

CURRICULUM VITAE

LARISSA F. DOBRZHINETSKAYA

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EDUCATION:

Doctor of Science Degree, Moscow University, Supreme Committee of Education, Russia
Ph. D. in geology and mineralogy, Institute of Physics of the Earth, Moscow, Russia
Diploma (M.S.-B.S) in geology and geophysics, Saint Petersburg University, Russia

PROFESSIONAL EXPERIENCE:

Research Geophysicist, Professor of geology and mineralogy – emeritus, University of California at Riverside, since 2015 – present.
Research-geophysicist, professor of geology and mineralogy; the Institute of Geophysics and Planetary Physics, Dep. of Earth Sciences, University of California at Riverside, since 2002 – 2015.
Associate research geophysicist, associate professor, the Institute of Geophysics and Planetary Physics, department of Earth Sciences, University of California at Riverside, 1998-2002.
Fellow of IGPP, Center for Materials Science and Technologies, Los Alamos National Laboratory, 1998.
Visiting international scholar, Institute of Geophysics and Planetary Physics, University of California at Riverside, 1993-1998.
Senior Scientists, Geological Survey of Norway, Trondheim, Norway, 1992-1993.
Lecturer, Geology Faculty, Moscow State University, Russia, 1991-1992.
Leading Scientist, Institute of the Lithosphere, Russian Academy of Sciences, Moscow, 1992-1982.
Senior Researcher, Junior Researcher, Department of Geophysics and Planetary Geology, Institute of Physics of the Earth, Russian Academy of Sciences, Moscow, 1980-1982.

HONORS AND AWARDS:

Elected Fellowships

Fellow of Japanese Society for Promotion of Science, 2005
Fellow of Geological Society of America, 2007
Fellow of American Association for Advancement of Sciences, 2008
Fellow of Mineralogical Society of America, 2008

Other honors and awards

The Who's Who International Professional listed in 2009.
The Who's Who in America listed in 2005.
The International Who's Who in Science and Engineering listed in 2005.
Recipient of 1 year Fellowship from Japanese Society for Promotion of Science, 2004-2005.

Women International Scientific Collaboration Award, AAAS, 2003.
Distinguished Researcher Award, UC Riverside, 2001.
Recipient of Basic Research Program Award, Los Alamos National Laboratory, 1999.
Recipient of Fellowship of Norwegian Council for Scientific and Industrial Researches, 1992-1993.
Goldschmidt's Lectures Series Lecturer, Geological Survey of Norway, Trondheim, 1996.
George Soros Foundation Award for distinguished Russian scientists, 1991.
Exchanged International Scientist Award, Bilateral Finish-Russian program. Geological Survey of Finland, Rovaniemi, Finland, 1987.
Exchanged International Scientists Award, USSR Academy of Sciences – Republic of China Academy of Sciences Cooperation Program, Geological Survey of China, Tjanjin, China, 1984.
Exchanged International Scientist Award, Bilateral USSR Academy of Sciences – Bulgarian Academy of Sciences Cooperation Program, Clement Okhridsky University, Sofia, Bulgaria, 1983.

AFFILIATION:

Member of American Geophysical Union #30001360
Member of Mineralogical Society of America #9067946
Member of Geological Society of America #28702
Member of American Association for Advancement in Sciences #082330982
Member of Mineralogical Society of Russia #LD10087345
Member of Norwegian Geological Society, 1991-1993

EDITORIAL SERVICE:

Editor of the following scientific journals:

Physics and Chemistry of Minerals; Springer, since August, 2015 - present

Board member of the following scientific journals

Editorial Board Member of Journal of Metamorphic Geology, John Wiley & Sons, Inc., since 2012 to present
Editorial Board Member, *Journal of Earth Science*, Springer, since 2008 to present
Editorial Board, *The Open Mineralogy Journal* (on-line peer-review journal), Bentham Open, 2006-2007.

Invited Guest Editor in the following journals

Guest Editor of the Special Issue, 2017, Global and Planetary Change, **Elsevier, - in preparation**
Guest-Editor of Special Issue: "Ultrahigh-pressure and high-pressure metamorphic terranes in orogenic belts: Reactions, fluids and geological processes". 2013. *Gondwana Research*, **Elsevier**, v.23, issue 3 (co-editors: S.W. Faryad, G. Hoinkes, J. Zhang).
Managing Guest Editor for Special Issue: "Mineral transformations in HP-UHP metamorphic terranes: Processes, experiments and observations" 2013, *Journal of Metamorphic Geology*, John Wiley & Sons, v. 31, issue 1 (co-editors: S.W. Faryad, G. Hoinkes).
Managing Guest Editor for Special Issue: "From grain boundaries and mineral properties to understanding Earth dynamics", 2010. *Journal of Earth Science*, Springer, v. 21, issue 5, (co-editors: T. Irifune, J.Zhang).
Guest Editor for Special Issue: "Ultrahigh-pressure metamorphic terranes: Mineral reactions, fluids, microstructures and deformation", 2009. *Journal of Metamorphic Geology*, John Wiley & Sons, v.27.

Managing Guest Editor, Special Issue “Ultrahigh pressure metamorphism: From Earth's interior to mountain buildings”, 2008. *Lithos*, **Elsevier**, 109:145-350, (co-editor: H. Brueckner).

Managing Guest Editor for Special Issue: Multidisciplinary approaches to ultrahigh-pressure metamorphism: a celebration of the career contribution of J.G. Liou. *Journal of Metamorphic Geology*, John Wiley & Sons, v. 25, 79-283 (co-editor - J. Gilotti).

Guest Editor –for the following Books:

Author of the text book: “Minerals and human health”, Cognella Inc. - 2015. p.309.

Managing Editor of the Book: “Ultrahigh pressure metamorphism: 25 years after the discovery coesite and diamond”, p. 500 (co-editors: Farayd, W., Cuthbert, S. and Wallis, S.) **Elsevier**, 2011.

Co-Editor of Book: “Advances in high-pressure technology for geophysical applications”, p.515 (co-editors: Chen, J, Wang, Y., Duffy, T. and Shen, G), **Elsevier**, 2005.

Author of the Book: Minerals and Human Health, Cognella Publisher, 2015, 375pp.

SERVING AS AN EXPERT and PANELIST FOR THE FOLLOWING GRANT AGENCIES:

- (1) The National Sciences Foundation (USA).
- (2) The U.S. Civilian Research & Development Foundation (CRDF).
- (3) The Megagrants – Russian Federation (Russia).
- (4) Lawrence Livermore National Laboratory – University of California (The Lab Fee Research Foundation).
- (5) Israel Science Foundation (ISF).
- (6) European Research Council (ERC).
- (7) ETH – Eidgenossische Technische Hochschule Zurich (the Swiss Federal Institute of Technology, Zurich).
- (8) Marie Curie Actions (Marie Curie Excellence Grants).
- (9) INTAS (the International Association for the promotion of cooperation with scientists from the New Independent States of the former Soviet Union).
- (10) The Research Council of Norway (RCN).
- (11) The International Science Foundation (ISF).
- (12) The National Center of Science and Technology of Kazakhstan (NCST)

CHAIR & CONVENER AT THE FOLLOWING SCIENTIFIC FORUMS:

European Geosciences Union General Assembly. Co-convener of the Session (EMRP1.8/SM2.19/TS3.11): Contribution of high-pressure mineralogy and rheology to the understanding of the Earth dynamics – in memoriam of Harry W. Green II, Vienna, Austria, April 8-13, 2018.

Memorial Symposium - Tribute to Harry W. Green: Earthquakes, Faultings, and Everything about Subducted slabs. University of California at Riverside, November 3, 2017.

International Workshop: Extreme metamorphism: records from ultra-high pressure and ultra-high temperature rocks. (Co-Chair of the session). Northwest University, Xian, China, September 21-25, 2017

International Lithosphere Program Conference: From deep Earth to surface: integrating lithosphere dynamics with rift basins and margins. Chair of the session: “Deep Subduction”; University of Clermont-Ferrand, France; October 2-6, 2016.

American Geophysical Union Fall meeting. Session #2885: "Insight into Earth's mantle and deep subduction processes through accessory minerals and microinclusions". Session Convener and Chair, San Francisco, December 15-19, 2014.

X International Eclogitic Conference, Session: "Minerals Microstructure". Session Chair. Courmayeur, Italy, September 2-10, 2013.

"Roof of the World" Joint Meeting of the Geological Society of America and the Geological Society of China, Session Chair: B-2: UHP metamorphism and oceanic-continental subduction and collision (Oral and Poster). June 17-19, 2013, Chengdu, China.

AGU Fall meeting, Session V51C "From Deep to Shallow: Elemental Cycling Through UHP Metamorphism and Serpentinization", San Francisco, December 3-7, 2012.

GSA Meeting, Session: T56. Phase Transformations and Geodynamics: Mineralogy in Action. Session Convener and Chair; N. Caroline, Charlotte, November 4-7, 2012.

AGU Fall Meeting, Session "Ultrahigh-pressure mineralogy, petrology, and tectonics: New paradigms". San Francisco, December 5-9, 2011.

International Goldschmidt Conference, Session "Deep subduction of crustal rocks into the mantle: observations, experiments, models", Session Convener and Chair; Prague, Czech Republic, August 14-19, 2011.

9th International Eclogitic Conference: Session "Microstructures and chemistry as geodynamic markers of HP/UHP mantle and deeply subducted crustal fragments", Convener and Chair; Mariánské Lázně, Czech Republic, August 6-9, 2011.

AGU Fall Meeting: Session (V24) Ultrahigh-pressure metamorphism: 25 years after the discovery of coesite and microdiamond. Session Convener and Chair; San Francisco, USA, December 13-17, 2010.

Joint Conference of the Task Forces of the International Lithosphere Program: "Solid Earth - Basic Science for the Human Habitat". Session Chair. Potsdam, Germany, October 4-8, 2010.

Conference of International Mineralogical Association (IMA). DE46: Frontiers of ultrahigh-pressure metamorphism and deep subduction: From atomic scales to mountain building. Session Convener and Chair; Budapest, Hungary, August 21-27, 2010.

European Geosciences Union General Assembly: Session GMPV25/GD1.8 Ultrahigh pressure metamorphism and deep subduction: observations on natural rocks and experimental modeling. Session Convener and Chair; Vienna, Austria, 02 – 07 May, 2010.

Goldschmidt Conference: Session 08a Frontiers of ultrahigh pressure metamorphism: mineral reactions, isotope characteristics, phase transformations, fluids and solid state flow. Session Convener and Chair; Knoxville, Tennessee, June 13-18, 2010.

AGU Western Pacific Geophysics Meeting: Session V21B High-Pressure and Ultrahigh-Pressure Metamorphic Processes During Subduction and Collision, Session Chair; Taipei, Taiwan, June 25-27, 2010.

AGU Fall Meeting: V54B and V43D: "New Insight Into Ultrahigh Pressure Metamorphism and Rheology in Collisional Orogenic Belts", Session Convener and Chair; San Francisco, USA, December 14-18, 2009.

Joint Conference of the Task Forces of the International Lithosphere Program. Session: Mantle convection and mineral reactions: from atomic scales to mountain buildings. Clermont Ferrand, France, October 4-9, 2009.

8th International Eclogitic Conference and Ultra-High Pressure Metamorphism Workshop. Convener and Chair; Xining, China, Augusts 25-September 3, 2009.

Joint AGU Assembly, Section: Volcanology, Geochemistry and Petrology. Session: V04 - The Role of UHP-HP Metamorphism in the Evolution of Collisional Orogenic Belts, Session Chair Toronto , Canada, May 24-27, 2009.

AGU Fall Meeting: Session: V21 Frontier of UltraHigh-Pressure Metamorphism and Deep Subduction: From Atomic Scales to Mountain Building, Session Convener and Chair; San Francisco, USA, December 15-19, 2008.

Workshop of the International Lithosphere Program: Session 7: “Lithosphere-asthenosphere interactions, baby-plumes and paleostress”, Session Chair; Ensenada, Mexico, September 24-26, 2008.

AGU Fall Meeting: V21: “Frontiers of ultra-high pressure metamorphism – from atomic scales to mountain building”, Session Convener and Chair; San Francisco, USA, December 5-12, 2007.

33d International Geological Congress: “UHP-03: Ultrahigh Pressure metamorphism – minerals and microstructures”, Session Convener and Chair; Oslo, Norway, August 6-14, 2008.

AGU Fall Meeting: V06 : “A Retrospective and Prospective Look at the Geology, Petrology, Geochemistry and Tectonics of Ultrahigh Pressure Metamorphic Rocks”, Session Convener and Chair; San Francisco, USA, December 5-12, 2007.

International School of Earth Sciences: “Ultrahigh Pressure metamorphism and deep subduction”, Odessa, Ukraine, Session Convener and Chair; September 1-9, 2007.

AGU Joint Assembly, V-51B: "Deep subduction zones metamorphism and rheology: role of fluids". Session Convener and Chair; Acapulco, Mexico, May 22-25, 2007.

International Eclogite Conference, “Deep subduction of continental rocks”, Session Convener and Chair; Paisley, Scotland, June 29-July6, 2007.

Western Pacific Geophysical Meeting, AGU Joint Assembly, “Ultrahigh pressure metamorphism and crustal melting”, Session Convener and Chair; Beijing, China, July 24-27, 2006.

AGU Fall meeting, V43F: “To What Depth Can Continental Crust be Subducted: Observations From Ultrahigh-Pressure Metamorphic Rocks, Experiments, and Numerical Modeling II”, Session Convener and Chair; San Francisco, December 11-15, 2006.

AGU Fall meeting, V53E: “ Ultrahigh-Pressure Metamorphism: Multidisciplinary Approaches and Where to Go III: Petrology and Geochemistry” , Session Convener and Chair; San Francisco, December, 5-10, 2005.

The 7th International Eclogitic Conference (IEC-7): “Diamond from UHPM terranes”, Session Chair; Senggau, Austria, July 3-9, 2005.

AGU Fall Meeting, “Frontiers of Ultrahigh Pressure researches”, Session Convener and Chair; San Francisco, December, 10-15, 2003.

The First International Barents sea Symposium: “Archean Enderbite formations of the Baltic Shield”. Kirkenes, Session Chair; Norway, September 2-8, 1991.

KEY NOTE & INVITED TALKS AT THE FOLLOWING INTERATIONAL FORUMS:

“First Find of 4H-SiC polytype in situ in volcanic rocks of northern Israel.” International Goldschmidt Conference, Prague, Czech Republic, August 16-21, 2015.

"Titanium and Boron nitrides in mantle section of the Tibetan ophiolite: crust-lower mantle interaction." International Workshop: Carbides, Nitrides and Related Materials in Earth, Planetary, and Materials Science. University of California at Davis, USA, May 22-24, 2014.

"Native metals in chromitites and what we can learn from them" International Workshop: Ophiolites, Mantle Processes and Related Ore Deposits. Beijing, China. April 13-15, 2014.

"Mineral microstructures for understanding deep subduction and exhumation". X International Eclogitic Conference, Courmayeur, Italy, September 2-10, 2013.

"Experiments on graphitization of diamond in the presence of water". AGU Fall Meeting, San Francisco, December 3-7, 2012.

"Mantle-crust interaction during deep subduction: records in microdiamonds from UHPM terranes". Geological Society of America meeting, Minneapolis, MN, USA, October 9-12, 2011.

"Fluids in UHPM rocks in deep subduction zones: evidence from diamonds." International Eclogitic Conference, Mariánské Lázně, Czech Republic, August 6-9, 2011.

"Deep subduction of continental crust". Joint Conference of the Task Forces of the International Lithosphere Program: "Solid Earth - Basic Science for the Human Habitat". Potsdam, Germany, October 4-8, 2010.

"Deep carbon reservoir: diamonds from subduction zone in collisional orogens". Deep Carbon Cycling Conference, Beijing, China, April 20-24, 2010.

"Alpe-Arami massif from depth more than 300km: revisited in 15 years". AGU Fall Meeting: session V54B: "New Insight Into Ultrahigh Pressure Metamorphism and Rheology in Collisional Orogenic Belts", San Francisco, USA, December 14-18, 2009.

"Diamonds from ultra-high pressure terranes: a review" European International Summer School in Petrology (ERISPET), Marie Curie Foundation – European Union. Granada, Spain, 29 June – 9 July, 2009.

"Nitrogen cycle: from deep Earth reservoirs to the surface" European International Summer School in Petrology (EURISPET), Marie Curie Foundation – European Union. Granada, Spain, 29 June – 9 July, 2009.

"New geological setting for ultrahigh pressure rocks" Joint Assembly of American Geophysical Union. Toronto, Canada, 24-26 May, 2009.

"Traces of ultrahigh pressure rocks/minerals in unexpected geological settings". Joint Conference of the Task Forces of the International Lithosphere Program. Session: Mantle convection and mineral reactions: from atomic scales to mountain buildings. Clermont Ferrand, France, October 4-9, 2009.

"Nontraditional "deliverers" of UHP rocks from Earth's deep interior to the surface", AGU Fall Meeting, San-Francisco, USA, 2008.

"Recycling of nitrogen and boron into Earth's interior through deep subduction", Workshop of the International Lithosphere Program, Ensenada, Mexico, September 24-26, 2008.

"Fate of Continental crust subducted to the mantle transition zone", Session PED01, 33d IGC, Oslo, Norway, August 5-10, 2008.

"From nanometric inclusions of osbornite (TiN) in terrestrial coesite to mantle convection and storage of nitrogen in Earth's interior." Session UHP03, 33d IGC, Oslo, Norway, August 5-10, August, 2008.

"Osbornite (TiN) and boron nitride nano-inclusions in coesite from Tibet: a first record of nitrogen in a terrestrial ultrahigh pressure environment", AGU Fall Meeting, San-Francisco, USA, 2007

"Diamonds from subduction zones." International School of Earth Sciences, Odessa, Ukraine, September 1-9, 2007.

“Ultra-high Pressure Metamorphic Terrains” International School of Earth Sciences., Odessa, Ukraine, September 1-9, 2007.

“Traces of H₂O in Ultra-high-Pressure Metamorphic Rocks”. AGU Joint Assembly, Acapulco, Mexico, 2007.

“Traces of Continental Crust Components in Earth's Deep Interior”. AGU Fall Meeting, San-Francisco, USA, 2006.

“Diamond and Coesite After Former Stishovite in Tibet Ophiolites: Is That Myth or Reality?” AGU Fall Meeting, San-Francisco, USA, 2006.

“Solubility of Carbon in Si-rich Supercritical Fluid/Melt at High Pressures: Implication for Subduction Zone Diamonds Formation”. Western Pacific Geophysics Meeting (AGU), Beijing, China, 2006.

“A look inside of diamond-growing fluid: observations from natural samples and experiments”. COMPRES Workshop on Synergy of 21st Century High-Pressure Science and Technology. Advanced Photon Source, Argonne National Laboratory, Illinois, USA, 2006.

“Synchrotron infrared and Raman fluorescence spectroscopy of microdiamonds from Erzgebirge, Germany”. COMPRES Workshop on Synchrotron Infrared Spectroscopy for High Pressure Geoscience and Planetary Science. National Synchrotron Light Source, Brookhaven National Laboratory, USA, 2005.

“Nanotechnologies in studying earth materials”. Special Session Tribute to J. Liou”, Stanford University, USA, 2005.

“Inclusions in diamonds from UHPM terranes: a new constraint for depth of subduction and exhumation”. The 7th International Eclogite Conference (IEC-7), Seggau, Austria, 2005.

“Microstructures Developed During Natural and Experimental Decompression of Peridotite From Pressures of 10-15 GPa”. AGU Fall Meeting, San-Francisco, USA, 2004.

“Nanometric inclusions in diamonds: a new constraint for the origin of diamonds in orogenic belts”, 32d International Geological Congress, Florence, Italy, 2004.

“Microstructure and mineral phases precipitated during experimental decompression of majoritic garnet”, 32d International Geological Congress, Florence, Italy, 2004.

“Focus Ion beam technique: implication for microdiamonds”. COMPRES Workshop on Focused Ion Beam Milling, Riverside, CA, 2004.

“Metamorphic diamond breaks a plate tectonic paradigm”. New Concepts in Global Tectonics, International Conference. Denver, Colorado, 2002.

“Inclusions in microdiamonds from UHP-metamorphic rocks: evidence of crust-mantle interaction”. UHPM Workshop. Waseda University, Tokyo, Japan, 2001.

“Alpe Arami: More Pieces of the Puzzle”. Special Session on Ultra-High Pressure Metamorphism. AGU Fall Meeting, San Francisco, 1998.

“Archaen continental crust of the Baltic Shield: petrology and formation of enderbite and charnokite magmatic series”. Barents Sea International Symposium, Kirkenes, Norway, 1993.

GUEST LECTURES:

Northwest University, Xian, China. Microstructures of the UHP minerals – indicators of high pressure. September, 2017.

Waseda University, Tokyo, Japan. SiC- moissanite from unusual geological settings. August, 2016.

Nanjing University, China, School of Earth Sciences and Engineering, “Is moissanite a rare or ubiquitous mineral and what we know about its occurrences in nature?” November, 2015.

The Istanbul Technical University, Faculty of Mines, Geological Engineering Department, *“Minerals and their microstructures: from meteorites and ultrahigh pressure rocks”*. Istanbul, October 26, 2013.

The Istanbul University, Astronomy department, "*Shock metamorphism in Chelyabinsk meteorite*", Istanbul, Turkey, October 25, 2013.

Chukurova University, Department of physics and astrophysics "*Russian meteorite Chelyabinsk: high resolution electron microscopy studies*" Adana, Turkey, October 24, 2013.

Nanjing University, China: "*How do polycrystalline diamonds form in subduction zones?*". Nanjing, China, June 15, 2013.

The China University of Geosciences, Wuhan, China. "*Carbon in extreme conditions: diamond, graphite and fluid*", Wuhan, China, June 25, 2013.

Carnegie Institutions of Washington, Geophysical Laboratory, Washington DC, USA: "*Role of hydrocarbon in transformation of diamond to graphite in presence of water: experimental studies*", February, 4, 2013.

University of British Columbia, Canada: "*Polycrystalline diamonds from subduction zones - observations from the UHPM terranes and experimental data*", February 8, 2013.

Gemological Institute of America, Carlsbad, CA, USA.: "*Diamond – gemstone and scientific material*", May 4, 2012.

University of Colorado, Boulder, USA. "*Small diamonds and big geological concepts*", October, 24, 2012.

Syracuse University, New York, USA: "*Diamonds from UHPM terranes*". April, 4, 2012.

Mineralogical Society of South California, Pasadena, CA: "*Diamond formations in the Earth's interior*", March 5, 2011.

Geological Society of Inland Empire, Riverside, CA: "*Carbon deep cycling – from CO₂ to diamond formation*", April, 12, 2011.

Helmholtz Scientific Center, GeoForschungsZentrum (GFZ) Potsdam, Germany: "*Mantle –crust interaction during deep subduction*", 2011.

GeoForschungsZentrum (GFZ) Potsdam, Germany: "*Experimental studies of Ca-Esk component in Cpx at 6-12 GPa and 900-1200oC: revisited*", 2010.

Charles University, Czech Republic: "*Experimental synthesis of pyroxene at high pressures and temperatures: implication for deep mantle geobarometry*", Prague, Czech Republic, 2010.

Institute of Geodynamics of Charles University, Czech Republic: "Nitrogen in deep Earth: why should we care about it?" Prague, Czech Republic, 2010.

Institute of Geophysics, Czech Academy of Sciences: "*Fate of continental crust subducted to mantle transition zone: experimental studies and implication for deep Earth's geophysics*". Prague, Czech Republic, 2010.

University of Bratislava: "*Diamonds and crustal carbon reservoirs in Earth 's interior*". Bratislava, Slovakia, 2010.

China University of Geosciences: "*Ultrahigh pressure mineralogy: combining experiments with observations in natural UHPM terranes*", Wuhan, China, 2009.

China University of Geosciences: "*25 years after first discovery of coesite and diamonds in metamorphic rocks of continental affinities*", Wuhan, China, 2009.

Nanjing University: "*Ultrahigh Pressure metamorphic terranes: new achievements during 25 years*", Nanjing, China, 2009.

Nanjing University: "*Global circulation of Carbon, Hydrogen and Nitrogen: implication for deep Earth's reservoirs*", Nanjing, China 2009.

GeoForschungsZentrum (GFZ) Potsdam, Germany: “*Nitrogen in deep earth – why should we care*”, 2009.

The Institute of Geophysics, Polish Academy of Sciences, Warsaw, Poland: “*Ultradeep subduction of continental crust*”, 2008.

The Institute of Geological Sciences, Polish Academy of Sciences, Warsaw, Poland: “*Ultra-high pressure terranes*”, 2008.

The University of Hiroshima, Hiroshima, Japan: “*Traces of H₂O in diamonds –evidence of a supercritical fluid operating during deep subduction of continental crust*”, 2008.

The University of Hiroshima, Hiroshima, Japan: “*Nitrogen in deep Earth – why do we care?*”, 2008

The University of Tokyo, Tokyo, Japan: “*Osbornite, c-Boron Nitride and TiO₂-II inclusions in coesite from terrestrial rocks*”, 2008.

Universität Bayreuth & Bayreuth Geoinstitute - Bayreuth, Germany: “*Terrestrial Osbornite and Boron Nitride Nanoinslusions in Coesite: Implication for Nitrogen Storage in Earth’s Interior*”, 2007.

The University of Saint Petersburg, Saint Petersburg, Russia: “*Advancements in studies of nanoscale mineralogy*”, 2006.

The Institute of Precambrian Geology and Geochronology, Saint Petersburg, Russia: “*Fate of continental crust subducted to Earth’s mantle transition zone: experimental studies*”, 2006.

GeoForschungsZentrum, Potsdam, Germany: “*Continental Material in Earth’s Mantle Transition zone: Myth or Reality?*” 2006.

University California Berkeley “*Microdiamonds from orogenic belts related to continental collisions*”, 2006.

The University of Iowa: “*Diamonds in orogenic belts: from natural samples to experimental synthesis*”, 2005.

The University of Tokyo, Japan: (1) “*Nanometric fluid and solid inclusions in diamonds from UHPM terranes* (2) “*Delta 13C measurement in microdiamond in thin sections using nanoSIMS Cameca-50*”, 2005.

The Tokyo Institute of Technology, Japan: “*Focused Ion beam and Synchrotron-Related Studies of Microdiamonds: How Do They Work?*”, 2004.

Waseda University, Tokyo, Japan: “*Ultrahigh Pressure Metamorphism: What is next?*”, 2004.

Utrecht University, The Netherlands: “*Microstructure of majoritic garnet reproduced in experiments during decompression*”, 2004.

Ruhr-University, Bochum, Germany: “*Mechanism of diamond crystallization: experiments on diamond synthesis, induction time and kinetics*”, 2003.

Mineralogical Society of Bulgaria, Sofia, Bulgaria: “*Focused Ion Beam and Transmission Electron Microscope Studies of Nanoscale Solid and fluid Inclusion in Clinopyroxenes from Sulu Garnet Peridotite , China*”, 2003.

The Climent Okhridsky University, International Lecture Series Seminar, Sofia, Bulgaria; “*Ultrahigh-pressure mineralogy: is subducted continental crust buoyant at depth 250-400km?*”, 2003.

The Institute of Atomic Energy, Bulgarian Academy of Sciences, Quantum Field Theory Seminar, Sofia, Bulgaria: (1)“*Nanoscale fluid inclusions in diamonds: a message from nature that diamond may be crystallized from carbon and water*” ; (2) “*Experimental studies of diamond synthesis from organic carbon and graphite in presence of H₂O at high P and T conditions*”, 2003.

GeoForschungsZentrum (GFZ) Potsdam, Germany: “*Analytical Nanotechnologies to Study Nanoinslusions in Microdiamonds: synchrotron radiation, nanoSIMS, Ion Probe, Focused Ion Beam and Transmission Electron Microscopy*”, 2003.

Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing, China: *"Focused Ion Beam techniques – a novel approach for TEM studies of nanometric inclusions"*, 2002.

The University of Southern California: *"Mechanisms of graphite transformation to diamond: does hydrogen break sp^2 graphite bonding?"*, 2002.

The University California, Los Angeles, CA: *"Diamond synthesis in laboratory from graphite in presence of H_2O : implication for origin of subduction zone diamonds"*, 2002.

The Russian Mineralogical Society, Saint Petersburg, Russia: *"Carbon-hydrogen interaction in deep subduction zones: evidence from microdiamonds"*, 2001.

Moscow University, Russia: *"Titanoclinohumite – a potential water storage in mantle transition zone"*, 2001.

Stuttgart University, Germany: *"Titanoclinohumite synthesis at pressures 10-14 GPa and temperature 1100-1500 K – one more hydrous mineral is stable at extreme conditions"*, 2000.

Los Alamos Geological Society, New Mexico, *"Microdiamonds from continent-continent collision zones"*, 1999.

New Mexico State University, Las Cruces, New Mexico: *"Unusual diamond formation from metamorphic gneisses of continental affinities: Kazhakstan, China and Norway"*, 1999.

The University of Texas, El Paso, Texas: *"Solubility of TiO_2 in olivine: experimental studies in multianvil apparatus at $P=7-14$ GPa, $T=1300-1700K$ "*, 1999.

Los Alamos National Laboratory, Seminar of Material Sciences and Technologies: *"What is inside of small diamonds? How to study them?"*, 1998.

Bonn University, Germany: *"Unusual olivine with rods of ilmenite and chromite in Alpe Arami garnet peridotite: origin from 300 km?"*, 1996.

The University of California at Santa Barbara, CA: *"Ilmenite and chromite oriented rods in olivine from Alpe Arami garnet peridotite: evidence of 300 km deep origin"*, 1995.

Stanford University, CA, U.S.A: *"The microdiamond discovery in metamorphic rocks of the Fjortoft Island, Norway: implication for deep subduction of continental crust"*, 1994.

The British Geological Survey, Nottingham, UK: *"Water in microdiamonds from deep subduction zone – evidence from infrared studies"*, 1993.

The University College, London, UK: *"Infrared spectroscopy studies of nitrogen aggregation in microdiamonds from Western Gneiss Region, Norway"*, 1993.

The University of Leeds, UK: *"Discovery of microdiamonds in Western Gneiss Region of Norway: evidence of deep subduction of continental material"*, 1993.

The Bergen University, Bergen, Norway: *"MicroRaman Spectroscopy – a technique for determinations of microdiamond and coesite in ultra-high pressure metamorphic rocks"*, 1993.

Geological Society of Norway, Trondheim, Norway: *"Charnokite formations – source of potassium in Early Earth"*, 1992.

Geological Survey of Norway, Trondheim, Norway: *"Methods of Microdiamond Extraction from Ultrahigh-Pressure Felsic Gneiss and Eclogites"*. 1992

The University of Helsinki, Finland: *"Eclogitic Belts Related to Continental Collision - a new occurrence for microdiamond formations"*, 1992.

Geological Survey of Finland, Espoo, Finland: *"Microstructure of olivine in mantle peridotite of Mesozoic Ophiolite Formation, Russian Far East"*. 1991

Peking University, China: *"Are eclogites too strong for a solid state flow?"*, 1991.

TEACHING:

Undergraduate courses: Igneous and Metamorphic Petrology; Mineralogy, Optical Mineralogy, Discovery Seminars, Minerals and Human Health (environmental mineralogy). Graduate courses: (i) mantle petrology and mineralogy, (ii) ultrahigh-pressure experimental mineralogy, (iii) carbon recycling and sequestration in deep subduction zones, (iv) Raman and infrared spectroscopy in mineralogy, (v) ultra-high pressure experiments and direct researches. Member of Ph. D. Qualification Committees, University of California at Riverside.

PROFESSIONAL NATIONAL AND INTERNATIONAL SERVICE:

Chair of Task Force V: "Fate of the subducted continental lithosphere – insights through analytical mineralogy and microstructure". International Lithosphere Program, IUGS: 2016 - 2020.

International Lecturer: Nanjing University, China, October 03 -December 30, 2015.

Chair of Task Force IV: "Collisional orogenic belts: from atomic scale to mountain building". International Lithosphere Program, 2010-2014.

Vice-chair of the working group: "Minerals equilibrium", International Mineralogical Association (IMA) of IUGS: 2010-2014.

International lecturer: China University of Geosciences, Wuhan, May-June, 2013.

Member of Student Awards Committee, Mineralogical Society of America, 2010-2012.

Chair of American Geophysical Union Education and Outreach Committee: 2009-2011.

Lecturer at International Summer School of Petrology - Marie Curie Foundation, European Union, EURISPET, June-July, Granada, Spain, 2009.

Organizing Committee of International Lithosphere Workshop in Ensenada, Mexico, Sept. 24-26, 2008.

Business Session Curator: Task Force IV of the International Lithosphere Program – report on 2007-2008 activity at the 33d International Geological Congress, Oslo, Norway, August 6-14, 2008.

Proposed and Organized 4 sessions (UHP03, UHP04, UHP05 and UHP06) at 33d International Geological Congress, Oslo, Norway, 2008.

Member of the Science-Engineering-Technology Working Group (SETWG), 2008.

Participant of Congressional Visit of Capitol Hill, Washington DC, March 3-5, 2008.

Participant at Briefing and meeting with members of the US Congress, Congressional staff, Key Administration officials and other Decision-Makers: "Long-term importance of science, engineering and technologies supporting the Nation's global competitiveness", Capitol Hill, Washington DC, March 4, 2008.

Organizing Committee of International Summer School in Petrology, Odessa, Ukraine, 2007.

University of California at Riverside Summer Science Program (SIZZLE- Project Copernicus) for high school students with interests in sciences, 2007.

University of California at Riverside, Science Library Advisors Committee, since 2007.

Science Fair Judge, Riverside County, Perris Elementary School, 2007.

Chair of Task Force IV: "Ultra-deep subduction " International Lithosphere Program, 2005-2010.

Organizing Committee on Focused Ion Beam International Workshop, USA, UC Riverside, Sponsored by US National Science Foundation, Department of Energy and Consortium for Material Properties Research in Earth Sciences (COMPRES), March 27-28, 2004.

Education and Outreach Committee, American Geophysical Union, 2004-2009.

US Civil Development Research Foundation (CRDF) Advisory Panel, 2003-2009.

Member of Ph. D students Committee, University of California at Riverside, 2003.

New Direction Undergraduate Research Committee, University of California at Riverside, 2003.

Science Fair Judge, Riverside County, Nuevo Middle school, 2003-2000.

Science Fair Judge, Riverside County, Perris Middle school, 2000.

International Committee: "Northern Territories", Bilateral Norwegian-Russian Scientific Cooperative Program, 1992-1999.

Advisory Committee for USA-Norway-USSR joint project "Vibrosiess" for geophysical studies of Archaean basement formations of the Baltic Shield, Polar Circle territories, 1992-1993.

High Education and Research Committee, Moscow State University, Russia, 1991-1992.

Representative-Scientist from the Institute of the Lithosphere to Russian Academy of Sciences, Division of Earth Sciences, 1990-1991.

PUBLICATIONS

Published more than 120 peer-review papers in international scientific journals; three Books.