MAXIM GAVRILENKO, Ph.D.

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RESEARCH INTERESTS

My research combines mineral chemistry, quantitative microanalysis, and experimental petrology to investigate magma evolution, magmatic volatiles, and volcanic processes. My current work extends to mineral characterization and reactions relevant to geological hydrogen, critical mineral resources, and resource recovery.

PROFESSIONAL APPOINTMENTS

2026–pres	Research Scientist, National High Magnetic Field Laboratory, Florida State University; Center for Rare Earths, Critical Minerals, and Industrial Byproducts (since February 2026).
2023–2026	Postdoctoral Associate, Dept. of Earth and Atmospheric Sciences, Cornell University
2020–2023	Senior Researcher, Vernadsky Institute of Geochemistry and Analytical Chemistry, Russia (concurrent with Grenoble appointment).
2020–2023	Postdoctoral Researcher (Jeune Chercheur), Institut des Sciences de la Terre (ISTerre), Université Grenoble Alpes, France (primary work location; concurrent with Vernadsky appointment).
2019–2020	Senior Research Scientist, Center for Hydrocarbon Recovery, Skolkovo Institute of Science and Technology
2018–2019	Postdoctoral Associate, Dept. of Earth and Planetary Sciences, Washington University in St. Louis
2017–2018	Postdoctoral Associate, Dept. of Geological Sciences and Engineering, University of Nevada, Reno
2016–2017	Postdoctoral Associate, Dept. of Earth and Planetary Sciences, Washington University in St. Louis
2011–2016	Research and Teaching Assistant, Department of Earth and Planetary Sciences, Rutgers University
2010	Research Trainee, ARC Centre of Excellence in Ore Deposits, University of Tasmania, Australia (three months)
2008	Research Trainee, Geophysical Institute, University of Alaska Fairbanks (three months)
2006	Research Trainee, Geophysical Institute, University of Alaska Fairbanks (three months)
2005–2016	Research Assistant, Institute of Volcanology and Seismology, Kamchatka, Russia
2005	Geologist, Avers-1 LLC, Russia
2003	Geologist, Geokhimpoiski LLC, Russia

EDUCATION

2016	Ph.D. in Earth and Planetary Sciences, Geological Sciences – Rutgers, the State University of New Jersey, USA
1997	Specialist Diploma (equivalent to a Master's degree) in Geology and Geochemistry – Lomonosov Moscow State University, Moscow, Russia

PEER-REVIEWED PUBLICATIONS

h-index: 9 Citations: 530 (via Google Scholar)

13) Pineda, C., Ruprecht, P., Cannatelli, C., **Gavrilenko, M.**, Krawczynski, M., Morata, D. (in review). Volatile evolution and reservoir overpressure prior to the Pudahuel caldera-forming eruption, Southern Volcanic Zone, Andes. *Bulletin of Volcanology*.

12) Huggins, E.G., Ruprecht, P., Loewen, M., **Gavrilenko, M.**, Bodnar, R., and Harlaux, M. (2026). Pre-eruptive volatiles and magma storage depth for the 2018 eruption at Mount Veniaminof, Alaska. *Geochemistry, Geophysics, Geosystems*, 27(10), e2025GC012518. DOI: 10.1029/2025GC012518

11) Huggins, E.G., Gazel, E., **Gavrilenko, M.**, Dayton, K., Bixler, J., Towbin, H., Plank, T. (2026) High precision water quantification by Raman spectroscopy: Applications to volcanic and extraterrestrial samples. *Chemical Geology*. v. 721: 123628. DOI: 10.1016/j.chemgeo.2026.123628

10) **Gavrilenko, M.**, Gazel, E., Dayton, K., Barth, A., Plank, T., Huggins, E.G., Houghton, B. (2026) Deep Origin and Shallow Launch for the Etna 122 B.C. Mafic Plinian Eruption. *Geochemistry, Geophysics, Geosystems*, 27(6), e2026GC012924. DOI: 10.1029/2026GC012924

9) **Gavrilenko, M.**, Ruprecht, P., Krawczynski, M. (2025) The magmatic H2O pathway of ascending arc magmas recorded by Ca-in-olivine hygrometry: advantages, complications, and perspectives. *Contributions to Mineralogy and Petrology*, 180(9):54. DOI: 10.1007/s00410-025-02246-0

8) Llovet, X., **Gavrilenko, M.**, Batanova, V.G., Sobolev, A.V. (2023) Element depletion due to missing boundary fluorescence in electron probe microanalysis: The case of Ni in olivine. *Microscopy and Microanalysis*. V.29, no.5, p. 1595–1609. DOI: 10.1093/micmic/ozad100

7) **Gavrilenko, M.**, Batanova, V.G., Llovet, X., Krasheninnikov, S., Koshlyakova, A.N., Sobolev, A.V. (2023) Secondary fluorescence effect quantification of EPMA analyses of olivine grains embedded in basaltic glass. *Chemical Geology*. v. 621: 121328. DOI: 10.1016/j.chemgeo.2023.121328

6) Goltz, A., Krawczynski, M.J., **Gavrilenko, M.**, Gorbach, N.V., Ruprecht, P. (2020) Evidence for superhydrous primitive arc magmas from mafic enclaves at Shiveluch volcano, Kamchatka. *Contributions to Mineralogy and Petrology*, 175(12):115. DOI: 10.1007/s00410-020-01746-5

5) **Gavrilenko, M.**, Krawczynski, M., Ruprecht, P., Li, W., Catalano, J.G. (2019) The quench control of water estimates in convergent margin magmas. *American Mineralogist*, v. 104, no. 7, p. 936-948. DOI: 10.2138/am-2019-6735

4) **Gavrilenko, M.**, Herzberg, C.T., Vidito, C., Carr, M.J., Tenner, T., Ozerov, A. (2016) A Calcium-in-Olivine Geohygrometer and its Application to Subduction Zone Magmatism. *Journal of Petrology*, v.57, no. 9, p. 1811-1832. DOI: 10.1093/petrology/egw062

3) **Gavrilenko, M.**, Ozerov, A., Kyle, P.R., Carr, M.J., Nikulin, A., Vidito, C., Danyushevsky, L. (2016) Abrupt transition from fractional crystallization to magma mixing at Gorely volcano (Kamchatka) after caldera collapse. *Bulletin of Volcanology*, v. 78, no. 7, p. 1-28. DOI: 10.1007/s00445-016-1038-z

2) Levin, V., Droznina, S., **Gavrilenko, M.**, Carr, M.J., Senyukov, S. (2014) Seismically active subcrustal magma source of the Klyuchevskoy volcano in Kamchatka, Russia. *Geology*, v. 42, no. 11, p. 983-986. DOI: 10.1130/g35972.1

1) Tolstykh, M.L., Naumov, V.B., **Gavrilenko, M.G.**, Ozerov, A.Yu., Kononkova, N.N. (2012) Chemical composition, volatile components, and trace elements in the melts of the Gorely volcanic center, southern Kamchatka: Evidence from inclusions in minerals. *Geochemistry International*, vol. 50, No 6, p. 522-550. DOI: 10.1134/S0016702912060079

OTHER SCIENTIFIC PUBLICATIONS

Gorbach, N. V., **Gavrilenko, M. G.**, and Filosofova, T. M. (2017). Chemical and mineralogical compositions of products from the September 2016 eruption of Young Shiveluch volcano. *In Volcanism and Related Processes: Proceedings of the XX Annual Scientific Conference Dedicated to Volcanologist's Day*, Petropavlovsk-Kamchatsky, pp. 26–29. ***[In Russian; title translated.]***

Gavrilenko, M. G., and Ozerov, A. Yu. (2009). Gorely volcano: Evolution of magmatic melts. *In Proceedings of the IV All-Russian Symposium on Volcanology and Paleovolcanology*, Petropavlovsk-Kamchatsky, Vol. 1, pp. 308–310. ***[In Russian; title translated.]***

Gavrilenko, M. G. (2008). The 2008 General Assembly of the International Association of Volcanology and Chemistry of the Earth's Interior. *Vestnik KRAUNTs. Earth Sciences*, no. 2(12), pp. 207–208. ***[Conference report; in Russian; title translated.]***

Andreev, V. I., Ozerov, A. Yu., Senyukov, S. L., and **Gavrilenko, M. G.** (2007). Eruptive activity of Karymsky volcano in 2005–2006 (short communication). *In Proceedings of the Annual Conference Dedicated to Volcanologist's Day*, 28–31 March 2007, pp. 337–346. Institute of Volcanology and Seismology, Far Eastern Branch, Russian Academy of Sciences, Petropavlovsk-Kamchatsky. ***[In Russian; title translated.]***

Gavrilenko, G. M., and **Gavrilenko, M. G.** (2001). Geochemical precursors of the 2000 eruption of Mutnovsky Volcano, Kamchatka. In R. Cidu (Ed.), *Water-Rock Interaction: Proceedings of the Tenth International Symposium*, WRI-10, Vol. 1, pp. 99–102. A. A. Balkema. ***[Peer-reviewed proceedings paper.]***

RESEARCH FUNDING AND AWARDS

RESEARCH AND FIELDWORK GRANTS AS PRINCIPAL INVESTIGATOR

Far Eastern Branch of the Russian Academy of Sciences (FEB RAS), Russia:

2015 Field investigations of Kamchatka volcanoes to constrain mantle source parameters. Grant 15-I-1-025 э; RUB 47,000.

2012 Development of the calc-alkaline rock series at Gorely volcano, Kamchatka.

Grant 12-III-A-08-166; RUB 270,000.

2011 Petrological and geochemical comparison of the pre-caldera and modern calc-alkaline series at Gorely volcano. Grant 11-III-B-08-197; RUB 69,000.

2010 Parental magmas of the calc-alkaline basalt–rhyolite series at Gorely volcano. Grant 10-III-B-08-208; RUB 70,000.

2009 Evolution of the basalt-rhyolite rock series at Gorely volcano: Stage I, parental magmas. Grant 09-III-B-08-466; RUB 70,000.

2009 Field investigations of parental magmas at Gorely volcano. Grant 09-III-Д-08-491; RUB 70,000.

2007 Field investigations of the Gorely volcanic edifice, Kamchatka: evolution of the calc-alkaline series. Grant 07-III-Д-08-093; RUB 170,000.

2006 Evolution of calc-alkaline basalts at Gorely volcano, Kamchatka. Grant 06-III-B-08-368; RUB 210,000.

EARLY CAREER RESEARCH SUPPORT

Russian Foundation for Basic Research (RFBR), Russia:

2002 Young Scientist Support Program. Support associated with RFBR project 00-05-64466. Grant 02-05-06546; RUB 30,000.

2001 Young Scientist Support Program. Support associated with RFBR project 00-05-64466. Grant 01-05-06153; RUB 30,000.

AWARDS AND FELLOWSHIPS

2015 Richard K. Olsson Award – Ph.D. Student of the Year; Rutgers University (Dept. Earth & Planetary Sciences)

2014 Excellence Fellowship for dissertation work (2014-2015); Rutgers University (School of Arts and Sciences)

2010 International Fulbright Science & Technology Award; 3-year fellowship (2011-2014)

1996 International Soros Science Education Program (ISSEP) Award (Russia)

CONFERENCE TRAVEL GRANTS

Russian Foundation for Basic Research (RFBR), Russia:

2009 Participation in the 6th International Workshop on Japan–Kamchatka–Alaska Subduction Processes (JKASP 2009). Grant 09-05-09257; RUB 70,000.

2008 Participation in the IAVCEI 2008 General Assembly. Grant 08-05-09271; RUB 40,000.

TEACHING AND RESEARCH MENTORING

COURSE INSTRUCTION

Spring 2016 Introduction to Geophysics, Rutgers University — field and data-analysis instructor; Graduate Teaching Fellow.

Fall 2015 Mineralogy, Rutgers University — laboratory and field instructor; Graduate Teaching Fellow.

INFORMAL RESEARCH MENTORING

Provided guidance in experimental and analytical techniques, petrological modeling, scientific writing and editing, and job applications. Faculty supervisors are identified below; these were informal mentoring roles.

2025 Natalia Pszeniczny — Undergraduate senior thesis, Cornell University. Faculty supervisor: Esteban Gazel.

2024–2025 Kyle Dayton — Ph.D. research, Cornell University. Faculty supervisor: Esteban Gazel.

2024–2025 Valentina Villanueva Morales and Jonathan Bixler — Ph.D. research, Cornell University. Faculty supervisor: Esteban Gazel.

2021 Aleksandr Chugunov — Ph.D. research, Université Grenoble Alpes. Faculty supervisor: Alexander Sobolev.

2019–2022 Stepan Krasheninnikov and Daria Tobelko — Ph.D. research, Vernadsky Institute. Faculty supervisor: Maxim Portnyagin.

2019 Ethan Kuehl — Undergraduate senior thesis, Washington University in St. Louis. Faculty supervisor: Michael Krawczynski.

2018–2019 Andrea Goltz — Ph.D. research, Washington University in St. Louis. Faculty supervisor: Michael Krawczynski.

2018–2019 Ellyn Huggins — Ph.D. research, University of Nevada, Reno. Faculty supervisor: Philipp Ruprecht.

2013 Jennifer Geoghegan — Undergraduate senior thesis, Rutgers University. Faculty supervisor: Michael J. Carr.

2005–2008 Jill Shipman — Ph.D. research, University of Alaska Fairbanks. Faculty supervisor: John Eichelberger.

FIELD RESEARCH AND TRAINING

RESEARCH AND PROFESSIONAL FIELDWORK

Volcanic fieldwork involved rock sampling and investigation of the spatial and stratigraphic relationships, volumes, and compositions of magmatic units:

2025 California and Oregon, USA: ophiolite ultramafic rock sampling (one week) – $GeoH_2$ project.

2024 California, USA: ophiolite ultramafic rock sampling (two weeks) – $GeoH_2$ project.

2023 Chile: Villarrica and Llaima volcanoes (two weeks).

2019 Cascades, USA: Mt. Shasta (one week).

2017 Kamchatka, Russia: Shiveluch and Klyuchevskoy volcanoes (two weeks).

2016 Kamchatka, Russia: Shiveluch volcano (two weeks).

2010 Sicily, Italy: Mt. Etna (one week).

2008–2010 Kamchatka, Russia: Gorely and Mutnovsky volcanoes; fieldwork organizer (six weeks).

2007 Kamchatka, Russia: Bezymyanny, Gorely, and Mutnovsky volcanoes (three weeks).

2006 Cascades, USA: Mt. St. Helens (one week).

2006 Kamchatka, Russia: Bezymyanny volcano (two weeks).

2005 Eastern Siberia, Russia: geological-hazard mapping for an oil pipeline (two months).

2005 Kamchatka, Russia: Bezymyanny and Tolbachik volcanoes (two weeks).

2003 Southern Kamchatka, Russia: geochemical mapping (four weeks).

2003 Kamchatka, Russia: Klyuchevskoy volcano (two weeks).

2000 Kamchatka, Russia: Bezymyanny, Gorely, and Mutnovsky volcanoes (five weeks).

1998–1999 Kamchatka, Russia: Klyuchevskoy, Karymsky, Gorely, and Mutnovsky volcanoes (twelve weeks).

1996 Kamchatka, Russia: Bezymyanny and Klyuchevskoy volcanoes (three weeks).

1995 Kamchatka, Russia: Gorely and Mutnovsky volcanoes (two weeks).

UNIVERSITY FIELD TRAINING — STUDENT PARTICIPATION

1995 Caucasus Mountains: Moscow State University field course in geochemical methods of mineral-deposit exploration (four weeks).

1994 Ural Mountains: Moscow State University mineralogy and petrology field course (four weeks).

1993, 1994 Crimea Peninsula: Moscow State University geological-mapping field courses (four and six weeks, respectively). Training included bedding and structural measurements, geological maps, cross-sections, and interpretation of folds and faults.

LABORATORY LEADERSHIP AND TECHNICAL EXPERTISE

2026–present National High Magnetic Field Laboratory, Florida State University: manage SEM and LA-ICP-TOF-MS facilities; operate and maintain instrumentation; train undergraduate and graduate users in SEM/EDS and mineral characterization, including mapping, automated mineralogy, and particle analysis.

Washington University in St. Louis: trained undergraduate students in experimental-petrology laboratory techniques during postdoctoral research.

ANALYTICAL AND EXPERIMENTAL METHODS

- Electron microprobe analysis: more than 15 years of experience with JEOL and Cameca instruments; development and evaluation of trace-element methods and secondary-fluorescence corrections. Scanning electron microscopy: JEOL and TESCAN instruments, including TESCAN MIRA4 with Oxford Ultim Max 170 EDS and BEX.
- Mass spectrometry: laser-ablation ICP-MS (Agilent 7500ce with UP-213), solution ICP-MS (Agilent 7700), and LA-ICP-TOF-MS facilities with an Iridia laser-ablation system; SIMS analyses using Cameca IMS 7f-Geo and IMS 1280 instruments for volatiles in nominally anhydrous minerals and melt inclusions.
- Other analytical methods: XRF and ICP-MS for bulk composition; Raman spectroscopy using a WITec Alpha300R confocal Raman microscope.
- Experimental petrology: piston-cylinder apparatus, 1-atmosphere furnaces, and LINKAM heating stages.

COMPUTATIONAL METHODS

Petrological modeling: MELTS, PETROLOG, Arc Basalt Simulator, PRIMELT, and COMAGMAT. Microanalysis modeling: PENEPMA and CalcZAF. Programming: BASIC, Fortran, MATLAB, and Python.

DEPARTMENTAL SEMINARS

2024 "Melt storage and volatiles control on explosive mafic eruptions." Department of Earth and Atmospheric Sciences, Cornell University.

PROFESSIONAL SERVICE

- Peer reviewer for 40+ manuscripts (verified by Web of Science Reviewer Recognition/Publons) for leading international journals including: "Earth and Planetary Science Letters", "Bulletin of Volcanology", "Chemical Geology", "Lithos", "Geochimica et Cosmochimica Acta", "Journal of Petrology", "American Mineralogist", "Contributions to Mineralogy and Petrology", "Geophysical Research Letters", "Geochemistry, Geophysics, Geosystems", "Ceramics International".
- Proposal reviewer for the U.S. National Science Foundation (Petrology & Geochemistry).
- Proposal reviewer for the Fulbright Scholarship program (Geology).
- Session convener "The role of volatiles in volcanic systems of the Earth's lithosphere", IAVCEI Scientific Assembly, 2017.

SELECTED MEDIA COVERAGE

2026 — "*Carbon dioxide and water played key role in historic Mount Etna eruption.*" Cornell Chronicle, Cornell University, June 2.

2019 — "*Water drives explosive eruptions; here's why magmas are wetter than we thought.*" The Source, Washington University in St. Louis, July 2. Related coverage: "*We need a bigger bucket: Experimental geochemists push limits of water estimates in magma*." Washington University departmental news, July 1.

2018 — "*Active volcanoes lure College of Science geologist to remote Kamchatka.*" Nevada Today, University of Nevada, Reno, February 5.

CONFERENCE CONTRIBUTIONS

* indicates the presenting author. Includes coauthored contributions presented by colleagues.

ORAL CONTRIBUTIONS

*Villanueva-Morales, V., Gazel, E., Huggins, E., **Gavrilenko, M.**, Vera, F., Flores, F., Delgado, F., and Amigo, Á. (2026). Highly explosive mafic eruptions: stalling levels at Villarrica volcano (Chile). *XVII Congreso Geológico Chileno (17th Chilean Geological Congress)*, Valdivia, Chile, December 13-18, 2026. Conference abstract.

*Pineda, C., Arancibia, G., Villanueva, V., Huggins, E., **Gavrilenko, M.**, Gazel, E., Mura, V., and Morata, D. (2026). Multi-level magma storage recorded by olivine-hosted melt inclusions from the Baños cone, Nevados de Chillán Volcanic Complex. *XVII Congreso Geológico Chileno (17th Chilean Geological Congress)*, Valdivia, Chile, December 13-18, 2026. Conference abstract.

*Gazel, E., **Gavrilenko, M.**, Dayton, K., Barth, A., Plank, T., Huggins, E.G., Houghton, B. (2026) Shallow Stalling vs. Deep Rapid Ascent: Contrasting Storage Histories of Etna's 122 B.C. and Fall Stratified Explosive Mafic Eruptions. *AGU Fall Meeting (San Francisco, USA)*, Abstract 2074301.

***Gavrilenko, M.**, Batanova, V., Llovet, X., Krasheninnikov, S., Koshlyakova, A., Sobolev, A. (2022) Secondary fluorescence effect quantification of EPMA analyses of olivine grains embedded in basaltic glass. *Goldschmidt Conference 2022 (Honolulu, USA)*. DOI: 10.46427/gold2022.10155

***Gavrilenko, M.**, Batanova, V., Krasheninnikov, S., Sobolev, A. (2021) EPMA analyses of olivine near the boundary with a basaltic glass – the secondary fluorescence effect quantification. *Goldschmidt Conference 2021 (Lyon, FRANCE)*. DOI: 10.7185/gold2021.5335

***Gavrilenko, M.**, Ruprecht, P., Krawczynski, M., Catalano, J. (2019) The Limits of Glassy Melt Inclusion as Magmatic H2O Recorders for Super-Hydrous Mafic Melts. *AGU Fall Meeting (San Francisco, USA)*, Abstract V11A-02.

*Ruprecht, P., Reyes, P., Winslow, H., Walowski, K., **Gavrilenko, M.**, Krawczynski, M., Plank, T. (2019) Crystal exit interviews – the role of olivine in recording magma assembly and magmatic processes. *AGU Fall Meeting (San Francisco, USA)*, Abstract V43A-05.

*Krawczynski, M., Goltz, A., **Gavrilenko, M.** (2019) Evidence for eruption of a superhydrous magma from Shiveluch volcano, Kamchatka. *GSA Annual Meeting (Phoenix, USA)*. DOI: 10.1130/abs/2019AM-340579

***Gavrilenko, M.**, Ruprecht, P., Krawczynski, M. (2018) Magmatic H2O variations in primitive magmas of Klyuchevskoy volcano through the lens of the Ca-in-olivine. *Goldschmidt Conference 2018 (Boston, USA)*.

*Goltz A., Krawczynski, M., **Gavrilenko, M.**, Gorbach, N., Ruprecht, P. (2018) Petrology and Geochemistry of Mafic Enclaves from Shiveluch Volcano, Kamchatka. *Goldschmidt Conference 2018 (Boston, USA)*.

***Gavrilenko, M.**, Krawczynski, M., Ruprecht, P., Li, W. (2017) Are melt inclusions a robust tool for understanding H2O content of deep hydrous arc magmas? *IAVCEI Scientific Assembly (Portland, USA)*.

*Krawczynski, M., **Gavrilenko, M.**, Ruprecht, P. (2017) Possible existence of deep super-hydrous arc magmas: implications from high-Mg amphibole. *IAVCEI Scientific Assembly (Portland, USA)*.

*Herzberg, C., **Gavrilenko, M.**, Vidito, C. (2015) Provenance of Olivine in Volcanic Rocks. *Goldschmidt Conference 2015 (Prague, Czech Republic)*.

*Ponomareva, V., Portnyagin, M., Kuvikas, O., Pevzner, M., Bazanova, L., Bigg, G., **Gavrilenko, M.**, Kyle, P., Christel van den Bogaard (2009) Tephrochronological Research in the KALMAR Project and its Implications to the Temporal and Compositional Evolution of Volcanism in Kamchatka. *First Bilateral workshop on Russian-German cooperation on Kurile-Kamchatka and the Aleutian Marginal Sea-Island Arc Systems.*

***Gavrilenko, M.**, Ozerov, A., Kyle, P., Eichelberger, J. (2008) Gorely volcano (Southern Kamchatka) – petrochemical characteristics of magmatic evolutional series. *IAVCEI General Assembly (Reykjavik, Iceland).*

POSTER AND OTHER CONTRIBUTIONS

***Gavrilenko, M.**, Ruprecht, P., Krawczynski, M. (2018) Tracking pre-eruptive magmatic H2O evolution from the mantle to the surface at Klyuchevskoy volcano (Kamchatka arc). *AGU Fall Meet. Suppl.*, Abstract T31H-0396.

***Gavrilenko, M.**, Krawczynski, M., Ruprecht, P. (2017) The quench control of water estimates in convergent margin magmas. *AGU Fall Meet. Suppl.*, Abstract V33G-0590.

***Gavrilenko, M.**, Herzberg, C., Vidito, C., Carr, M., Tenner, T., Ozerov, A. (2016) A Calcium in Olivine Geohygrometer and its Application to Subduction Zone Magmatism. *AGU Fall Meet. Suppl.*, Abstract V31A-3060.

***Gavrilenko, M.**, Ozerov A., Kyle P., Carr M.J., Nikulin, A. (2015) Magma mixing and degassing processes in the magma chamber of Gorely volcano (Kamchatka): evidence from whole-rock and olivine chemistry. *AGU Fall Meet. Suppl.*, Abstract V43B-3120.

***Gavrilenko, M.**, Ozerov, A., Kyle, P., Carr, M.J. (2015) The roles of fractional crystallization and mixing on magma evolution at Gorely volcano (Kamchatka). *GeoPRISMS/TEI SCD Meeting (Los Angeles).*

***Gavrilenko, M.**, Ozerov, A. (2014) The Sub-Crustal Magma Chamber Existence and Magma Ascent Rate for Klyuchevskoy Volcano (Kamchatka): Constrains from Ni Zonation in Olivine Phenocrysts. *AGU Fall Meet. Suppl.*, Abstract V51A-4726.

***Gavrilenko, M.** (2014) Volcanoes – a window to the Earth interior: Identification of Source Lithology. *Fulbright International Science & Technology Capstone (Washington, DC).*

***Gavrilenko, M.**, Carr, M., Herzberg, C., Ozerov, A. (2013) Pyroxenite is a possible cause of enriched magmas in island arc settings: Gorely volcano (Kamchatka). *AGU Fall Meet. Suppl.*, Abstract V31A-2666.

*Dunham, B., Levin, V., Droznina, S., **Gavrilenko, M.** (2013) Impact of subduction geometry on high-productivity arc volcanism of the Klyuchevskoy volcanic group (Kamchatka, Russia). *AGU Fall Meet. Suppl.*, Abstract V21C-2748.

***Gavrilenko, M.**, Herzberg, C., Portnyagin, M., Ozerov, A. (2012) Identification of Source Lithology at South Segment of Kamchatka Subduction Zone. *AGU Fall Meet. Suppl.*, Abstract V31A-2761.

***Gavrilenko, M.**, Ozerov, A. (2011) Mineralogical and Geochemical Characteristics of High-Magnesian Basalts of Gorely volcano (Southern Kamchatka): Implication for Mantle Source. *AGU Fall Meet. Suppl.*, Abstract V43C-2584.

*Shipman, J., Izbekov, P., **Gavrilenko, M.** (2011) Petrologic Insights into Magma System Response to Edifice Collapse. *AGU Fall Meet. Suppl.*, Abstract V21E-2540.

***Gavrilenko, M.G.**, Ozerov, A.Yu. (2010) Geochemical similarities between the Pre-caldera and Modern evolutionary series of eruptive products from Gorely volcano. *AGU Fall Meet. Suppl.*, Abstract V21B-2333.

*Shipman, J.S., Turner, S.J., **Gavrilenko, M.**, Izbekov, P.E. (2010) Rapid Modal Analysis and Whole-Rock Geochemistry of the 1956-Present Eruptive Products of Bezymianny Volcano, Kamchatka, Russia. *AGU Fall Meet. Suppl.*, Abstract V21B-2332.

***Gavrilenko, M.G.**, Ozerov, A.Yu. (2010) The chemical composition of the accessory minerals inclusions in the olivine and pyroxene phenocrysts, as an indicator of the calc-alkaline magmas evolution conditions at the Gorely volcano (Kamchatka). *GSA Annual Meeting (Denver).*

***Gavrilenko, M.**, Ozerov, A. (2009) High-Magnesia Basalts – Source of Calc-Alkaline Series of Gorely Volcano (Kamchatka). *6th Biennial Workshop on Japan-Kamchatka-Alaska Subduction Processes (Fairbanks).*

***Gavrilenko, M.G.**, Ozerov, A.Yu. (2009) Evolution of the magmatic melts at Gorely volcano (Kamchatka). *GSA Annual Meeting (Portland).*

*__Gavrilenko, M.G.__, Kyle, P.R. (2007) Mineralogical and Geochemical Characteristics of Magmatic Series Evolution at Gorely Volcano (Southern Kamchatka). *AGU Fall Meet. Suppl.*, Abstract V32C-07.

*Shipman, J.S., Pallister, J., Gorbach, N., Belousova, M., **Gavrilenko, M.**, Krivomazova, O., Izbekov, P.E., Eichelberger, J.C. (2007) Bezymianny and Shiveluch Volcanoes, Kamchatka, Russia and Mount St. Helens, WA: Response of Volcanoes That Have Experienced Edifice Collapse. *AGU Fall Meet. Suppl.*, Abstract V31B-0488.

*__Gavrilenko, M.G.__, Ozerov, A.Yu., Kyle, P.R., Eichelberger, J.C. (2006) Petrological And Geochemical Characteristics Of Magmatic Melts At Gorely Volcano, Kamchatka, Russia. *AGU Fall Meet. Suppl.*, Abstract V11A-0558.

*__Gavrilenko, M.__, Ozerov, A.Yu., Kyle, P.R., Meshalkin, V. (2004) The Magmatic Melts evolution of Gorely volcano (Kamchatka). *32-nd International Geological Congress (Florence, Italy).*

*__Gavrilenko, M.__, Khvorov, D. (2000) Genesis conditions of arc high-alumina basalts. *IAVCEI General Assembly (Bali, Indonesia).*

PROFESSIONAL AFFILIATIONS AND LANGUAGES

American Geophysical Union (AGU); Mineralogical Society of America (MSA); International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI); Geochemical Society (GS).

Languages: Russian (native); English (fluent); French (basic speaking and reading).