Yongjun Gao

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Professional Appointments:

2020- Co-Director of ICP Research Laboratory, EAS Dept. UH
2025- Research Professor, University of Houston
2013- 2025 Research Associate Professor, University of Houston
2008- 2013: Research Assistant Professor, University of Houston
2005- 2008: Postdoctoral fellow, Principle Investigator of USSSP funded project, University of Houston, Houston, TX, USA
2004-2005: Postdoctoral fellow, Max-Planck Institut für Chemie, Abt. Geochemie, Mainz, Germany.
2001-2004: Project Scientist of German Research Foundation (DFG) project Göttingen University, Göttingen, Germany; Max-Planck Institut für Chemie, Mainz, Germany.
2000-2001: Guest Scientist, Max-Planck Institut für Chemie, Mainz, Germany.
1999-2000: Research Assistant, Peking University, Beijing, China.
1996-1999: Graduate Research Assistant, Peking University, Beijing, China.
1992-1996: Undergraduate Research Assistant, China Ocean University, Qing Dao, China.

Academic Degrees:

Ph.D. (2004) Geochemistry, University of Goettingen, Goettingen, Germany
M. Sc. (1999) Geochemistry, Peking University, Beijing, China
B. S. (1996) Marine Geology, China Ocean University, Qing Dao, China

Departmental Service: Lab Manager for ICP-MS Research Lab.
Since the establishment in 2005, this lab has served extensively for users both inside and outside the department to support their federal funded projects, student thesis research, as well as industrial projects.

Student Advised:

Master Degree:
Carmen A. Dragoi (MS, UH, graduated in 2011, 2nd supervisor, co-supervised with Jack Casey);
Raul Benavidez (MS, UH, graduated in 2015, 2nd supervisor, co-supervised with Jack Casey);
Nam Nguyen (MS, UH, graduated in 2013, committee member, co-supervised with Jonathan Snow);

Weihang Yang (MS, UH, graduated in 2015, 2nd supervisor, co-supervised with Jack Casey);
Mariah Michie (MS, UH, graduated in 2019, 2nd supervisor, co-supervised with Jack Casey);
Leiser Silva (MS, UH, graduated in 2019, committee member, co-supervised with Alan Brandon);
Linhan Li (MS, UH, graduated in 2020, 2nd supervisor, co-supervised with Jack Casey).
Hannah R. Anderson (MS, UH, to be graduated in 2022, 2nd supervisor, co-supervised with Jack Casey).
Yung Ping Lee (MS, UH, graduated in 2021, committee member, co-supervised with Jonathan Snow);

Ph.D Degree:

Weihang Yang (Ph. D, UH, Graduated in 2019, co-supervised with Jack Casey);
He Sun (Ph.D, USTC, graduated in 2014, 2nd supervisor, co-supervised with Yilin Xiao);
Weiyao Yan (Ph.D, UH, 2nd supervisor to be graduated in 2022, co-supervised with Jack Casey);
Linhan Li (Ph.D, UH, 2nd supervisor to be graduated in 2023, co-supervised with Jack Casey);
Erik R. Slotsve (Ph.D, UH, 2nd supervisor, to be graduated in 2022, co-supervised with Jack Casey);
Nan Sun (Ph.D, UH, graduated in 2021, committee member, co-supervised with Alan brandon).

Course Teaching:

Analytical Methods in Inorganic Geochemistry

Spring 2011, GEOL 6397 LEC (21009), Every Monday in SW 229, 1PM to 4 PM (for both graduate and undergraduate student)

Fall 2016, GEOL 4397/02 LEC (27264), Every Tuesday and Thursday in SW 219, 5:30 PM to 7:00 PM (for both graduate and undergraduate student)

Detailed study of classical and modern spectroscopic methods for elemental and isotope analysis; emphasis on instrumentation and application to Earth Science problems. Topics include: ICP-OES spectroscopy, Q-ICP-MS spectroscopy, QQQ-ICP-MS, LA-ICP-MS, MC-ICP-MS and TIMS. Analytical Methods in Inorganic Geochemistry is designed as an overview of the principles of Emmision Spectrometry and Mass Spectrometry; detailed operational practice training of available instruments in the Department of Earth and Atmospheric Sciences including sample preparation (Fusion, Acid Digestion and Laser Ablation), Instrument Operation; Data Reduction and Evaluation. Secondly, it is also

designed to give background and context to published data sets for peer reviewed publication and graduate thesis.

Publications:

Peer-reviewed Journal Articles (By Year; * Student as first author)

1. Liu, H., Liu, L., Khan, S.D., **Gao, Y.**, Xu, L., Hu, T. and Moon, I., 2025. Late Neoarchean multi-stage granitoid rocks in the Dengfeng terrane, North China Craton: Petrogenesis and implications for geodynamic processes. Geochemistry, 85(3), p.126300.
2. Liu, H., Sun, L., Liu, L., Khan, S.D., **Gao, Y***. and Hu, T., 2024. Neoarchean subduction to back-arc extension in the North China Craton: Insights from the Dengfeng basic rock. Solid Earth Sciences, 9(3), p.100192.
3. Lee, K.J., You, J., **Gao, Y.** and Terlier, T., 2024. Release, Transport, and accumulation of lithium in shale brines. Fuel, 356, p.129629.
4. Liu, H., Yang, T., Xue, Y.Y., Deng, J., Xiao, Y., Sun, H., Tong, F., Wang, K., **Gao, Y.**, Lin, K.Y. and Zhang, F., 2023. Slab dehydration and potassium-lithium recycling in the forearc indicated by potassium and lithium isotope compositions of exhumed metabasites. Geochimica et Cosmochimica Acta, 360, pp.16-35.
5. Nan, X.Y., Wu, F., Yu, H.M., Kang, J.T., **Gao, Y.J.** and Huang, F., 2023. Barium isotope compositions of altered oceanic crust from the IODP Site 1256 at the East Pacific rise. Chemical Geology, 641, p.121778.
6. Yang, W., Casey, J.F., **Gao, Y*.**, Bissada, K.K., Curiale, J.A. and Liao, Z., 2023. Trace elements and organic geochemical fingerprinting of natural crude oils from the Monterey Formation, offshore Santa Maria Basin, California. Marine and Petroleum Geology, 157, p.106472.
7. Lithium isotopic and fluid mobile trace element systematics of the Bay of Islands altered forearc upper to lower ophiolitic crust, 2023, L Li, JF Casey, **Y Gao**, W Yan, ***Chemical Geology***, 2023, Volume 623, 20 April 2023, 121408.
8. Calcium isotope systematics of altered oceanic crust at IODP site 1256: Insights into the hydrothermal alteration, 2023, LZ Hu, JT Kang, YH Qi, **YJ Gao**, XY Nan, J Huang, ***Lithos,*** Volumes 438–439, February 2023, 106994.
9. Sun, H., **Gao, Y.***, Xiao, Y., Zhang, G.., Casey, J.F., and Shen, Y., 2018, Rapid enhancement of chemical weathering linked to very light seawater Lithium isotope at the Permian-Triassic boundary, ***Proceedings of the National Academy of Sciences*** 115.15 (2018): 3782-3787.
10. **Yongjun Gao**, John F. Casey, Luis M. Bernardo, Weihang Yang, K. K. (Adry) Bissada, 2018, Vanadium Isotope Composition of Crude Oil: Source, Maturation, and Biodegradation, Geological Society of London (From Source to Seep: Geochemical Applications in Hydrocarbon Systems. ***Geological Society, London, Special Publications*** 468 (1), 83-103.
11. Yu, H. M., Li, Y. H., **Gao, Y.**, Huang, J., & Huang, F., 2018, "Silicon isotopic compositions of altered oceanic crust: Implications for Si isotope heterogeneity in the mantle." ***Chemical Geology*** 479 (2018): 1-9.
12. W. Yang, J. F. Casey, **Y. Gao***, J. Li, 2018, A new method of geochemical allocation and monitoring of commingled crude oil production using trace and ultra-trace multi-element analyses, ***Fuel*** 241, 347-359.
13. Yang, W. H., J. F. Casey, and **Y. Gao*.**, 2017, "A new sample preparation method for crude or fuel oils by mineralization utilizing single reaction chamber microwave for broader multi-element analysis by ICP techniques." ***Fuel*** 206 (2017): 64-79.
14. Jian Huang, Sheng-Ao Liu, **Yongjun Gao**, Yilin Xiao, Sha Chen, 2016, Copper and zinc isotope systematics of altered oceanic crust at IODP Site 1256 in the eastern equatorial Pacific, ***Journal of Geophysical Research - Solid Earth***, 121 (10), 7086-7100.

15. Sun, H., **Gao, Y.***, Xiao, Y. and Casey, J.F., 2016, Lithium and its isotope as geochemical tracers in post-collisional magmatism: Insights from late Jurassic Jingshan granite and later diabase dikes, ***Chemical Geology*** , 439, 71-82.
16. Jian Huang, Shan Ke, **Yongjun Gao**, Yilin Xiao, Shuguang Li, 2015, Magnesium isotopic compositions of altered oceanic basalts and gabbros from IODP Site 1256 at the East Pacific Rise, ***Lithos***, doi: 10.1016/j.lithos.2015.06.009.
17. Li Ma, **Yongjun Gao**, and Anthony Maresso, 2015, A Free Radical-based Killing Mechanism of E. coli that is Driven by a Unique Combination of Iron Restriction and Certain Antibiotics, ***Journal of Bacteriology***, 197(23):JB.00758-15.
18. Sun, H., Y.L. Xiao, **Y. Gao***, J.Q. Lai, Z. Hou, Y. Wang, 2012, Fluid and melt inclusions in the Mesozoic Fangcheng basalt from North China Craton: implications for magmaevolution and fluid/melt-peridotite reaction, ***Contrib. Mineral. Petrol.*** 165(5), 885-901.
19. Junbao Yu, Hongfang Dong, Yunzhao Li, Huifeng Wu, Bo Guan, **Yongjun Gao**, Di Zhou, Yongli Wang, 2013, Spatiotemporal distribution characteristics of soil organic carbon in newborn coastal wetlands of the Yellow River Delta estuary, ***CLEAN–Soil, Air, Water***, DOI: 10.1002/clen.201100511.
20. **Gao, Y**., F. Vils, K. M. Cooper, N. Banerjee, M. Harris, J. Hoefs, D. A. H. Teagle, J. F. Casey, T. Elliott, C. Laverne, J. C. Alt, K. Muehlenbachs, 2012, Down-hole variation of lithium and oxygen isotopic compositions of oceanic crust at East Pacific Rise, ODP Site 1256, ***Geochem. Geophys. Geosyst***., doi:10.1029/2012GC004207.
21. Huang, J. Y. Xiao, **Y. Gao** (correspondence author), Z. Hou, W. Wu, 2012, Nb-Ta fractionation induced by fluid-rock interaction in subduction-zones: Constraints from UHP eclogite- and vein-hosted rutile from the Dabie orogen, Central-Eastern China, ***J. Metamorph Geol***, 821-842.
22. Yu, J., Wang, Y., Li, Y., Dong, H., Zhou, D., Han, G., Wu, H.; Wang, G., Mao, P., **Gao, Y.** 2012, Soil organic carbon storage changes in coastal wetlands of the modern Yellow River Delta from 2000 to 2009, ***Biogeosciences,*** 9, 2325-2331.
23. G. Han, L. Yang, J. Yu, G. Wang, P. Mao, **Y. Gao**, 2012, Environmental Controls on Net Ecosystem CO_2 Exchange Over a Reed (Phragmites australis) Wetland in the Yellow River Delta, China, ***Estuaries and Coasts***, DOI 10.1007/s12237-012-9572-1.
24. G. Han, L. Yang, J. Yu, G. Wang, P. Mao, **Y. Gao**, 2012,Winter Soil Respiration from Different Vegetation Patches in the Yellow River Delta, China, ***Environmental Management***, 50:39–49.
25. **Gao, Y**., Snow, J.E., Casey, J.F., Yu, J., 2011. Cooling-induced fractionation of mantle Li isotopes from the ultraslow-spreading Gakkel Ridge. ***Earth. Planet. Sci. Lett***. 301, 231-240.
26. **Gao,Y.,** Casey, J.F., 2011. Lithium isotope composition of ultramafic geological reference materials: JP-1 and DTS-2. ***Geostand. Geoanal. Res***. doi:10.1111/j.1751-908X. 2011. 00117.x.
27. J. Yu, Y. Fu, Y. Li, G. Han, Y. Wang, D. Zhou, W. Sun, **Y.Gao**, and F. X. Meixner, 2011, Effects of water discharge and sediment load on evolution of modernYellow River Delta, China, over the period from1976 to 2009, ***Biogeosciences***, 8, 2427–2435.
28. Snow, J.E., Hellebrand E., v.d. Handt, A., Nauret, F., **Gao, Y.**,Schencke, H.W., 2011, Oblique nonvolcanic seafloor dpreading in Lena Trough, Arctic Ocean, ***Geochemistry Geophysics Geosystems.*** DOI: 10.1029/2011GC003768.
29. Yu, J.B., J.S. Liu, F. X. Meixner, J.D. Wang, **Y. Gao**, Y. Wang, X.N. Qi, and X.B. Chen. 2010. Estimating NPP and nutrient stock in plant in freshwater marsh, northeastern China. ***Clean-soil, air, water*** 38(11),1080-1086.
30. **Yongjun Gao**, Jochen Hoefs, Eric Hellebrand, Anette von der Handt and Jonathan E. Snow, 2006, Trace element zoning in pyroxenes from ODP Hole 735B gabbros: Diffusive exchange or synkinematic crystal fractionation? ***Contributions to Mineralogy and Petrology.*** V. 153 (4), Pages 429-442.

31. **Yongjun Gao**, Jochen Hoefs, Reinhold Przybilla, Jonathan E. Snow, 2006, A complete oxygen isotope profile through the lower oceanic crust, ODP Hole 735B, ***Chemical Geology***. Volume 233, Issues 3-4, 15 October 2006, Pages 217-234.
32. Wilson, D. S., Teagle, D. A. H., Alt, J. C., Banerjee, N. R., Umino, S., Miyashita, S.,Acton, G. D., Anma, R., Barr, S. R., Belghoul, A., Carlut, J., Christie, D. M., Coggon, R. M., Cooper, K. M., Cordier, C., Crispini, L., Durand, S. R., Einaudi, F., Galli, L., **Gao, Y.**, Geldmacher, J., Gilbert, L. A., Hayman, N. W., Herrero-Bervera, E., Hirano, N., Holter, S., Ingle, S., Jiang, S., Kalberkamp, U., Kerneklian, M., Koepke, J., Laverne, C., Vasquez, H. L. L., Maclennan, J., Morgan, S., Neo, N., Nichols, H. J., Park, S. H., Reichow, M. K., Sakuyama, T., Sano, T., Sandwell, R., Scheibner, B., Smith-Duque, C. E., Swift, S. A., Tartarotti, P., Tikku, A. A., Tominaga, M., Veloso, E. A., Yamasaki, T., Yamazaki, S., and Ziegler, C., Drilling to Gabbro in Intact Ocean Crust. ***Science***, 312(5776): 1016-1020.
33. Zhang, Z.M., Xiao, Y.L., Shen, K., **Gao, Y.J.**, 2005, Garnet growth compositional zonation and metamorphic P-T path of the ultrahigh-pressure ecologites from the Sulu orogenic belt, eastern Central China. ***Acta Petrologica Sinica***, 21 (3), 809-818.
34. Jochum, K.P., B. Stoll, K. Herwig, M. Willbold, A.W. Hofmann, M. Amini, S. Aarburg, W. Abouchami, I. Raczek, A. Stracke, O. Alard, C. Bouman, S. Becker, M. Dücking, H. Brätz, R. Klemd, D.de Bruin, D. Canil, D.Cornell , C.-J. de Hoog, C. Dalpé, L. Danyushevsky, **Y. Gao** , J. E. Snow, N. Groschopf, D. Günther ,C. Latkoczy, M. Guillong, E.H. Hauri, H. E. Höfer, Y. Lahaye, K. Horz, D. E. Jacob, S. Kasemann, A.J.R. Kent, T.Ludwig , T.Zack, P.R.D. Mason, A. Meixner, M.Rosner, K. Misawa, B. P. Nash, J. Pfänder, W. R. Premo, W. Sun, M. Tiepolo, R. Vannucci, T. Vennemann, D. Wayne, J. D. Woodhead. 2005, MPI-DING Reference Glasses for In-Situ Microanalysis: New reference values for element concentrations and isotope ratios. ***Geochemistry Geophysics Geosystems***. Vol. 7, Q02008, doi:10.1029/2005GC001060, 2006.
35. Zhang, Z., Rumble, D., Liou, JG, Xiao, Y.L. and **Gao, Y.,** 2005, Oxygen isotope geochemistry of rocks from the Pre-Pilot Hole of the Chinese Continental Scientific Drilling Project (CCSD-PPH1). ***American Mineralogist***, v. 90, 857-863.
36. Tao Wang, Yadong Zheng, Tianbin Li and **Yongjun Gao**. 2004. Mesozoic granitic magmatism in extensional tectonics near the Mongolian border in China and its implications for crustal growth. ***Journal of Asian Earth Sciences***, 23 (2004) pp. 715-729.
37. Wang, T, Zheng, YD, Li, TB, **Gao, YJ**, Ma, MB, 2002, Forceful emplacement of granitic plutons in an extensional tectonic setting: Syn-kinematic plutons in the Yagan-Onch Hayrhan metamorphic core complex, Acta Geologica Sinica-English Edition, 76 (1): 81-88.
38. Mu Zhiguo, **Gao Yongjun**, 2001, The Laser Microprobe Dating Drives K-Ar Geochronology into A New Milestone at the End of 20th Century (in Chinese), ***Acta Scientiarum Naturalium Universitatis Pekinensis***, Vol. 37, No. 1, pp. 136-142.
39. **Gao Y J**, Mu Z G, Liu Y L, Huang B L,2000, K-Ar Dating of Mariana Trough Basalts and Its Significance (in Chinese), ***Geology-Geochemistry***, Vol. 28, No. 3, pp.65-69.
40. **Gao Y J**, Mu Z G, Wu S Y, 2000, Geochemistry and Geochronology of Mariana Trough Basalts (in Chinese), ***Marine Geology & Quaternary Geology***, Vol. 20, No. 3, pp. 53-61.

41. **Gao Y J**, Mu Z G, Ma P X, 1999, The application of Re-Os isotope system to geoscience (in Chinese), ***Geology-Geochemistry***, Vol.27, No. 3, pp.102-110.
42. Huang B.L., **Gao Y.J**., Mu Z.G., 1998, New development on ^{40}Ar-^{39}Ar dating of single-grain glauconies (in Chinese), ***Advance in Earth Sciences***, Vol. 13, No. 4, pp.407-408.

Peer Reviewed Book Chapter and IODP Proceedings (by year; * student as first author)

1. W. Yang, **Y. Gao***, J. F. Casey, 2018, Determination of trace elements in crude oils and fuel oils: a comprehensive review and new data, Solution Chemistry, 159-205.
2. Yongjun Gao, John F. Casey, Data report: major and trace element geochemistry of upper oceanic crust at IODP Site C0012, In Henry, P., Kanamatsu, T., Moe, K., and the Expedition 333 Scientists, Proc. IODP, 333: Tokyo (Integrated Ocean Drilling Program Management International, Inc.) doi:10.2204/iodp.proc.333.204.2014
3. Expedition 333 Scientists, 2011. NanTroSEIZE Stage 2: subduction inputs 2 and heat flow. ***IODP Prel. Rept.,*** 333. (**Yongjun Gao** is the member of the Scientists committee).
4. **Yongjun Gao**, Jian Huang, John F. Casey, 2009, Data report: Trace element Geochemistry of oceanic crust formed at a super-fast spreading ridge, Hole1256D, ***Proceedings of the Integrated Ocean Drilling Program, Expedition 309/312, Super Fast Spreading Rate Crust.***
5. Expedition 309 and 312 Scientists, 2006. Superfast spreading rate crust 3: a complete in situ section of upper oceanic crust formed at a superfast spreading rate. ***IODP Prel. Rept.,*** 312. doi:10:2204/iodp.pr.312.2006. (**Yongjun Gao** is the member of the Scientists committee)
6. Expedition 309 Scientists, 2005. Superfast spreading rate crust 2: a complete in situsection of upper oceanic crust formed at a superfast spreading rate. ***IODP Prel. Rept., 309***. doi:10:2204/iodp.pr.309.2005. (**Yongjun Gao** is the member of the Scientists committee)
7. Snow, J. E. and petrology group ARK XX-2 (sub), 2004, Petrology of Lena Trough and Gakkel Ridge in: P. Lemke et al. (sub). Cruise Report, Polarstern ARK XX-2. ***Reports on Polar and Marine Research***, Alfred-Wegener-Institut for Polar and Marine Research, Bremerhaven, Germany. (**Yongjun Gao** is the member of the petrology group).
8. Snow, J. E. and Petrology Group, ARK VXII-2 (2002) ARK XVII/2 Petrology cruise report: Petrogenesis of magmatic and amagmatic crust along the world's slowest spreading mid-ocean ridge. In: Thiede, J. (ed) (2002) Cruise report, ARK XVII/2, ***Reports on Polar and Marine Research***. (**Yongjun Gao** is the member of the petrology group).

Selected Conference Presentations: (By Year; * Student as first author)

1. J Casey, **Y. Gao**, T Sun, KA Bissada , 2018, Single reaction chamber microwave sample preparation for determination of 57 major, minor, trace and ultra-trace elements and V, Fe and S stable isotope ratios for unambiguous fingerprints of crude and refined

oils, by-products, extractable oganic material, kerogen and source rocks, American chemical society 255.

2. TJ Lapen, M Righter, **Y. Gao**, AJ Irving, **2018**, Representative Bulk Elemental Compositions for a Suite of Shergottites, Lunar and Planetary Science Conference 49
3. AJ Irving, SM Kuehner, **Y. Gao**, M Righter, TJ Lapen, **2017**, Petrology and Bulk Composition of Ultramafic Olivine-Orthocumulate Shergottite Northwest Africa 11261, 80th Annual Meeting of the Meteoritical Society, 2017.
4. AJ Irving, SM Kuehner, **Y. Gao**, Y Chen, TJ Lapen, **2017**, Petrology and Bulk Composition of the Oudiyat Sbaa Fluororichterite-Bearing EH5 Chondrite: A Witnessed Fall from Eastern Morocco, D Pitt - 80th Annual Meeting of the Meteoritical Society, 2017.
5. AJ Irving, SM Kuehner, M Righter, TJ Lapen, **Y. Gao**, 2017, Petrologic and Isotopic Characterization of Northwest Africa 10961: An Intermediate Ultramafic Poikilitic Shergottite with Prevalent Shock Melting Features. Lunar and Planetary Science Conference, 2017
6. Casey J, **Gao Y.** & Yang W, 2015, Analysis of Low Abundance Trace Metals and $^{51}V/^{50}V$ Isotope Ratios in Crude Oils: New Methods For Characterization and Exploration, Goldschmidt Abstracts, 2015, 479.
7. Casey J, **Gao Y.** & Zhang X, 2015, Plate accretion of the ordovician bay of islands ophiolite and hot subduction/subcretion during the evolution of a forearc r-tr-tr triple junction as the taconic arc encroached upon laurentia, 2015 GSA Annual Meeting.
8. Yilin Xiao, **Yongjun Gao**, Fangzhen Teng, He Sun, Thomas J Lapen, Rasmus Andreasen, John Casey, Hai-Ou Gu, 2014, Extreme lithium isotopic fractionation between quartz and garnet in leucogranites: implications for li system during subduction and crustal magma processes, 2014 GSA Annual Meeting.
9. Casey, J. F.; **Gao, Y.**; Benavidez, R.; Dragoi, C., 2010, The Lowest δ^7Li Yet Recorded in MORB Glasses: The Connection with Oceanic Core Complex Formation, Refractory Rutile-bearing Eclogitic Mantle Sources and Melt Supply, American Geophysical Union, Fall Meeting 2010, abstract #V11A-2245.
10. J. F. Casey, **Y. Gao**, 2008, Ultradepleted Residual Mantle Refertilized by Enriched Percolating Melt Within Megamullion-rich Segments of the Mid-Atlantic Ridge Between 13 and 16°N, *Eos Trans. AGU, 89*(53), Fall Meet. Suppl., Abstract T43C-2040.
11. **Y. Gao**, J.F. Casey, J.E. Snow, 2008, Isotopic fractionation of Li during cooling of mantle peridotite from Gakkel Ridge, *Eos Trans. AGU, 89*(53), Fall Meet. Suppl., Abstract V32A-03.
12. **Yongjun Gao**, Jochen Hoefs et al., 2007, Down-Hole variation of lithium and oxygen isotopic composition in Hole 1256D. *AGU fall meeting 2007*.
13. Huang, J, Casey, J.F., **Gao, Y.***, 2007, Trace Element Geochemical Signature of Basalts and Diabases from the Bay of Islands Ophiolite in Western Newfoundland. *AGU fall meeting 2007*.
14. Barzoi, C.A., Casey, J. F., **Gao, Y.***, Lapen, T., Trace Element Study of MORB Glasses from 14°-16°N along Mid-Atlantic Ridge by LA-ICP- MS. *AGU fall meeting 2007*.
15. **Yongjun Gao**, John F. Casey et al., 2007, Trace element geochemistry of oceanic crust formed at a super-fast spreading ridge, Hole 1256D. 2nd Post-cruise meeting of IODP Expedition 309&312, Tokyo.

16. **Yongjun Gao**, Jochen Hoefs, Kari Cooper et al., 2007, Down-Hole variation of lithium and oxygen isotopic composition in Hole 1256D. 2nd Post-cruise meeting of IODP Expedition 309&312, Tokyo.
17. **Y. Gao**, J. Hoefs, E. Hellebrand, A. von der Handt and J. E. Snow, 2005, Trace element diffusion in natural clinopyroxene: Faster than we thought? Geophysical Research Abstracts, Vol. 7, 07927, 2005.
18. Snow, J. E.; Hellebrand, E.; Handt, A. V.; Nauret, F.; **Gao, Y**.; Feig, S.; Jovanovic, Z., 2005, Arctic Lena Trough -- NOT a Mid-Ocean Ridge, American Geophysical Union, Fall Meeting 2005, abstract #T33G-08.
19. **Y. Gao**, J. Hoefs, E. Hellebrand, A. von der Handt and J. E. Snow (2004): Diffuse trace element zoning in clinopyroxene: Indications for melt transport in the lower oceanic crust, 82. Jahrestagung der Deutschen Mineralogischen Gesellschaft, Carlsruhe:*European Journal of Mineralogy* 16, Suppl. 1:42.
20. **Y. Gao**, J.E. Snow, E. Hellebrand, A. von der Handt and J. Hoefs (2003): Petrology of gabbros from Gakkel Ridge, EGU-AGU Meeting, Nice: *Geophysical Research Abstracts* 5, 14591.
21. **Y. Gao**, J. Hoefs and J. E. Snow, 2002, Oxygen isotope profile of the lower ocean crust: an in-situ study by UV-laser-ablation oxygen isotope microprobe, Geochimica et Cosmochimica Acta. 66; 15A, Pages 262.
22. **Yongjun Gao,** Jochen Hoefs and Jonathan E. Snow, 2002, Oxygen isotope profile of the lower ocean crust: an in-situ study by UV-laser-ablation oxygen isotope microprobe. SWIR meeting, Southampton, UK.
23. **Yongjun Gao**, Jochen Hoefs, and Jonathan E. Snow, 2001, Oxygen isotope evolution of the lower ocean crust: an in-situ study by UV-laser-ablation oxygen isotope microprobe, *AGU fall meeting* 2001.
24. J.E.Snow, E. Hellebrand, A. von der Handt, F. Nauret, **Y.Gao**, S.Feig, Z. Jovanovic, S. Gauger (2004), Lena Trough (Arctic Ocean): An oblique 'amagmatic' rift. Arctic Ocean. *Eos Trans. AGU, 85*(47), Fall Meet. Suppl., Abstract T11G-01.
25. E. Hellebrand, J.E.Snow, S.Feig, **Y.Gao**, Z. Jovanovic, F. Nauret (2004), Melt Extraction Versus Melt Stagnation Along the Ultraslow Spreading Lena Trough, Arctic Ocean. *Eos Trans. AGU, 85*(47), Fall Meet. Suppl., Abstract V22A-07.
26. F. Nauret, J. E. Snow, E. Hellebrand, A. von der Handt, **Y. Gao**, S. Feig, Z. Jovanovic (2004) Lena Trough Basalts: Low degree garnet melting signatures. *Eos Trans. AGU,85*(47), Fall Meet. Suppl., Abstract T12A-07.
27. von der Handt, E. Hellebrand, J.E.Snow, S. Feig, **Y. Gao**, Z. Jovanovic, F. Nauret (2004) Fresh Abyssal Peridotites -- not an Oxymoron! *Eos Trans. AGU, 85*(47), Fall Meet. Suppl., Abstract T13B-1358.

Funding and Awards (By Year)

2024-2027 Hydrothermal Experimental and Analytical Work on Ultramafic Rocks from the Bay of Islands Ophiolite to Simulate and Understand Processes for Optimal Rock-based Orange Hydrogen Production, Aramco Americas, PIs John F. Casey, Qi Fu and Yongjun Gao, $362,648.

2019-2022 Joint Industry R&D Consortium Program by UH-CPG, $600,000, **CO-PI** (K. Adry Bissada, John. F. Casey, **Yongjun Gao**).
2017-2019 Geochemical Analysis of Shale and Bitumen from Core and Crude Oil from Four Associated Wells: Documenting Redox Indicators, Paleo-environment, Production Allocation and Reservoir Depletion (EP Energy), $290,625. **CO-PI** (K. Adry Bissada, John. F. Casey, **Yongjun Gao**).
2015-2018 Acquisition of Ultrawave Microwave Digestion System, Milestone, INC. $100,000. **Co-PI** (John F. Casey and **Yongjun Gao**).
2015-2018 Acqusition of Agilent QQQ-ICP-MS instrumentation, $350,000. Sponsor Agilent Technologies **Co-PI** (John F. Casey and **Yongjun Gao**).
2012-2015 Inter-mineral lithium isotopic fractionation investigations-taking rocks from the Dabie-Sulu area as examples, **CO-PI**, (Yilin Xiao and **Yongjun Gao**), ￥900,000,CNSF,China
2011-2014 Depth-profile of geochemical compositions and alterations of basement rock prior to subduction front: IODP drilling site C0012, **Yongjun Gao**, **PI**, $14,957, U.S. Science Support Program, USA
2011-2014 Trace element and isotope study on allanite-epidote in Dabie-Sulu UHP gneiss and eclogite, **CO-PI (**Yilin Xiao and **Yongjun Gao)** ￥840,000, CNSF,China
2006-2009 Down-Hole Major, Trace, and Isotopic Variation of Whole Rocks and Minerals in IODP Hole 1256D, **Yongjun Gao**, **PI**, $26,928, U.S. Science Support Program, USA
2004-2005 Max-Planck Society Postdoctoral Fellowship, Germany
2000-2004 Scholarship from Gottlieb Daimler- und Karl Benz-Stiftung, Germany

Unfunded Proposal Applications:

2020 The Role of Molecular Structure of Lithium–Bearing Kerogen on 6Li–7Li Isotope Fractionation, DOE Proposal (DE-FOA-0002181), $379,308. Kyung Jae Lee (PI); Yongjun Gao (Co-PI) John F. Casey (Co-PI).
2020 Aerosol and/or cloud research associated with ARM's TRACER campaign, DOE Proposal (DE-FOA-0002198), $755,549.00. Bernhard Rappenglueck (PI), Yongjun Gao (Co-PI), Gustavo Cuchiara (Co-PI) and Alfred Wiedensohler (CO-PI).
2018 A Proposal to Enhance a Core Faciltiy Center for Advanced Analytical Geochemistry (CAAG), John F. Casey and Yongjun Gao, UH Internal Fund.
2016 Coupled Investigation on Vanadium Isotope and Trace Elements Composition of Crude Oil, Yongjun Gao and John F. Casey, ACS Petroleum Research Fund.
2014 Silicate weathering and "snowball" earth events: A new approach involving Li isotopic signature in Neoproterozoic "Cap-Carbonates", Proposal No. 1424568, Yongjun Gao and John F. Casey, NSF.
2013 Lithium Isotopic Fractionation During Slab Dehydration- A mineral Study on Lithium Systematics in High Pressure Metamorphic Rocks, Proposal No. 1347988, Yongjun Gao, John F. Casey and Yilin Xiao, NSF.
2011 Acquisition of an ICP-OES at the University of Houston, Department of Earth and Atmospheric Sciences. Proposal No. 1128966, Yongjun Gao, NSF

2009 Lithium Elemental and Isotopic Systematics of Oceanic Upper Mantle. Resubmission, Yongjun Gao, John F. Casey, and J. E. Snow, NSF

2008 Lithium elemental and isotopic systematics of Mid-Ocean Ridge mantle. Proposal No. 075226, Yongjun Gao, John F. Casey, and J. E. Snow, NSF.