

## PERSONAL INFORMATION

### Marina E. Trusova



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Sex female | Date of birth 19/10/1982 | Nationality russian

## WORK EXPERIENCE

From 2016 to present

Assoc. Prof., Department of bioengineering and organic chemistry, Tomsk Polytechnic University, Tomsk Polytechnic University

2014-2016

Principal researcher, Department of bioengineering and organic chemistry, Tomsk Polytechnic University

2011-2014

Assoc. Prof., Department of bioengineering and organic chemistry, Tomsk Polytechnic University

2009-2011

Assist. Prof., Department of bioengineering and organic chemistry, Tomsk Polytechnic University

2006-2009

Research engineer, Department of organic chemistry and fine organic synthesis, Tomsk Polytechnic University

## EDUCATION AND TRAINING

Replace with dates (from - to)

- 2012  
Advanced professional training  
“Energy efficiency and energy performance in universities”
- 2006 – 2009  
PhD “Organic chemistry”  
Department of organic chemistry and fine organic synthesis,  
Tomsk Polytechnic University, Tomsk, Russia.
- 2002-2006  
Dipl.-Ing. “Chemical technology and bioengineering”  
Department of organic chemistry and fine organic synthesis,  
Tomsk Polytechnic University, Tomsk, Russia.
- 1999-2002  
Process technician “Biochemical engineering”  
Anzhero-Sudzhensk Polytechnic College

Scientific interests

Organic chemistry and organic synthesis, the chemistry of organic heterocations with high reactivity.

Teaching experience

Lecture course: Organic Chemistry  
Manufacturing process drug  
Laboratory courses: Laboratory practice for graduate students  
Manufacturing process drug  
Students research work  
Organic Chemistry

## ADDITIONAL INFORMATION

Projects

- State contract № 02.740.11.03.71 “Development of new nanoscale Tc-labeled pharmaceuticals for medicinal diagnostics” 2009 – 2010

- Grant of RFBR № 09-03-99019 “The surface modification of electrodes and nanoparticles for medicinal application” 2009-2010
- State contract № P33 “Development of biomolecules immobilization on the surface of carbon magnetic nanospheres for medical diagnostics of parasitic disease”, 2011-2012;
- State contract № P1296 “Synthesis of new unique diazonium salts and its application in organic synthesis and material sciences” 2010-2012
- Grant of RFBR №12-03-31594 “First derivatives of stable lipophilic aromatic diazonium salts: synthesis, properties and application in organic synthesis”, 2012-2013.
- State contract № 16.512.11.2127 “Design of systems for diagnostics of infection diseases using hybrid bionanostructures based on magnetic nanoparticles modified by organic functional groups”, 2011-2012
- Grant of RFBR № 14-03-00743a “Preparation, characterization and synthetic applicability of stable arenediazonium sulfonates” 2014-2016
- Commercial agreement for research “The development of new prolonged dosage form of “Halodif” 2012-2013

#### Honours and awards

- The Medal “120 years TPU”
- Diploma of TPU, 2011, 2013
- Diploma of Tomsk region research competition, 2012
- Diploma of national engineering competition “The best engineer of the year 2012”
- Award winner of Tomsk region competition in the field of education and science, 2012
- The best researcher among associate professors of TPU, 2011
- Winner of interuniversity competition with project “The development of new generation of medicinal diagnostic systems based on covalently-modified materials”, 2011
- The bronze medal of TPU, 2006
- Award winner of Tomsk region competition in the field of education and science, 2006

#### Conferences:

- International Conference «Modern Trend in Organic Chemistry», Dombay, 2016
- XIV European Symposium on Organic Reactivity, Prague, 2013
- Franco-Siberian Workshop, Rennes, 2013
- International conference on composite materials, Jeju, Korea, 2011
- International conference on Nanotechnology: Fundamentals and Applications. Ottawa, Ontario, Canada, 2011
- International school and conference “Nanomaterials and nanotechnology in living systems. Safety of nanomedicine”, Moscow, 2011. Invited lecturer.
- International congress on Organic chemistry, Kazan, 2011
- Advanced sciences on organic chemistry, Crimea, Ukraine, 2010

#### List of selected publications:

- Ksenia V. Kutonova, Nicole Jung, Marina E. Trusova, Victor D. Filimonov, Pavel S. Postnikov, Stefan Bräse. Arenediazonium Tosylates (ADTs) as Efficient Reagents for Suzuki–Miyaura Cross-Coupling in Neat Water. *Synthesis ASAP*
- Daniel Cortés-Borda, Ksenia V. Kutonova, Corentin Jamet, Marina E. Trusova, Françoise Zammattio, Charlotte Truchet, Mireia Rodriguez-Zubiri, and François-Xavier Felpin. Optimizing the Heck–Matsuda Reaction in Flow with a Constraint-Adapted Direct Search Algorithm. *Org. Process Res. Dev.*, **2016**, 20, 11, 1979–1987
- Valiev, R.R., Drozdova, A.K., Petunin, P.V., Postnikov, P.S., Trusova, M.E., Cherepanov, V.N. Complex Study of Electronic States and Spectra of 3-Nitroformazans. *Russian Physics Journal*, **2016**, 59, 2, 197-203
- Petunin, P.V., Valiev, R.R., Kalinin, R.G., Trusova, M.E., Zhdankin, V.V., Postnikov, P.S. General and simple method for the synthesis of 3-nitroformazan using arenediazonium tosylates. *Current Organic Synthesis*, **2016**, 13, 4, 623-628
- Khodja, W., Leclair, A., Rull-Barrull, J., Zammattio, F., Kutonova, K.V., Trusova, M.E., Felpin, F.-X., Rodriguez-Zubiri, M. The promoting effect of pyridine ligands in the Pd-catalysed Heck–Matsuda reaction. *New Journal of Chemistry*, **2016**, 40, 10, 8855-8862
- Trusova M. E., Kutonova K. V., Kurtukov V.V., Filimonov V.D., Postnikov P.S. Arenediazonium salts transformations in water media: Coming round to origins. *Resource-Efficient Technologies*, **2016**, 2, 36-42. (review)
- Kutonova, K.V., Trusova, M.E., Stankevich, A.V., Postnikov, P.S., Filimonov, V.D. Matsuda-Heck reaction with arenediazonium tosylates in water, **2015**, Beilstein Journal of Organic Chemistry, 11, pp.

358-362

- Guseynikova O.A., Kutonova K.V., Trusova M.E., Postnikov P.S., Filimonov V.D. First examples of arenediazonium 4-dodecylbenzenesulfonates: synthesis and characterization. **2014**, Russian Chemical Bulletin, 63 (1), pp. 289-290;
- Kutonova, K.V.; Trusova, M.E.; Postnikov, P.S.; Filimonov, V.D.; Parello, J. A Simple and Effective Synthesis of Aryl Azides via Arenediazonium Tosulates. *Synthesis*. **2013**, *45*, 2706-2710;
- Kutonova K.V., Trusova M.E., Postnikov P.S., Filimonov V.D. The first example of the copper-free chloro- and hydrodediazonation of aromatic amines using sodium nitrite, CCl<sub>4</sub> and CHCl<sub>3</sub>. *Russ. Chem. Bull.*, **2012**, 61, 1, 206-208;
- Trusova M.E., Krasnokutskaya E.A. Postnikov, P.S., Choi Y.; Chi, Ki-Whan, Filimonov V.D., A Green Procedure for the Diazotization–Iodination of Aromatic Amines under Aqueous, Strong-Acid-Free Conditions. *Synthesis*, **2011**, 2154-2158;
- Moon, M.E., Choi, Y., Lee, Y.M., Vajpayee, V., Trusova, M., Filimonov, V.D., Chi, K.-W. An expeditious and environmentally benign preparation of aryl halides from aryl amines by solvent-free grinding. *Tetrahedron Lett.*, **2010**, *51*, 6769-6771
- Postnikov P.S., Trusova M.E., Fedushchak T.A., Uimin M.A., Ermakov A.E., Filimonov V.D. Aryldiazonium tosylates as new efficient agents for covalent grafting of aromatic groups on carbon coatings of metal nanoparticles. *Nanotechnologies in Russia*, **2010**, 5, 7-8, 446-449;
- Filimonov V. D., Trusova M.E., Postnikov P.S., Krasnokutskaya E.A., Lee Y.M., Hwang H.Y., Kim H., Ki-Whan Chi. Unusually Stable, Versatile, and Pure Arenediazonium Tosylates: their Preparation, Structures, and Synthetic Applicability. *Org. Lett.*, **2008**, *10*, 3961-3964;

List of selected patents:

- Russian patent “The agent for atherosclerotic plaque deconstructurization” RUS 2469729, 26.08.2011
- Russian patent “Pharmaceutical with diuretic activity” RUS 2416404, 05.10.2009
- Russian patent “The method of nanoparticles modification” RUS 2405655, 04.08.2008