur-Sultan, 2020. – P. 29.
9. Ibrayev N.Kh., Seliverstova E.V., Temirbayeva D.A., Omarova G.S. Optical properties of ablated graphene oxide in aqueous dispersions // Bulletin of the Karaganda University. – Physics. – 2020. – № 3(99). – P. 6–12.
10. Seliverstova E., Ibrayev N., Omarova G., Ishchenko G., Kucherenko M. Competitive influence of the plasmon effect and energy transfer between chromophores and Ag nanoparticles on the fluorescent properties of indopolycarbocyanine dyes // Journal of Luminescence – 2021. – Vol. 235. – P. 1–7.
11. Ibrayev N., Omarova G., Seliverstova E., Ishchenko A., Nuraje N. Plasmonic effect of Ag nanoparticles on polymethine dyes sensitized titanium dioxide // Engineered Science. – 2021. – Vol. 14. – P. 69–77.
12. Ibrayev N.Kh, Afanasyev D.A., Omarova G.S. Features of stimulated emission of a merocyanine dye in the pores of anodized aluminum // Eurasian Physical Technical Journal. – 2021. – Vol. 18. – № 2(36). – P. 29-34.
13. Ibrayev N.Kh., Seliverstova E.V., Omarova G.S., Ishchenko A.A., Derevyanko N.A., Khamza T.Photovoltaic properties of functionalized indodicarbocyanine dye // Eurasian Physical Technical Journal. – 2021. – Vol. 19. – № 3(41). – P. 55-59.
14. Ibrayev N.,Seliverstova E., Omarova G., Ishchenko G. Sensitization of TiO_2 by merocyanine dye in the presence of plasmon nanoparticles // Materials Today: Proceedings – 2022. – Vol. 49. – P. 2464–2468.
15. Ibrayev N., Seliverstova E., Omarova G., Kanapina A., Ishchenko G. Plasmon Au nanoparticles effect on the spectral and fluorescent properties of indopolycarbocyanine dyes // Materials Today: Proceedings – 2022. – P. 1–5.

h-index (Scopus) – 4
h-index (WoS) – 2

Participation in the implementation of scientific projects

1. «Nanoplasmonics: synthesis of nanostructures, research of properties and modern applications» (Customer – MES RK; 2018-2020; junior researcher);
2. «Functional nanomaterials based on carbon quantum dots» (Customer – MES RK; 2021-2023 гг.; senior researcher);

Membership in professional scientific organizations

No

Awards and titles	No
Courses	1. Basics of nanotechnology 2. Methods for obtaining nanomaterials 3. Selected chapters of Optics 4. Physics
Professional and scientific interests	– Photovoltaics; – Investigation of photophysical processes.

SCIENTIFIC DATABASES IDENTIFIERS

Researcher ID: AAR-2124-2020
ORCID ID: 0000-0003-2900-2168
Scopus Author ID: 56669661100