



Personal information

First name(s) / Surname(s) Dilafruz Kulmatova
 Address(es) Shayhontohur district, A.Hodjaev str 2-25 Tashkent 100027, Uzbekistan
 Telephone(s) (+99871) 2457229
 Mobile (+99890) 9940046
 E-mail dilafuz2000@hotmail.com
 Nationality Uzbekistan
 Date of birth 08.05.1975
 Gender Female
 Desired employment / Occupational field Researcher

Work experience

Dates	March 2016-July 2016
Occupation or position held	Research Associate
Main activities and responsibilities	Involved in the research project that focused on rheology and stability of complex fluids.
Name and address of employer	Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore-560 064, India
Type of business or sector	Research Institute
Dates	October 2015-up-to date
Occupation or position held	Senior Research Associate
Main activities and responsibilities	Conducting research and guiding students. My duties focus also on assessment of the water quality, improving the monitoring system, use and management of river waters of the Aral Sea basin in Uzbekistan territory.
Name and address of employer	National University of Uzbekistan, Vuzgorodok, Tashkent 100174, Uzbekistan
Type of business or sector	University
Dates	August 2002-August 2007
Occupation or position held	Research Associate
Main activities and responsibilities	Carried out the research project that focused on migration forms of heavy metals in the atmospheric air of cities in arid territories. The results have been published in the peer-reviewed journals as well as international conferences.
Name and address of employer	Scientific-Research and Project Technological Institute "Atmosphere", Xalqlar dostligi street 7a, Tashkent 700000, Uzbekistan
Type of business or sector	Research Institute
Dates	October 2002-September 2003
Occupation or position held	Research Associate
Main activities and responsibilities	Involved in the research project that investigating recycling of thermosetting resin. The result of investigation showed the potential of recycling of other thermosetting resins. The outcome of this investigation has been published in the journal.
Name and address of employer	Tokyo Institute of Technology, Department of Chemical Engineering Ookayama, Meguro, Tokyo 152-8550, Japan
Type of business or sector	Institute

Dates	December 2001-January 2002
Occupation or position held	Worked as an experimental chemist.
Main activities and responsibilities	Conducted quantitative and qualitative analysis of pharmaceutical products. I was responsible for the quality of the drugs.
Name and address of employer	Core Farmsanoat, Uzbekistan-Indian Joint Venture, Quality Control Laboratory, Xodjaeva 40 Tashkent 700187, Uzbekistan
Type of business or sector	Joint Stock Company
Dates	October 2000-April 2001
Occupation or position held	Worked as an engineer of the 2 nd category
Main activities and responsibilities	Involved in the research project that focused on rheological characterization on natural polymers. I was also responsible for the maintenance and calibration of laboratory equipment.
Name and address of employer	Thermal Physics of the Academy of Science of the Republic of Uzbekistan, Laboratory of Multiphase Systems, Katartal 28, Tashkent 700135, Uzbekistan
Type of business or sector	Academia
Dates	September 1998-September 2000
Occupation or position held	Junior Research Associate
Main activities and responsibilities	Agriculture is a key economic sector in Uzbekistan. This economy is solely dependent on the most efficient fertilizer. Worked as experimental chemist on a research project associated with the investigation of most efficient fertilizer used for plant growth.
Name and address of employer	The Institute of General and Inorganic Chemistry of the Academy of Science of the Republic of Uzbekistan, Laboratory of Phosphate Fertilizer, 77A Ulugbek str, Tashkent 100170, Uzbekistan
Type of business or sector	Academia

Education and training

Dates	December 2011-October 2013
Title of qualification awarded	Ph.D in Physics
Principal subjects/occupational skills covered	Physics, Chemical Engineering, Fluid Mechanics, Polymer Chemistry, Material Science of Polymers and Rheology of Complex Fluids.
Name and type of organisation providing education and training	University of Amsterdam, Faculty of Science Amsterdam, Netherlands
Dates	March 2010-October 2013
Title of qualification awarded	Ph.D in Condensed Matter Physics
Principal subjects/occupational skills covered	Physics, Chemical Engineering, Fluid Mechanics, Polymer Chemistry, Material Science of Polymers and Rheology of Complex Fluids
Name and type of organisation providing education and training	Pierre and Marie Curie University-Paris 6, Laboratory of Condensed Matter Paris, France
Dates	January 2008-April 2010
Title of qualification awarded	Enrolled for a PhD
Principal subjects/occupational skills covered	Chemical Engineering, Polymer Chemistry, Material Science of Polymers and Rheology of Polymers
Name and type of organisation providing education and training	Imperial College London, Department of Chemical Engineering London, UK
Dates	September 1993-July 1998
Title of qualification awarded	Bachelor of Science and Master of Science degrees in Chemistry
Principal subjects/occupational skills covered	Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Polymer Chemistry, Colloid Chemistry, Biorganic Chemistry, Analytical Chemistry, Crystal Chemistry, Physics, Higher Mathematics, Kinetics and Catalysis
Name and type of organisation providing education and training	National University of Uzbekistan, Department of Chemistry Tashkent, Uzbekistan

Personal skills and competences

Mother tongue(s) Uzbek

Other language(s) Self-assessment <i>European level</i> (*)	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
ENGLISH	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
RUSSIAN	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
FRENCH	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user
JAPANESE	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(*) Common European Framework of Reference for Languages

Social skills and competences	Good team spirit gaining broad experience in working with international research groups on diverse research projects; Easy adaptation to multicultural environments; Good communication skills developed through participation in workshops, symposia and conferences.
Organisational skills and competences	I have actively participated in organizing seminars, science exhibitions, study trips and educational activities focusing on efforts to inspire young girls to study fields related to science, technology and engineering. Experience in international projects and good ability to work independently in teams.
Technical skills and competences	Good knowledge of analytical, spectroscopic and physical techniques; Certificate: "Management Development Programme on Operation, Maintenance and Repair of Bio-Medical Equipment". Central Scientific Instruments Organization (CSIO), Chandigarh, India.
Computer skills and competences	MS Office, Norton Commander, MS DOS, Corel Draw, Matlab, Origin Pro, Photoshop, Mamcromedia Flash MX
Artistic skills and competences	National Music, Art and Design
Other skills and competences	<p>Attended following courses and lectures provided by the Graduate School of Engineering Physical Sciences (GSEPS) and the English Language Support Programme (ELSP) at the Imperial College London</p> <p>Effective Academic Writing: Creativity& Craft Advanced Presentation and Communication Skills Presenting an Academic Conference Tackling a Literature Review Information Retrieval EndNote Project Project Management for Researcher</p>
Driver Licence	Category B

Additional information

Award and Hounours

JNCASR-CICS Research Fellowship awarded by the Jawaharlal Nehru Centre for Advanced Scientific Research and the Centre for International Co-operation in Science, India (2015)
FOM Fundamental Research on Matter Foundation, Netherlands (2013)
IDB Islamic Development Bank Merit Fellowship, Saudi Arabia (2007)
Research Grant awarded by Halliburton Company, USA (2008)
Research Fellowship awarded by Ministry of Education, Culture, Sports, Science and Technology of Japan in collaboration with UNESCO, Japan (2002)
Fellowship of Indian Technical and Economic Cooperation awarded by Ministry of External Affairs, India (2001)
State Undergraduate and Graduate Scholarships, Uzbekistan (1993-1998)

Research Interest:

Drag Reduction
Turbulence
Polymer characterization
Rheology of complex fluids
Monitoring and protection of underground water resources of Aral Sea basin

List of Publications

1. D. Kulmatova, F. Hadri, S. Guillou and D. Bonn, "Turbulent drag reduction by rigid polymers," *Journal of Non-Newtonian Fluid Mechanics*, under submission, 2016.
2. R. Kulmatov, I. Soliev, D. Kulmatova and M. Groll, "The Modern Problems of Use and Management of Transboundary Rivers in the Aral Sea Basin: Sources and Ways Forward," 7th International Conference on Water Resources and Environment Research, Kyoto, Japan, 2015, accepted.
3. R. Kulmatov, I. Soliev, D. Kulmatova and M. Groll, "Identifying determinants for sustainable fishery in the Aydar-Arnasay Lakes System and incentives they create for changes in country and regional policies," IAAE Inter-Conference Symposium, Almaty, Kazakhstan, submitted, 2015.
4. M. Groll, R. Kulmatov, N. Mullabaev, Christian Opp and D. Kulmatova, "Rise and Decline of the fishery industry in the Aydarkul-Arnasay lake system (Uzbekistan) effects of reservoir management, irrigation farming and climate change on an unstable ecosystem," CDZ Symposium on Lake-catchment interactions and their responses to hydrological extremes, Nanjing, 8-13 October, 2015.
5. R. Kulmatov, A. Rasulov, D. Kulmatova, B. Razulxodjaev and M. Groll " The modern problems of sustainable use and management of irrigated lands on the examples of the Bukhara region," *Journal of Water Resource and Protection*, Vol. 7, pp. 956-971, August 27, 2015.
6. Kulmatova, D.R (2013). Turbulent drag reduction by additives. Amsterdam: Ipskamp Drukkers. p. 108.
7. D. Kulmatova, D. Bonn and H. Kellay, "High Reynolds number turbulence in complex fluids," *Europhysics Letters (EPL)*, Vol. 101 24002, January 12, 2013.
8. R. Kulmatov, C. Opp, M. Groll and D. Kulmatova, "Assessment of Water Quality of the Trans-Boundary Zarafshan River in the Territory of Uzbekistan," *Journal of Water Resource and Protection*, Vol. 5, No. 1, pp. 17-26, January 31, 2013.
9. R. Kulmatov, N. Mullabaev, A. Nigmatov, D. Kulmatova, J. Sobirov, "Qualitative and Quantitative Assessment of Water Resources of Aydar Arnasay Lakes System," *Journal of Water Resource and Protection*, Vol.5, No. 10, pp. 941-952, October 21, 2013.
10. R. Kulmatov, M. Groll, C. Opp, R. Rosen and D. Kulmatova, "Spatial and Temporal Changes of Trans-boundary Pollutants in the Zarafshan River, Uzbekistan," *Water, Air and Soil Pollution*, 2012, in press.
11. R. Kulmatov, A. Azizov and D. Kulmatova, "The crisis of Aral Sea and health of the population in Priarlie," *Central European Journal Occupational and Environmental medicine*, Vol. 1, pp. 52-54, 2008.
12. R. Kulmatov and D. Kulmatova, "Distribution and migration of heavy metals in atmospheric air of the cities", International conference on Nuclear and Radiation Physics, Almaty, Kazakhstan, Vol. 39, pp. 458-460, June 4-7, 2007.
13. R. Kulmatov, D. Kulmatova and A. Azizov, " Development and using radio analytical methods for the analysis of migration forms of pollutants in the main river waters of Central Asia," International conference on Nuclear and Radiation Physics, Almaty, Kazakhstan, Vol. 39, pp. 456-458, June 4-7, 2007.
14. R. Kulmatov and D. Kulmatova, "Involving of the Public in Monitoring and Management of the rivers of the Aral Sea Basin," 9th International River symposium, Brisbane, pp. 54-56, September 4-7, 2006.
15. R. Kulmatov and D. Kulmatova, "Modern Problems of Economy Using Pollution and Management Transboundary Rivers of the Aral Sea Basin," 8th International River symposium, Brisbane, September 6-9, 2005. Paper presentation session 3B.3.
16. R. Kulmatov, D. Kulmatova and M. Umarov, "Investigation of distribution and migration of heavy metals in river waters by radioactivation analysis," 3rd Eurasian Conference on Nuclear Science and its application, the Academy of Science of Uzbekistan, Tashkent, October 5-8, 2004.
17. D. Kulmatova, K. Masatoshi, W. Dang, S. Hideki and T. Ken, "Chemical recycling bisphenol A type epoxy resin based on degradation in nitric acid," 3rd International Symposium on Environmentally Conscious Design and Inverse Manufacturing Tokyo, Japan, pp. 333-338, December 8-11, 2003.
18. R. Kulmatov, D. Kulmatova, H. Mahmud, D. Umarov, H. Kenjaev, R. Tillaev, and R. Alikulov, "Existing forms of heavy metals in system of "gas-aerosol-atmospheric precipitation" in arid zones," 225th ACS National Meeting, New Orleans, Vol. 43, pp. 916-920. March 23-27, 2003.
19. R. Kulmatov, D. Kulmatova, H. Mahmud and R. Tillaev, "Problems of sustainable development of natural water resources in arid zones (on an example of Uzbekistan)," 225th ACS National Meeting, New Orleans, Vol. 43, pp. 207-211, March 23-27, 2003.
20. R. Kulmatov, D. Kulmatova, H. Mahmud and R. Tillaev, "Monitoring and management of river water of the Amudarya, Surkhandarya and the Aral Sea basin," 6th International River Management Symposium, Book of abstracts, Queensland, Australia, September 2-5, 2003. Paper presentation session 3C.3.
21. R. Kulmatov and D. Kulmatova, "Study of heavy metals distribution and migration in atmosphere of cities in the Republic of Uzbekistan by radioactivation analysis," 3rd International Conference "Radioisotopes and their applications," (Book of abstracts), Tashkent, Uzbekistan, pp. 57, October 8-10, 2002.
22. R. Kulmatov, D. Kulmatova and M.Umarov, "The laws of distribution and migration forms of toxic metals in river waters of arid territories," 2nd Eurasian Conference on Nuclear Science and its application, Almaty, Kazakhstan, Sep16-19, 2002.
23. R. Kulmatov, D. Kulmatova and A. Ganiev, "Distribution and migration of toxic metals in river waters in arid territories," 224th ACS National Meeting, Boston MA, USA, pp. 71-72, August 18-22, 2002.
24. R. Kulmatov, A. Azizov, D. Kulmatova and H. Tillaev, "Problems of Sustainable Development of land water resources of the Republic of Uzbekistan," Conference on Sustainable Development of Energy, Water and Environment Systems. June 2-7, 2002, Dubrovnik, Croatia.
25. D. Kulmatova, "Intensive technology of processing of super phosphate from Uzbekistan phosphorites," *Uzbekistan Journal of Chemistry*, Vol. 47, pp. 16-20, Tashkent, Uzbekistan, 2000.