



**Birimzhanova Dinara
Asylbekovna**

Senior Lecturer,
Department of Chemistry

Contact details:

E-mail:
dinarabirimzhanova@gmail.com

Education, scientific degree and title:

L.N. Gumilyov Eurasian National University (2003), Faculty of Natural Sciences, Department of Chemistry, teacher of chemistry.
L.N. Gumilyov Eurasian National University (2005), Faculty of Natural Sciences, Department of Chemistry, master of chemistry.
L.N. Gumilyov Eurasian National University (2009), Faculty of Natural Sciences, Department of Chemistry, Ph.D of chemistry sciences.

Research interests:

Organic synthesis, fluorescent compounds, chemistry of natural compounds, quantum-chemical calculations.

Research grant program in basic sciences:

- 1) Grant of MES RK «Unusual spectral behavior of molecular and nanoaggregates forms of fluorescent organic compounds and their application in creating analyzers» (2007-2009).
- 2) Grant of MES RK, «Creation of sample products under the brand «Aromas of steppes of Kazakhstan» (2012-2014).
- 3) Grant of MES RK «Phytochemical studies of plants of Kazakhstan and Siberia. Creation of modified derivatives based on mono- and sesquiterpenoids, flavonoids and their bioscreening» (2012-2014).
- 4) Grant of MES RK «Creation of new radioprotector of natural origin» (2012-2014).
- 5) Erasmus Mundos grant, Sweden (2012-2013).

Courses:

Chemistry, theoretical foundations of inorganic chemistry, structure of matter, chemistry of functional derivatives of organic molecules, physico-chemical research methods, fundamentals of chemistry of nanomaterials, spectral methods of analysis of organic molecules, modern problems of general and inorganic chemistry, modern problems of organic chemistry.

Professional experience:

Total work experience – 18.

2010 – present – Senior Lecturer, Department of Chemistry.

2011 – 2018 – Senior Researcher, Institute of Applied Chemistry.

2003-2005 – computer operator of material warehouse of Astana at branch NC «Kazakhstan Railways».

Scientific internships:

2008, 2009 – Hong Kong University of Science and Technology, Hong Kong, China.

2012-2013 - King Royal Institute of Technology, Stockholm, Sweden

Main Scientific works:

1. Zhanzhaxina A.Sh., Suleimen Ye.M., Ishmuratova M.Yu., Iskakova Zh.B., Seilkanov T.M., Birimzhanova D.A., Suleimen R.N. Essential oil of *Pulicaria vulgaris* (*prostrata*) and its biological activity. Bulletin of Karaganda University. Chemistry Series, **2020**, № 3, p. 44-50.
2. Barashkov N., Sakhno T., Mantel A., Aldongarov A., Birimzhanova D., Irgibaeva I. Absorbance and fluorescence spectra of 5-(benzylidene)pyrimidine-2,4,6-triones. //255th American Chemical Society National Meeting. New Orleans, USA, march, **2018**, p. 436.
3. Биримжанова Д.А., Смагулова Ф.М., Шергали Э.К., Сулеймен Е.М. Перспективы применения природных антиоксидантов в качестве радиопротекторов. //1 Международная научно-практическая конференция «Современные проблемы биоматериалов, наноматериалов и наномедицины», Семей, апрель, **2012**, стр.168-170.
4. Liu Y., Tang Yh., Barashkov N.N., Irgibaeva I.S., Lam J.W.Y., Hu R., Birimzhanova D., Yu Y., Tang B.Zh. Fluorescent chemosensor for detection and quantitation of carbon dioxide gas. J. Am. Chem. Soc., **2010**, 132 (40), pp. 13951-13953.
5. Биримжанова Д.А., Барашков Н.Н., Иргибаева И.С. Флуоресцентные красители с внутримолекулярным переносом протона в возбужденном состоянии. //Вестник ЕНУ. – Т. 67, № 6. – С. 129-139.
6. Irgibaeva I.S., Birimzhanova D.A., Barashkov N.N. Research of electronic absorption spectra of benzazoles derivatives by *ab initio*

<p>Honours:</p> <p>2015 – «Science Leader» Independent award winner from the Central Asian region.</p> <p>2018 - 2018 - winner of the independent award «Leader of Science - Web of Science Awards».</p>	<p>calculations. //Inter. J. Quantum Chem. – 2008. – V. 108, № 14. – P.2700-2710.</p> <p>7. Barashkov N.N., Irgibaeva I.S., Birimzhanova D.A. Spectral manifestations and quantum-chemical calculations of molecular and nanosized aggregated forms of 5-(benzylidene)- and 5-(naphthylidene) barbituric acid derivatives. //The 236th American Chemical Society National Meeting. Philadelphia. – 2008. – P. 212.</p> <p>8. Патент №59881 на изобретение «Способ обеззараживания сточной воды путем комбинирования электролитического и фотохимического методов» по заявке №2007/1766.1 от 25.12.2007.</p>
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