Educational Background and Degree:

M.V.Lomonosov Moscow State University, Moscow, Russia (<u>www.msu.ru</u>) Ph.D. degree, Organic Chemistry, 1987 Dissertation: "Synthesis and Properties of 3-Aryl-1-adamantanols" Advisor: Dr. E.A.Shokova

M.V.Lomonosov Moscow State University, Moscow, Russia (<u>www.msu.ru</u>) Specialist/Master degree, Chemistry, 1983 Thesis "Synthesis and Properties of 3-Aryl-1-adamantanols" Advisors: Dr. E.A.Shokova, Dr. V.V.Kovalev

Teaching Experience:

Widener University, Chester, PA – Spring 2008 - present

General, Organic, and Biochemistry I and II (CHM-101/102) General, Organic, and Biochemistry I and II Lab (CHM-103/104) General, Organic, and Biochemistry for nursing majors (CHM-105) General, Organic, and Biochemistry Lab for nursing majors (CHM-106) Organic Chemistry Lab I and II (CHM-257/258)

Delaware Technical and Community College, Newark, DE Organic Chem I and II (Lecture and Lab) – Summer and Fall 2006, Spring, Summer and Fall 2007 Intro to Organic and Biochem (Lecture and Lab) – from Spring 2004 to Fall 2007 Basic Chem (Lecture and Lab) – Spring, Fall 2005 and Spring 2006

University of South Carolina Spartanburg (now USC Upstate), Spartanburg, SC Fundamental Chem I and II (Lab and Recitation) – Fall 2001, Spring 2002

Thomas Nelson Community College, Hampton, VA General Chem I and II Lab, College Chem II Lab, Co-op General Chem Lab - two chemistry lab sections per semester, Spring 1999 - Fall 2000

Moscow State University, Moscow, Russia Supervisor for student research – Spring 1985

Postdoctoral Training:

Six Sigma course, GE Moscow Office, 1997.

Effective grading workshop, USCS, 2002.

"Modern Practice of Gas Chromatography", Chromatography Forum of Delaware Valley (CFDV), May 2004. "Introductory HPLC Short Course", Chromatography Forum of Delaware Valley (CFDV), May 2004. Lab Safety Training courses "Safety in Science Education", Lab Safety Institute, April 2004; August 2007.

Employment History:

Widener University, Chester, PA Stockroom Manager & Adjunct Faculty, Chemistry Department

Delaware Technical & Community College, Stanton campus, Newark, DE 11/03 – 12/07 <u>Adjunct Faculty & Educational Laboratory Specialist (Chemistry/Biology)</u>, Department of Biology and Chemistry.

- Taught introduction to Organic and Biochemistry" (CHM-111) 12 semesters; "Basic Chemistry" (CHM-100) 3 semesters; "Organic Chemistry I and II "(CHM-240/241) 3 and 2 semesters each. Used Blackboard and Ms PowerPoint for instructions and communications with the students. Trained to use Smart Board.
- Prepared a new laboratory manual for "Intro to Organic and Biochemistry" (CHM-111) course. Wrote 6 new experiments, selected and adapted experiments from the publisher's data base for the course.
- Prepared "Recommended Reading and Problems" brochure for CHM-111 course.

10/07 – present

- Managed the operation of the laboratories and a stockroom. Prepared and distributed specialized solutions, reagents, set-up and take-down of multi-sectional chemistry and biology labs.
- Maintained supplies for lab stockrooms including chemicals, media, glassware, safety supplies and gases. Maintained inventories and MSDS of those items.
- Managed operation of laboratory equipment, including troubleshooting and arranging repairs and annual maintenance; maintain files of operating manuals and warranties, conduct annual chemical/equipment inventory.
- Acted as Chemical Hygiene Officer for the Department, promoting safe working environments in the labs and stockrooms through implementation of chemical hygiene principles, maintaining MSDS files, proper disposal of wastes, and control of biohazards. Trained and supervised the work study students.
- Configured equipment updates for gas chromatography part of Analytical Chemistry (CHM-251) (2005-2006).
- Provided detailed participation in developing plans for chemistry and biology labs renovation, and plans for the future chemistry labs in the Medical Science Building in Stanton.

University of South Carolina Spartanburg, (now USC Upstate), Spartanburg, SC 07/01 – 06/02 Laboratory Manager & Adjunct Faculty, Natural Sciences & Engineering (NSE) Division.

- Taught one chemistry lab section and one recitation per semester (CHM-101, 102).
- Managed and supervised the operation of the laboratories and stockrooms. Prepared and distributed specialized solutions, reagents, set-up and take-down of multi-sectional chemistry and biology labs.
- Maintained supplies for lab stockrooms including chemicals, media, glassware, safety supplies and gases within budgetary constraints. Maintained inventories and MSDS of those items.
- Managed maintenance of laboratory equipment, conducted annual chemical/equipment inventory.
- Acted as Chemical Hygiene Officer for NSE through maintenance of chemical hygiene plan and coursespecific MSDS files. Provided chemical, lab safety, biohazards, and waste disposal training to NSE.

Thomas Nelson Community College, Hampton, VA

Instructional Center Supervisor & Adjunct Faculty, Science, Math, Engineering and Technologies (SMET) Division.

- Taught two chemistry lab sections per semester (CHM-101, 102, 112, 122).
- Selected, ordered and organized the equipment, supplies, instructional and audiovisual materials and computer software in the science complex on and off campus to provide a safe work environment for students learning activities.
- Worked with the department heads of chemistry and biology to plan and coordinate lab experiments and lab schedules. Trained and supervised the lab technicians and work study students, oversaw the preparation of laboratory experiments in chemistry and biology classes.

Freelance translator (Russian, French), VA, MD

Schreiber Translation, Jubilee Tech Trans International, Von Rubin McLaughlan.

- Translated technical, business and legal documents.
- Provided interpretation for the court cases.

Project Manager (Two Half time positions. Moscow, Russia and United States)

FSU Project Manager, GE Corporate Research & Development, Schenectady, NY, USA_10/96-11/97

 Provided interface for CR&D technology transfer programs with Scientific-Technical Centers of Former Soviet Union (FSU).

FSU Project Consultant, 3M Company, St.-Paul, MN, USA

• Provided oversight of international R&D contracts and technology development agreements.

Polycom, Inc. (Innovative Technologies Application Firm) 4/93 – 3/96 (Subsidiary of the Institute of Chemical Physics of Russian Academy of Sciences). Moscow, Russia. Project Manager

 Responsible for management of over 15 projects involving informational searches, organization of joint scientific-research programs and innovative technologies sales from Scientific Institutes and Enterprises of the Former Soviet Union (FSU) to US Industries.

5/99 – 09/01

11/99 – 10/00

5/96-9/97

- Successfully served more than 20 firms in searching technologies in FSU. Partial list of the clients includes: AMP, ARCO Chemical, Air Products & Chemicals, Echlin, Inc., Ford Electronic Division, GE, Rohm & Haas Company, Sandia National Laboratories, United Technologies Corporation.
- Participated in wide range of international R&D contracts and joint development programs.

Laboratory of Analytical Chemistry

12/86 – 6/93

Institute of Geology and Exploration of Fossil Fuels (IGiRGI, Ministry of Fuel Power Engineering of Russian Federation and Russian Academy of Sciences). Moscow, Russia. Research Assistant

- Performed detailed complex analysis of organic components in rocks and petroleum fluids for the purposes of organic geochemistry.
- Applied chromatography and spectroscopy methods to investigate complex mixtures of natural organic compounds.
- Prepared chapters for the reports on more than 15 contracts on oil and gas prognostication, participated in scientific conferences.

Grant:

Faculty grant "Improvement to the laboratory part of CHM-111 course "Introduction to Organic and Biochemistry", Delaware Technical and Community College, 2005, \$1000.

Documents Authorship / Publications:

V.V.Kovalev, I.V.Knyazeva, E.A.Shokova. Synthesis of 3-(alkylaryl)-1-adamantanols. Zh.Org.Khim (1986), 22(4), 776-80.

V.A.Tafeenko, A.E.Prozorovskii, V.V.Kovalev and I.V.Knyazeva. Molecular Structure of 1-(4nitrophenyl)adamantanone-4. M.V.Lomonosov Moscow State University. Zh.Struct.Khim, Vol.28, No.1, 1987, 172-175.

V.V.Kovalev, I.V.Knyazeva, E.A.Shokova. Trifluoroacetic anhydride as a medium for organic reactions. Oxidation of 1-aryladamantanes with nitric acid. Vestn. Mosk. Univ., Ser.2: Khim (1988), 29 (5), 511-14.

V.V.Kovalev, P.A.Sharbatyan, I.V.Knyazeva, V.A.Shmorgunov, E.A.Shokova, P.B.Terent'ev. Mass spectra of 3-substituted 1-aryladamantanes. Zh. Org. Khim. (1988), 24(10), 2121-6.

I.V.Knyazeva, V.V.Kovalev, E.A.Shokova. Method of preparation of p-(1-adamantyl)benzoic acid. Author Certificate of Invention No.1230155 (USSR), priority Oct.05,1984 (restricted, no open publishing).

V.V.Kovalev, I.V.Knyazeva, E.A.Shokova. Method of preparation of 1,3-di(alkylaryl)adamantanes. Application for Author Certificate of Invention No.4100610/04-122018, priority Aug.07,1986.

Research materials of 12/86 – 6/93 (Institute of Geology and Exploration of Fossil Fuels) included into the chapters for the reports on more than 15 contracts on oil and gas prognostication.

During work in Polycom, Inc. (4/93 – 3/96) prepared written reviews on achievements of FSU Science and Technology under the contracts with western firms:

- Catalytic oxidation and epoxidation processes;
- Heterogeneous catalytic alkylation of aromatic compounds;
- Homogeneous catalytic carbonylation processes;
- Novel materials for automotive brakes;
- Porous materials for inert and toxic gases purification (getters);
- Porous material (metals, ceramics) for constructional needs;
- Synthetic diamonds and diamond-like films;
- Cubic boron nitride and CBN-films;
- Polymer materials for common and high-temperature electronics;
- Materials for pressure-, displacement- and RPM-sensors;

• Photonics (fiber optics, integrated optical circuits).

Prepared a new laboratory manual for "Intro to Organic and Biochemistry" (CHM-111) course, DTCC, 2005. Wrote 6 new experiments, selected and adapted experiments from the publisher's data base for the course. M.Bianchi, J.Brady, I.Knyazeva. General, Organic, and Biochemistry Laboratory Manual, Delaware Tech, First Ed., Outernet Publishing, United States, 2005. Now in use Third Ed., Thomson, United States, 2007.

Prepared "Recommended Reading and Problems" brochure for CHM-111 course, DTCC, 2004.

Languages:

English – Fluent; French – Good; Russian – Native.