

CURRICULUM VITAE

LARISSA DOBRZHINETSKAYA

Department of Earth Sciences
University of California at Riverside
Riverside CA 92521
Tel: 951-827-2028; E-mail: larissa@ucr.edu

EDUCATION:

Doctor of Science Degree, Moscow University, Supreme Committee of Education, Russia, 1990.
Ph. D. in geology and mineralogy, Institute of Physics of the Earth, Moscow, Russia, 1978.
Diploma (M.S.-B.S) in mineralogy, Geology faculty, Saint Petersburg University, Russia, 1974.

PROFESSIONAL EXPERIENCE:

Full Professor (adj. series), department of Earth Sciences, University of California at Riverside, since 2002.
International Scholar – JSPS Fellow, Waseda University, Tokyo, Japan, 2004-2005.
Associate Professor (adj. series), 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.
Lecturer, department of Natural and Environmental Sciences, Extension Center, University of California at Riverside, 1997-1998.
Visiting Professor, Research-Geophysicist, Institute of Geophysics and Planetary Physics, University of California at Riverside, 1993-1998.
Senior Scientists, Geological Survey of Norway, Trondheim, Norway, 1992-1993.
Invited 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, 1978-1982.

HONORS AND AWARDS:

Elected Fellowships

Fellow of Geological Society of America
Fellow of American Association for Advancement of Sciences
Fellow of Mineralogical Society of America
Fellow of Japanese Society for Promotion of Science

Other honors and awards

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

SCIENTIFIC EDITOR:

Editor, The Open Mineralogy Journal (on-line peer-review journal), Bentham Open, since 2007.
Managing Guest Editor, Lithos, 2007-2009.
Guest Editor, Journal of Metamorphic Geology, 2006-2007.
Editor of Book: "Advances in high-pressure technology for geophysical applications" , p.515 (Coeditors: Chen, J, Wang, Y., Duffy, T. and Shen, G) Elsevier, 2005.

CHAIR & CONVENER AT THE FOLLOWING SCIENTIFIC FORUMS:

33d International Geological Congress: "UHP-03: Ultrahigh Pressure metamorphism – minerals and microstructures" 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", San Francisco, USA, December 5-12, 2007.
International School of Earth Sciences: "Ultrahigh Pressure metamorphism and deep subduction", Odessa, Ukraine, September 1-9, 2007.
AGU Joint Assembly, V-51B: "Deep subduction zones metamorphism and rheology: role of fluids" , Acapulco, Mexico, May 22-25, 2007.
International Eclogite Conference, "Deep subduction of continental rocks", Paisley, Scotland, June 29-July6,

2007.

Western Pacific Geophysical Meeting, AGU Joint Assembly, "Ultrahigh pressure metamorphism and crustal melting", 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", San Francisco, December 11-15, 2006.

AGU Fall meeting, V53E: "Ultrahigh-Pressure Metamorphism: Multidisciplinary Approaches and Where to Go III: Petrology and Geochemistry", San Francisco, December, 5-10, 2005.

The 7th International Eclogitic Conference (IEC-7): "Diamond from UHPM terranes", Seggau, Austria, July 3-9, 2005.

AGU Fall Meeting, "Frontiers of Ultrahigh Pressure researches", San Francisco, December, 10-15, 2003.

The First International Barents sea Symposium: "Archean Enderbite formations of the Baltic Shield". Kirkenes, Norway, September 2-8, 1991.

KEY NOTE & INVITED TALKS AT THE FOLLOWING INTERATIONAL FORUMS:

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

"Osbornite (TiN) and boron nitride nanoinclusions in coesite from Tibet: a first record of nitrogen in a terrestrial ultrahigh pressure environment", AGU Fall Meeting, San-Francisco, USA, 2006

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

"Ultrahigh Pressure Metamorphic Terrains" International School of Earth Sciences., Odessa, Ukraine, September 1-9, 2007.

"Traces of H₂O in Ultrahigh-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:

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 Geoinstitut - 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 NanoInclusions 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 sp² graphite bonding?"*, 2002.

The University California, Los Angeles, CA: *"Diamond synthesis in laboratory from graphite in presence of H₂O: 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 TiO₂ 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 solid state flow?*", 1991.

TEACHING:

While on the faculty at the Moscow University, Institute of Physics of the Earth, Institute of the Lithosphere in Russia, and at UC Riverside, I taught a variety of undergraduate and graduate courses, including the introductory geology courses for majors as well as courses required for the majors in mineralogy, igneous/metamorphic petrology and geochemistry, Mineralogy, Optical Mineralogy, Freshman Discovery Seminar. I also taught advanced and graduate courses in my specialty: (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) ultrahigh pressure experiments and direct researches.

PROFESSIONAL SERVICE:

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

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

Speaker 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 of continental crust, 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, since 2003.

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.

Member of Committee "Geological hazards and their prediction" and Decadal Planning Group, Russian Academy of Sciences, Moscow, Russia, 1986-1990.

Russian Woman in Science Committee (Chair, Vice-Chair), Moscow, Russia, 1984-1988.

Organizing Committee, summer school on "Structural geology of Metamorphic Rocks", Moscow, Russia, 1989-1991.

EXTRAMURAL SUPPORT held by LF Dobrzhinetskaya since 1992:

US National Science Foundation

Project: *Synchrotron Radiation to Study Role of Water in Diamond Crystallization: Implication for Subduction Zone Processes*. Grant #NLS-PASS-7642. 24 beam-hours. L. Dobrzhinetskaya (PI), H.Green (Co-PI), X. Liu (Co-PI) – Brookhaven National Laboratory, supported by DOE-NSF. 2006-2007

Project: *Ab-initio Computer Modeling of Graphite Transformation to Diamond Using Hydrogen Clusters*. San Diego Supercomputer Center supported by NSF. L. Dobrzhinetskaya (PI), H. Green (Co-PI); A. Fedorov (Russian Co-PI). Tetra Grid Supercomputer user grant (07/2006-07/2007). EAR-060014T, 2006-2007.

Project: *Technical Support for a Dual Beam Focused Ion Milling System for TEM Foil Preparation + 3D Chemical Analysis*. H. Green, (PI), K.N. Bozhilov & L.F. Dobrzhinetskaya (Co-PIs) #EAR-0521896, 2006-2009.

Project: *Experimental Quantification of the Solubility of SiO₂ and H₂O in Clinopyroxene Versus Pressure*. L.F. Dobrzhinetskaya – PI, H. Green and K.N. Bozhilov – Co-PIs (07/01/04 – 06/30/08), #EAR0408505, 2006-2008.

Project: *A Novel Approach to Milliprobng Mössbauer Studies of Geologic Samples: Olivine Crystals with Fe-Bearing Precipitates*. NSF International Programs Division; L.F. Dobrzhinetskaya (PI), H. Green (Co-PI), 2003-2008.

Project: *Development of New Analytical Method Of Diamond Extraction From Ultra-High Pressure Rocks*. International Supplement to NSF Grant #EAR-0229666-001: US-Russian cooperative research. L.F. Dobrzhinetskaya (PI), H. Green (Co-PI),. 2003-2006.

Project: *Experimental Studies of the Mechanism of Diamond Crystallization from COH Supercritical Fluid in SiO₂-Rich Media*. L.F. Dobrzhinetskaya (PI), H. Green & K. Bozhilov, Co-PIs). #EAR0229666, 2002-2004.

Project: *Diamond Synthesis in Laboratory: Apparatus, Procedure and Starting Materials and Assembly Preparations*. Experience for Undergraduates, L.F. Dobrzhinetskaya (PI), Supplemental grant #EAR0107118, 2003-2004.

Project: *Mechanism and Condition of Growth of Metamorphic Diamonds from Ultra-High Pressure Kazakhstan and Germany*. #EAR0107118, L.F. Dobrzhinetskaya (PI), H. Green (Co-PI) \$60,000. 2001-2002.

Project: *Origin of the Alpe Arami Peridotite Massif Switzerland: Experimental Investigation of the Depth of Origin*. #EAR96-293432, H. W. Green (PI), L.F. Dobrzhinetskaya (Co-PI), 1996-1998.

Other Foundations

Project: *Diamond-anvil-cell experiments in diamond synthesis from a COH fluid coupled with synchrotron assisted in-situ X-ray diffraction measurements.* #GUP 6878, L.F. Dobrzhinetskaya (PI), V. Prakapenka, H.Green and J. Zhang (Co-PIs): Advanced Photon Source, Argonne National Laboratory. 24 beam hours, 2006-2007

Project: *Stable Isotopes Studies in Diamonds from Ultrahigh-Pressure Terrains Utilizing nanoSIMS Cameca-50.* L.F. Dobrzhinetskaya (PI), Y. Sano (Co-PI) (2004-2005), Japanese Society for the Promotion of Science and NSF- research grant, 2004-2005.

Project: *Ultra-Deep Subduction of Continental Crust (Task Force IV)* L.F. Dobrzhinetskaya (PI), (2005-2009), International Lithosphere Program, 2005-2009.

Project: *Evolution of Deep Recycling & Storage of Carbon During Collision of Continents.* L.F. Dobrzhinetskaya (PI), H.Green (Co-PI) (2003-2005), Pacific Rim Program, University of California, 2003-2005.

Project: *Re-fitting of Conventional Mossbauer Spectroscopy to Milliprobing Mode Using Silicon Drift Detector.* AAAS and NSF: Woman International Scientific Collaboration. L.F. Dobrzhinetskaya (PI), 2003-2004.

Project: *Nanoscale Inclusions in Microdiamonds* L.F. Dobrzhinetskaya (PI). Basic Research Program at Center for Material Sciences and Technology, Los Alamos National Laboratory. 1998-1999.

Diamonds from Kokchetav Massif Kazakhstan. L.F. Dobrzhinetskaya (PI), International Science Foundation, 1993-1994.

Project: *Unusual Microdiamonds in Metamorphic Rocks of Western Gneiss Region, Fjortoft, Norway: Field Work and Diamond Extraction from the Rocks.* L.F. Dobrzhinetskaya (PI), E. Eider & A. Kornelliussen (Co-PIs), Geological Survey of Norway, 1992-1993

Project: *Diamonds from Kokchetav massif, Kazakhstan: geology, tectonics and diamond formation.* L.F. Dobrzhinetskaya (PI), In statute of the Lithosphere, Russian Academy of Sciences and International Science Foundation; 1991-1992.

INTERNATIONAL COLLABORATIONS:

Hiryuoki Kagi, The University of Tokyo, Japan. "Deep-seated fluid in diamonds" , since 2008

Maya Kopolova, University of British Columbia, Vancouver, Canada. "Focused Ion Beam applications for TEM studies of ultra-deep diamonds from kimberlites", since 2006.

Alexander Fedorov, Institute of Physics, Siberian Branch of Russian Academy of Sciences. "*Molecular dynamic simulation of graphite transformation to diamond in presence of H₂O*", since 2006.

Yuji Sano, the University of Tokyo, Japan. "*Studies of stable isotopes in microdiamonds utilizing nanoSIMS* " since 2005.

Dalaila Tchkheta, Vernadsky Institute of Geochemistry, Russian Academy of Sciences, Moscow, Russia. "*Development of thermochemical decomposition of rocks to extract microdiamonds from impact and ultrahigh-pressure metamorphic rocks*", 2002-2003.

Todor Ruskov, Institute of Nuclear Energy, Bulgarian Academy of Sciences. "*Development of milliprobing Mossbauer Spectroscopy using silicon drift detector*", since 2002.

Zhiqin Xu, Director of the Continental Scientific Drilling Program. Beijing, China. "*Studies of ultra-high pressure minerals from continental collision zones*", since 2001.

Jingsui Yang, Institute of Geology and Geophysics, Chinese geological Academy of sciences, Beijing,

China. *“Studies of ultrahigh-pressure minerals from Tibet”*, since 2001.

Herman van Roermund and Dirk Spengler, Utrecht University, The Netherlands. *“Microstructure of majoritic garnet in peridotites from Norway”*, since 2000.

Richard Wirth, Geoforschungszentrum (GFZ), Potsdam, Germany. *“Studies of nanoscale inclusions in high pressure minerals utilizing Focused Ion Beam and Transmission Electron Microscopy”*, since 1998.

PUBLICATIONS

Published more than 100 peer-review papers in international scientific journals; two monographs and one edited book.