

Vincent Johan van Hinsberg

Office

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Language proficiency

Fluent in Dutch and English
Intermediate-level French

Minerals are the principal source of information on the conditions and processes in natural and man-made environments. My research focuses on extracting this information using a combined approach of experiments, thermodynamic modelling and the micro-analytical study of samples.

Research aims and interests

- gain a fundamental understanding of element uptake by minerals from experiments and atomistic simulations, and use this to reconstruct physical and chemical conditions in the formation environment from mineral composition
- explore the use of trace elements in minerals, metals, fluids and glass as a provenance and process indicator
- use thermodynamic modeling to predict and understand the mineralogy of materials, mineral compositions, mass and energy balance, and the evolution therein during natural and industrial processes
- Provide the thermodynamic data and models needed for the transition to carbon-neutral and circular processing of resources

Current position **Associate Professor** and Osisko Faculty Scholar in the Department of Earth and Planetary Sciences, McGill University in Canada.
2018-present
2023-present **Co-Director** of the GEOTOP inter-university strategic research centre, Canada

Previous positions and education

2022 **Knowledge Group Leader**, Microstructure and Surface Characterization Group, Tata Steel Europe R&D, the Netherlands.
2019-2022 **Principal Researcher**, Microstructure and Surface Characterization Group, Tata Steel Europe R&D, the Netherlands.
2012-2018 **Assistant Professor** and Osisko Faculty Scholar in the Department of Earth and Planetary Sciences, McGill University in Canada.
2012-present **Director** of the McGill Laser-Ablation ICP-MS facility.
2010-2012 Marie Curie Postdoctoral Research Fellow in the Department of Earth Sciences, University of Oxford
2007-2010 Postdoctoral Fellow and Tomlinson Scholar in the Hydrothermal Geochemistry Laboratory of McGill University, Montreal, Canada
2006-2007 Researcher at the Ceramics Research Centre, Tata Steel RD&T, the Netherlands
2002-2006 PhD position at the University of Bristol in the UK, with a thesis on “Tourmaline: monitor of the *P-T-X* evolution in rocks”, supervised by Dr. John C. Schumacher.
2001-2002 Researcher at the Ceramics Research Centre, Tata Steel RD&T, the Netherlands
1997-2001 MSc degree in Geochemistry at Utrecht University, the Netherlands, graduated cum laude
1996-1997 Cum laude Propadeuse degree in Geology at Utrecht University, the Netherlands

Teaching experience

- McGill undergraduate and graduate teaching duties; Metamorphic Petrology, Geostatistics and Data Analysis, Auvergne Fieldschool (4 weeks), Analytical Techniques, Thermodynamics of Hydrothermal Solutions, Pseudosection Modelling (Copenhagen University, Denmark, 2019; McGill, 2018), Ore Forming Processes, New England Fieldschool, and Applied Geochemistry. Course details are available at my teaching materials website: www.eps.mcgill.ca/~hinsberg/intro/Teaching.html

- Visiting lecturer in metamorphic petrology at the University of Botswana (2005) for courses in Metamorphic Petrology and Optical Microscopy (third year undergraduate level) and instructor for the Endogenic Petrology fieldschool in Ploumanac’h, Brittany for the École Nationale Supérieure de Géologie de Nancy (2011 and 2012).
- DIVEX shortcourse on “Extracting Value from Geochemical Data” in Québec, Canada (Nov 2012).
- Shortcourse associated with the AEMQ - X’PLOR conference in Montreal on “Exploring and mining your geo-data: Quality control, Data descriptors and Process identification” (2014, 2016).
- Geotop inter-university short course in Geostatistics for students, postdocs and staff (2024).

Analytical competence

Throughout my research, I have used a wide diversity of analytical methods, and have developed dedicated routines and analytical strategies. The techniques I am most familiar with include;

- electron microscopy and microprobe, including WDS and EDS element quantification and mapping
- X-ray fluorescence and diffraction, including Rietveld refinement of XRD spectra
- synchrotron X-ray mapping and diffraction (Diamond Lightsource, UK, and the CLS in Saskatoon, Canada)
- optical microscopy using transmitted and reflected light and associated image analyses
- wet chemical techniques; ICP-OES, ICP-MS, flame-AAS/AES, colorimetry and ion-selective electrodes
- secondary ion mass spectrometry (Cameca ims 1270 at the CRPG in Nancy)
- in-situ laser-ablation quadrupole, time-of-flight and magnetic sector ICP-MS
- thermo-gravimetric and calorimetric techniques (TGA, DTA and DSC)

Experiments have become an increasingly important component in my research, and include mineral synthesis and element exchange experiments using one atmosphere furnaces, cold-seal hydrothermal pressure vessels, internally heated pressure vessels and the piston-cylinder apparatus. I set up an experimental facility at McGill University that includes a rapid-quench cold-seal pressure vessel and rocking autoclave that I designed and built.

Academic and administrative contributions

- 65 peer reviewed publications, 2 in review; 2650 citations; *h*-index = 33; *i10*-index = 51 (Google Scholar).
- Executive Committee member for the GEOTOP research centre (www.geotop.ca).
- Councillor for the Mineralogical Association of Canada (2015-2017) and member of the MAC Student Scholarship, Young Scientist Award, Travel Grant, and Councillor Nominating committees.
- Member of the Mineralogical Society of America workshop committee (2019).
- Co-convener of oral presentation sessions at the AGU, Goldschmidt, GAC-MAC, and SGA conferences.
- Member of the organizing committees for the RFG2018 conference and the Tur2017 and Tur2021 meetings.
- Coordinator of the international effort to develop tourmaline reference materials for trace elements
- Associate editor for the European Journal of Mineralogy
- Special issue editor for the Canadian Mineralogist (vol. 49, issue 1) on tourmaline as an indicator mineral, and a Frontiers Special Topic on The Early Crust and its formation.
- Reviewer for, amongst others, American Mineralogist, CALPHAD, Canadian Mineralogist, Chemical Geology, Economic Geology, Journal of Petrology, Lithos, Nature Geoscience, Geochemical Perspectives Letters and research proposals to the NSERC-RTI program (Canada), Deutsche Forschungsgemeinschaft (Germany), the National Science Foundation (US) and the Los Alamos National Laboratory (US).
- Member of the McGill McCall MacBain Foundation scholarship committee (2020, 2021), of the Gault Reserve research grants committee (2023), and chair of the Wares Postdoctoral Fellowship committee (2022).

Research students

Since 2012, I have supervised 5 postdocs, 10 PhD, 5 MSc and 7 BSc research students at McGill University working on a variety of topics around a central theme of understanding element partitioning among minerals, melts and aqueous fluids. My graduated students and postdocs work in research in academia and industry, in policy development and advocacy, and in technical and environmental consultancies.

Grants, scholarships and awards

I was awarded the Mineralogical Association of Canada **Young Researcher Medal** in 2019 and the **Hutchinson Medal** of the Geological Association of Canada in 2021.

In all stages of my academic career, I have funded my research through highly competitive Fellowships and Grants starting with a University of Bristol Strategic Postgraduate Scholarship and NERC Small Research Grant for my PhD, a Rubicon Postdoctoral Fellowship from the Netherlands Organisation for Scientific Research and Tomlinson Scholarship for my Postdoc at McGill, and a European Union Marie Curie IIF Research Fellowship for my position in Oxford.

My research program at McGill is funded by national and provincial grants for operating costs and to acquire equipment, including FRQNT New Researcher and Team grants, NSERC Discovery and RTI grants and a Canadian Foundation for Innovation Leaders Opportunity Fund. I have been awarded \$2.4M in funds as principal investigator and \$9.8M as a co-investigator.

Academic collaborations

Artas Migdisov - Los Alamos National Laboratory (US)	Horst Marschall - Goethe University Frankfurt (Germany)
Barbara Dutrow - Louisiana State University (US)	In-Ho Jung - Seoul National University (South Korea)
Bernie Wood - University of Oxford (UK)	Jake Lowenstern - USGS (US)
Bjarni Gautason - ISOR (Iceland)	John Schumacher - University of
Bob Trumbull - GFZ Potsdam (Germany)	John Slack - USGS (US) retired
Corentin Caudron - University of Cambridge (UK)	Kristoffer Szilas - Copenhagen University (Denmark)
Darrell Henry - Louisiana State University (US)	Maria Martinez-Cruz - OVSICORI-UNA (Costa-Rica)
Daniele Pinti - UQÀM (Canada)	Nynke Keulen - GEUS (Denmark)
Eleanor Berryman - CANMET-NRC (Canada)	

Outreach

- Moderator of the mailing list for the Perple_X suite of thermodynamic modelling programs.
- Invited participant of the 2014 Cities on Volcanoes workshop at Kawah Ijen volcano in Indonesia, aimed at communicating volcanic and environmental hazards associated with this system to government officials
- Geological guide on a fieldtrip for amateur geologists to Namibia and Botswana (2013).
- Scientific advisor for documentaries on Kawah Ijen for the BBC (Forces of Nature: Moth and The Flame, 2016), Der Spiegel TV (2016), and National Geographic (2017, 2020).
- Interviewed by Science Friday about our research on Kawah Ijen (<http://sciencefriday.com/blogs/07/03/2014/picture-of-the-week-kawah-ijen-volcano.html>)
- Public talk in support of the UNESCO Geopark application for the Ijen Caldera in Indonesia.

Recent publications (past 5 years)

1. Poulsen MD, Keulen N, **van Hinsberg VJ**, Kolb J, Frei R, Thomsen TB (2023) Geological processes defining the formation of plumasite-type corundum in the Paleoproterozoic Isertoq Terrane, South-East Greenland. *Precambrian Research*: 385, 106940
2. Stüeken EE, Szilas K, **van Hinsberg VJ** (2022) Evaluating the biosignature potential of nitrogen concentrations in graphite and associated K-silicates. *Chemical Geology*, 121274
3. Crotty C, **van Hinsberg V**, Szilas K (2023) Pressure-Temperature history of the 1.9 Ga Nagssugtoqidian Orogeny in the Tasiilaq Region, South-East Greenland: Amphibolite facies metamorphism of a Palaeoproterozoic accretionary prism. *Lithos*, 106993.
4. Saby M, **van Hinsberg V**, Pinti DL, Berlo K, Gautason B, Sigurðardóttir Á, Brown K, Rocher O (2022) The behaviour of metals in deep fluids of NE Iceland. *Scientific Reports*: 12, 21952
5. Nisbet C, Migdisov AA, Goncharov V, **van Hinsberg V**, Williams-Jones AE, Xu H, Guo X (2022) The solubility and speciation of Nd in carbonate-bearing hydrothermal fluids up to 250°C. *Chemical Geology*: 611, 121122
6. Crotty C, **van Hinsberg V**, Szilas K, Poulsen D (2022) Palaeoproterozoic arc related supracrustal units from the Tasiilaq Region, SE Greenland: Insights into the convergence of the Rae and North Atlantic Cratons. *Precambrian Research*: 379, 106808
7. Berlo K, **van Hinsberg V**, Lauzeral R, Zwillich F, Gonzalez J (2022) The analysis of volcanic brines by freezing stage tandem LIBS-ICP-MS. *Chemical Geology*: 120910.
8. Pinti DL, Haut-Labourdette M, Poirier A, Saby M, **van Hinsberg VJ**, Berlo K, Castro MC, Gautason B, Sigurðardóttir ÁK. (2022) $^{87}\text{Sr}/^{86}\text{Sr}$ ratios and atmospheric noble gases in Theistareykir geothermal fluids: A record of glacial water. *Geosciences* 12: 119
9. **van Hinsberg V**, Berlo K, Pinti D, Ghaleb B (2021) Gypsum precipitating from volcanic effluent as an archive of volcanic activity. *Frontiers in Earth Science* 9: 764087.
10. **van Hinsberg V**, Yakymchuk C, Jepsen ATK, Kirkland CL, Szilas K (2021) The corundum conundrum: Constraining the compositions of fluids involved in ruby formation in metamorphic melanges of ultramafic and aluminous rocks. *Chemical Geology* 571: 120180.
11. Yakymchuk C, **van Hinsberg VJ**, Kirkland CL, Szilas K, Kinney C, Kendrick J, Hollis JA (2021) Corundum (ruby) growth during the final assembly of the Archean North Atlantic Craton, southern West Greenland. *Ore Geology Reviews* 104417.
12. Nisbet H, Migdisov AA, Williams-Jones AE, **van Hinsberg VJ**, Xu H, Roback R (2021) The solubility of thorium in carbonate-bearing solutions at hydrothermal conditions. *Geochimica et Cosmochimica Acta* (in press).
13. Codeço MS, Weis P, Trumbull RB, **van Hinsberg V**, Pinto F, Lecumberri-Sanchez P, Schleicher AM (2021) The imprint of ore-forming fluids on trace element contents in white mica and tourmaline from the Panasqueira W-Sn-Cu deposit, Portugal. *Mineralium Deposita* 56: 481-508.
14. Guitreau M, Szilas K, **van Hinsberg V** (2021) Editorial: The Early Earth Crust and Its Formation. *Frontiers in Earth Science* 9: 650114.
15. Utami SB, **van Hinsberg VJ**, Ghaleb B, van Dijk AE (2020) Oxygen isotope fractionation between gypsum and its formation waters: Implications for past chemistry of the Kawah Ijen volcanic lake, Indonesia. *American Mineralogist* 105: 756-763.
16. Beard C, **van Hinsberg VJ**, Stix J, Wilke M (2020) The effect of fluorine on clinopyroxene/melt trace-element partitioning. *Contributions to Mineralogy and Petrology* 175: 1-19
17. Saby M, Pinti DL, **van Hinsberg V**, Gautason B, Sigurðardóttir Á, Castro C, Hall C, Óskarsson F, Rocher O, Hélie J-F, Méjean P (2020) Sources and transport of fluid and heat at the newly-developed Theistareykir Geothermal Field, Iceland. *Journal of Volcanology and Geothermal Research* 405: 107062
18. Guzman HM, Kaiser S, **van Hinsberg VJ** (2020) Accumulation of trace elements in leatherback turtle (*Dermochelys coriacea*) eggs from the south-western Caribbean indicates potential health risks to consumers. *Chemosphere* 243: 125424
19. Berlo K, **van Hinsberg V**, Suparjan, Purwanto BH, Gunawan H (2020) Using the composition of fluid seepage from

- the magmatic-hydrothermal system of Kawah Ijen volcano, Indonesia, as a monitoring tool. *Journal of Volcanology and Geothermal Research*, 399: 106899
20. Beard C, **van Hinsberg VJ**, Stix J, Wilke M (2020) Clinopyroxene/melt trace element partitioning in sodic alkaline magmas. *Journal of Petrology* 60: 1797–1823.
 21. Guzman HM, Kaiser S, **van Hinsberg VJ** (2020) Accumulation of trace elements in leatherback turtle (*Dermochelys coriacea*) eggs from the south-western Caribbean indicates potential health risks to consumers. *Chemosphere* 243:125424.
 22. **van Hinsberg VJ**, Berlo K, Lowenstern J (2020) An Experimental Investigation of Interaction between Andesite and Hyperacidic Volcanic Lake Water. *Minerals* 10: 96.
 23. Yang L, **van Hinsberg VJ**, (2019) Liquid immiscibility in the CaF_2 -granite system and trace element partitioning between the immiscible liquids. *Chemical Geology* 511, 28–41.
 24. Utami SB, **van Hinsberg VJ**, Ghaleb B, Pinti D (2019) Growth-zoned gypsum stalactite from the Kawah Ijen volcanic lake, Indonesia, records a >40-year record of volcanic activity. *Bulletin of Volcanology* 81, no. 52
 25. Nisbet H, Migdisov AA, Williams-Jones AE, Xu H, **van Hinsberg VJ** (2019) Challenging the thorium-immobility paradigm. *Scientific reports* 9: 1-6.

Recent conference and invited presentations (past 3 years)

1. **van Hinsberg V** (2023) Deciphering the compositions of fluids in the Earth: Rubies, tourmaline and the origins of life. Invited lecture, Copenhagen University, Denmark
2. **van Hinsberg V** (2023) Deciphering the compositions of fluids in the Earth: Rubies, volcanoes and the origins of life. Invited lecture, Université d'Orléans, France
3. Kendrick J, Duguet M, **van Hinsberg V**, Yakymchuk C (2023) Field observations, petrography, geochemistry, and phase equilibrium modelling: The four pillars of petrological investigations of crustal differentiation. Goldschmidt conference (invited)
4. Barber N, Handini E, Berlo K, Buono G, Pappalardo L, Edmonds E, **van Hinsberg V** (2023) Combined 3D Textural and Mineral Chemistry Insights into the Ijen Caldera Complex, East Java, Indonesia. Goldschmidt conference.
5. **van Hinsberg V**, Berlo K, Saby M, Pinti DL, Gautason B, Sigurðardóttir ÁK (2023) Supersaturated metal contents in hydrothermal fluids of the Northern Volcanic Zone, Iceland: Implication for element transport in the crust. Goldschmidt conference.
6. **van Hinsberg V** (2021-2022) *Hutchinson Medalist Lecture tour*: Deciphering the compositions of fluids in the Earth: Rubies, volcanoes and the origins of life. Laval University; Geological Survey of Canada; UBC Okanagan; Dalhousie University.
7. **van Hinsberg V** (2021-2022) *Hutchinson Medalist Lecture tour*: Sending probes into the deep Earth to understand subduction. Memorial University of Newfoundland; University of Manitoba; Yukon Survey; Lakehead University; Mt Royal University, University of Calgary; St Mary University.
8. Nisbet H, Migdisov A, **van Hinsberg V**, Williams-Jones A. (2022) The Solubility and Speciation of Nd in Carbonate-Bearing Hydrothermal Fluids. Goldschmidt conference, Honolulu, Hawaii, <https://doi.org/10.46427/gold2022.8991>.
9. D'Amato D, **van Hinsberg VJ** (2022) Tourmaline: A Tracer of Metamorphism in the Eoarchean. Geological Society of America annual meeting, Denver. DOI:10.1130/abs/2022AM-381657
10. **van Hinsberg V**, Saby M, Pinti DL, Berlo K, Gautason B, Sigurðardóttir Á (2022) *Keynote*: Sources and transport of metals in magmatic-hydrothermal systems. GAC-MAC annual meeting, Halifax, Canada.
11. **van Hinsberg V**, Szilas K (2021) BIF or MIF? Using trace elements to identify the nature of iron formations. Goldschmidt conference, Lyon, France, 4-9 July.
12. Berlo K, **van Hinsberg V**, Pinti DL, Ghaleb B, Lauzeral R (2021) Reading the record of magma degassing from gypsum precipitates. Goldschmidt conference, Lyon, France, 4-9 July.
13. Saby M, **van Hinsberg V**, Pinti DL, Berlo K, Rocher O, Sigurðardóttir ÁK, Gautason B, Brown K (2021) Trace volatile metals and noble gases in deep sampling at Theistareykir geothermal field, NE Iceland: it is not only about volcanic arcs. Goldschmidt conference, Lyon, France, 4-9 July.

14. Pinti DL, Haute-Labourdette M, Saby M, Poirier A, **van Hinsberg V**, Berlo K, Castro CM, Gautason B, Sigurðardóttir ÁK (2021). $^{20}\text{Ne}/^{36}\text{Ar}$ in geothermal fluids of Theistareykir: a possible thermometer of water-rock interactions? Goldschmidt conference, Lyon, France, 4-9 July.
15. **van Hinsberg V**, Yakymchuk C, Kirkland C, Szilas K (2021) The corundum conundrum: Constraining the compositions of fluids involved in metasomatic corundum formation. EGU General Assembly, Vienna, Austria, EGU21-10229
16. **van Hinsberg V**, Yakymchuk C, Kirkland C, Szilas K (2021) Thermodynamic modelling of deep crustal fluids: The compositions of fluids involved in ruby formation in Southwest Greenland. GAC-MAC annual meeting, London, Canada.
17. Nisbet H, Migdisov A, Williams-Jones A, **van Hinsberg V**, Xu H, Roback R (2021) The Solubility of Thorium in Carbonate-Bearing Solutions at Hydrothermal Conditions. Goldschmidt conference, Lyon, France, 4-9 July.
18. Cruz MF, **van Hinsberg VJ** (2021) Does silicate-borosilicate melt immiscibility occur in natural settings? An assessment based on experimentally synthesized tourmaline nodules? NATURA 111 (1): 23-24 - TUR2021 3rd International Conference on Tourmaline, Elba, Italy.
19. Roozen S, **van Hinsberg VJ**, Dachs E, Redhammer G, Benisek A, Guo X, Ryan DH, Grevel K-D (2021) A thermodynamic model for Li-free tourmaline. NATURA 111 (1): 87-88 - TUR2021 3rd International Conference on Tourmaline, Elba, Italy.
20. **van Hinsberg VJ**, Guo H (2021) Tourmaline reference materials for trace element analyses: a progress update. NATURA 111 (1): 115-116 - TUR2021 3rd International Conference on Tourmaline, Elba, Italy.
21. **van Hinsberg VJ** (2021) *Keynote*: Tourmaline elemental partitioning with melts, fluids and minerals: how to interpret tourmaline (trace element) composition. NATURA 111 (1): 113-114, - TUR2021 3rd International Conference on Tourmaline, Elba, Italy.
22. Saby M, Pinti DL, **van Hinsberg V**, Gautason B, Sigurðardóttir AK, Castro C, Hall C, Hélie JF, Rocher O (2021) Sources and transport of fluid and heat revealed at the newly developed Theistareykir Geothermal Field, Iceland. World Geothermal Congress, Reykjavik, Iceland.

A full list of publications and presentations is provided as a separate document

Full list of publications

Peer-reviewed publications

1. Poulsen MD, Keulen N, **van Hinsberg VJ**, Kolb J, Frei R, Thomsen TB (2023) Geological processes defining the formation of plumasite-type corundum in the Paleoproterozoic Isertoq Terrane, South-East Greenland. *Precambrian Research*: 385, 106940
2. Stüeken EE, Szilas K, **van Hinsberg VJ** (2022) Evaluating the biosignature potential of nitrogen concentrations in graphite and associated K-silicates. *Chemical Geology*, 121274
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5. Nisbet C, Migdisov AA, Goncharov V, **van Hinsberg V**, Williams-Jones AE, Xu H, Guo X (2022) The solubility and speciation of Nd in carbonate-bearing hydrothermal fluids up to 250°C. *Chemical Geology*: 611, 121122
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8. Pinti DL, Haut-Labourdette M, Poirier A, Saby M, **van Hinsberg VJ**, Berlo K, Castro MC, Gautason B, Sigurðardóttir ÁK. (2022) $^{87}\text{Sr}/^{86}\text{Sr}$ ratios and atmospheric noble gases in Theistareykir geothermal fluids: A record of glacial water. *Geosciences* 12: 119
9. Nisbet H, Migdisov AA, Williams-Jones AE, **van Hinsberg VJ**, Xu H, Roback R (2022) The solubility of thorium in carbonate-bearing solutions at hydrothermal conditions. *Geochimica et Cosmochimica Acta* 330: 80-92
10. Yakymchuk C, **van Hinsberg VJ**, Kirkland CL, Szilas K, Kinney C, Kendrick J, Hollis JA (2022) Corundum (ruby) growth during the final assembly of the Archean North Atlantic Craton, southern West Greenland. *Ore Geology Reviews* 104417.
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13. Codeço MS, Weis P, Trumbull RB, **van Hinsberg V**, Pinto F, Lecumberri-Sanchez P, Schleicher AM (in press) The imprint of ore-forming fluids on trace element contents in white mica and tourmaline from the Panasqueira W-Sn-Cu deposit, Portugal. *Mineralium Deposita* 56: 481-508.
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17. Guzman HM, Kaiser S, **van Hinsberg VJ** (2020) Accumulation of trace elements in leatherback turtle (*Dermochelys coriacea*) eggs from the south-western Caribbean indicates potential health risks to consumers. *Chemosphere* 243: 125424
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20. Guzman HM, Kaiser S, **van Hinsberg VJ** (2020) Accumulation of trace elements in leatherback turtle (*Dermochelys coriacea*) eggs from the south-western Caribbean indicates potential health risks to consumers. *Chemosphere* 243:125424.

21. **van Hinsberg VJ**, Berlo K, Lowenstern J (2020) An Experimental Investigation of Interaction between Andesite and Hyperacidic Volcanic Lake Water. *Minerals* 10: 96.
22. Yang L, **van Hinsberg VJ**, (2019) Liquid immiscibility in the CaF_2 -granite system and trace element partitioning between the immiscible liquids. *Chemical Geology* 511, 28–41.
23. Utami SB, **van Hinsberg VJ**, Ghaleb B, Pinti D (2019) Growth-zoned gypsum stalactite from the Kawah Ijen volcanic lake, Indonesia, records a >40-year record of volcanic activity. *Bulletin of Volcanology* 81, no. 52
24. Nisbet H, Migdisov AA, Williams-Jones AE, Xu H, **van Hinsberg VJ** (2019) Challenging the thorium-immobility paradigm. *Scientific reports* 9: 1-6.
25. **van Hinsberg V**, Crotty C, Roozen S, Szilas K, Kisters A. (2018). Pressure–Temperature History of the >3 Ga Tartoq Greenstone Belt in Southwest Greenland and Its Implications for Archaean Tectonics. *Geosciences*. 8: 367.
26. Nisbet H, Migdisov A, Xu H, Guo X, **van Hinsberg V**, Williams-Jones AE (2018) An experimental study of the solubility and speciation of thorium in chloride-bearing aqueous solutions at temperatures up to 250°C. *Geochimica et Cosmochimica Acta* 239: 363-373.
27. Yang L, **van Hinsberg V**, Samson I (2018) A new method to deconvolute binary mixture in LA-ICP-MS analyses to quantify the composition of phases smaller than the laser spot size. *Journal of Analytical Atomic Spectrometry*, 33: 1518-1528.
28. Lowenstern JB, **van Hinsberg VJ**, Berlo K, Liesegang M, Iacovino K, Bindeman IN, Wright HM (2018) Opal-A in glassy pumice, acid alteration, and the 1817 phreatomagmatic eruption at Kawah Ijen (Java), Indonesia. *Frontiers in Earth Science* 6:11.
29. Szilas K, **van Hinsberg VJ**, McDonald I, Næraa T, Rollinson H, Adetunji J, Bird D. (2018). Highly refractory Archaean peridotite cumulates: Petrology and geochemistry of the Seqi Ultramafic Complex, SW Greenland. *Geoscience Frontiers*, 9: 689-714
30. **van Hinsberg VJ**, Franz G, Wood BJ (2017) Determining subduction-zone fluid composition using a tourmaline mineral probe. *Geochemical Perspectives Letters* 3:160-169.
31. Ross D, Guzmán H, Potvin C, **van Hinsberg VJ** (2017). A review of toxic metal contamination in marine turtle tissues and its implications for human health. *Regional Studies in Marine Science*. 15:1-9.
32. Berryman E, Kutzschbach M, Trumbull R, Meixner A, **van Hinsberg V**, Kasemann S, Franz G. (2017) Tourmaline as a petrogenetic indicator in the Pfitsch Formation, Western Tauern Window, Eastern Alps. *Lithos* 284:138-155.
33. Siegel K, Williams-Jones AE, **van Hinsberg VJ** (2017). The Amphiboles of the REE-rich A-type peralkaline Strange Lake pluton - Fingerprints of magma evolution. *Lithos* 288-289: 156-174.
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35. **van Hinsberg VJ**, Migdisov AA, Berlo K, Williams-Jones AE. (2016) CO₂-fluxing crashes metal mobility in magmatic vapour. *Geochemical Perspectives Letters* 6:824.
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37. **van Hinsberg VJ**, Vigouroux N, Palmer S, Berlo K, Scher S, Mauro G, McKenzie J, Williams-Jones G, Williams-Jones AE, Fischer T (2016) Element flux to the environment of the passively degassing crater lake-hosting Kawah Ijen volcano, Indonesia, and implications for estimates of the global volcanic flux. *Geological Society of London Special Publication* 437:2.
38. Gunawan H, Caudron C, Pallister J, Primulyana S, Christenson B, McCausland W, **van Hinsberg V**, Lewicki J, Rouwet D, Kelly P, Kern C, Werner C, Johnson JB, Utami SB, Syahbana DK, Saing U, Suparjan, Purwanto BH, Sealing C, Martinez Cruz M, Maryanto S, Bani P, Laurin A, Schmid A, Bradley K, Nandaka IGMA, Hendrasto M (2016). New insights into Kawah Ijen's volcanic system from the wet volcano workshop experiment. *Geological Society London Special Publications*, 437:7.
39. Poulsen MD, Paulick H, Rosa D, **van Hinsberg VJ**, Petersen J, Thomsen LL (2015) Follow-up on Ujarassiorit mineral hunt finds and outreach activities, South-East Greenland. *Geological Survey of Denmark and Greenland Bulletin* 33, 53-56.
40. Caudron C, Syahbana D, Lecocq T, **van Hinsberg V**, McCausland, W, Triantafyllou A, Camelbeeck T, Bernard A (2015) Kawah Ijen volcanic activity: a review. *Bulletin of Volcanology* 77: 1-39.
41. Keulen K, Schumacher JC, Scherstén A, Kokfelt TF, Næraa T, Szilas K, **van Hinsberg VJ**, Schlatter DM, Windley BF. (2014) Meso- and Neoproterozoic geological history of the Bjørnesund and Ravns Storø Supracrustal Belts, southern West Greenland: settings for gold enrichment and corundum formation. *Precambrian Research* 254: 36-58.
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44. Szilas K, **van Hinsberg VJ**, Creaser R, Kisters AFM (2014) Remnants of Mesoarchaeon Moho in an island arc-related crust section – the petrogenesis of serpentinites in the Tartoq Group, SW Greenland. *Lithos* 198–199: 103-116.
45. Berlo K, **van Hinsberg VJ**, Vigouroux N, Gagnon JE, Williams-Jones AE (2014) Sulfide breakdown controls metal signature in volcanic gas at Kawah Ijen volcano, Indonesia. *Chemical Geology* 371: 115-127.
46. **van Hinsberg V**, Zinngrebe E, Melzer S, van der Laan S, Jonckbloedt R (2013) Influence of Texture and Trace Element Composition on Hematite to Wüstite Reduction Rates of Fine Iron ore Fragments. *ISIJ International* 53: 2018–2027.
47. Migdisov AA, Bychkov AYu, Williams-Jones AE, **van Hinsberg VJ** (2013) A predictive model for the transport of copper by HCl-bearing water vapour in ore-forming magmatic-hydrothermal systems: Implications for copper porphyry ore formation. *Geochimica et Cosmochimica Acta* 10.1016/j.gca.2013.12.024.
48. Szilas K, **van Hinsberg VJ**, Kisters AFM, Hoffmann JE, Scherstén A, Kokfelt TF, Windley BF, Münker C. (2013) Remnants of arc-related Mesoarchaeon oceanic crust in the Tartoq Group of SW Greenland. *Gondwana Research* 23: 436–451.
49. Kisters AFM, **van Hinsberg VJ**, Szilas K (2012) Geology of an Archaean accretionary complex - The structural record of burial and return flow in the Tartoq Group of South West Greenland. *Precambrian Research* 220: 107-122.
50. Szilas K, Næraa T, Scherstén A, Stendal H, Frei R, **van Hinsberg VJ**, Kokfelt TF, Rosing MT (2012) Origin of Mesoarchaeon arc-related rocks with boninite/komatiite affinities from southern West Greenland. *Lithos* 144-145: 24-39.
51. Szilas K, Scherstén A, Hoffmann JE, **van Hinsberg VJ**, Windley BF, Næraa T, Kokfelt TF, Keulen N, Frei R, Rosing MT, Münker C. (2012) Complex calc-alkaline volcanism recorded in Mesoarchaeon supracrustal belts north of Frederikshåb Isblink, southern West Greenland: Implications for subduction zone processes in the early Earth. *Precambrian Research* 208-211: 90-123.
52. Matthews NE, Pyle DM, Smith VC, Wilson CJN, Huber C, **van Hinsberg V** (2012) Quartz zoning and the pre-eruptive evolution of the ~340-ka Whakamaru magma systems, New Zealand. *Contributions to Mineralogy and Petrology* 163: 87-107.
53. Migdisov AA, Williams-Jones AE, **van Hinsberg VJ**, Salvi S. (2011) An experimental study of the solubility of baddeleyite (ZrO₂) in fluoride-bearing solutions at elevated temperature. *Geochimica et Cosmochimica Acta* 75: 7426-7434
54. **van Hinsberg VJ**, Henry DJ, Dutrow BL (2011) Tourmaline as a forensic mineral providing a record its geological past. *Elements* 7: 325-332
55. Palmer SJ, **van Hinsberg VJ**, McKenzie JM, Yee S. (2011) Characterization of acid river dilution and associated trace element behavior through hydrogeochemical modelling: a case study of the Banyu Pahit River in East Java, Indonesia. *Applied Geochemistry* 26: 1802-1810.
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58. **van Hinsberg VJ** (2011) Preliminary experimental data on trace-element partitioning between tourmaline and silicate melt. *Canadian Mineralogist* 49: 153-163
59. **van Hinsberg VJ**, Schumacher JC (2011) Tourmaline as a petrogenetic indicator mineral in the Haut-Allier metamorphic suite, Massif Central, France. *Canadian Mineralogist* 49: 177-194
60. **van Hinsberg VJ**, Williams-Jones AE, Migdisov, AA (2010) Reading the mineral record of fluid composition from element partitioning. *Geology* 38:847-850
61. **van Hinsberg VJ**, Berlo K, van Bergen MJ, Williams-Jones AE (2010) Extreme alteration by hyper-acidic brines at Kawah Ijen volcano, East Java, Indonesia: I. Textural and mineralogical imprint. *Journal of Volcanology and Geothermal Research* 198:253-263
62. **van Hinsberg VJ**, Berlo K, Sumarti S, van Bergen MJ, Williams-Jones AE. (2010) Extreme alteration by hyperacidic brines at Kawah Ijen volcano, East Java, Indonesia: II. Metasomatic imprint and element fluxes. *Journal of Volcanology and Geothermal Research* 196:169-184
63. **van Hinsberg VJ**, Schumacher JC (2009) The geothermobarometric potential of tourmaline, based on experimental and natural data. *American Mineralogist* 94:761-770
64. **van Hinsberg VJ**, Schumacher JC (2007) Using estimated thermodynamic properties to model accessory phases: the case of tourmaline. *Journal of Metamorphic Geology* 25:769-779
65. **van Hinsberg VJ**, Marschall HR (2007) B-isotope and light element sector zoning in tourmaline; Implications for the forma-

- tion of B-isotopic signature. *Chemical Geology* 238:141-148
66. **van Hinsberg VJ**, Zinngrebe E, de Wijs CJ, Vriend SP (2007) Late-Variscan thermal history in the Massif Central: Evidence for a heat pulse linked to Sb mineralizations in the Haut Allier. *Journal of the Geological Society, London* 164:393-404
 67. **van Hinsberg VJ**, Schumacher JC (2007) Intersector element partitioning in tourmaline; a powerful single crystal thermometer. *Contributions to Mineralogy and Petrology* 153:289-301
 68. **van Hinsberg VJ**, Schumacher JC, Kearns S, Mason PRD, Franz G (2006) Hour-glass sector zoning in metamorphic tourmaline and resultant major and trace element fractionation, *American Mineralogist* 91:717-728
 69. Ding M, de Jong BHWS, Niessen SJB, van der Meer JPM, **van Hinsberg VJ** (2005) Black ferric oxy-hydroxide and its sorption of toxic substances. *Geochimica* 34:42-50
 70. **van Hinsberg VJ**, Vriend SP, Schumacher JC (2005) A new method to calculate end-member thermodynamic properties of minerals from their constituent polyhedra II: Heat capacity, compressibility & thermal expansion. *Journal of Metamorphic Geology* 23:681-694
 71. **van Hinsberg VJ**, Vriend SP, Schumacher JC (2005) A new method to calculate end-member thermodynamic properties of minerals from their constituent polyhedra I: Enthalpy, entropy and molar volume, *Journal of Metamorphic Geology* 23:165-180
 72. **van Hinsberg VJ**, Zinngrebe E, de Wijs CJ, Vriend SP (2003) A new model for Sb deposition in the French Massif Central based upon thermodynamic modeling of the mineralizing fluid, *Journal of Geochemical Exploration* 78:75-79.

Non-refereed contributions - Survey bulletins and maps

73. Poulsen MD, Paulick H, Rosa D, **van Hinsberg VJ**, Petersen J, Thomsen LL (2015) Follow-up on Ujarassiorit mineral hunt finds. *Geological Survey of Denmark and Greenland Bulletin* 33, 53–56.
74. Szilas K, **van Hinsberg VJ**, Kisters AFM, Kokfelt TF, Scherstén A, Windley BF (2011) Remnants of Mesoarchean oceanic crust in the Tartoq Group, South-West Greenland. *Danmarks og Grønlands Geologiske Undersøgelse Bulletin* 23: 57–60
75. Schumacher JC, **van Hinsberg VJ**, Keulen N (2011) Metamorphism in supracrustal and ultramafic rocks in southern West Greenland and South-West Greenland 64 – 61.5°N. *Danmarks og Grønlands Geologiske Undersøgelse Rapport* 2011/6: 30p.
76. **van Hinsberg VJ**, Szilas K, Kisters AFM (2010) The Tartoq Group, SW Greenland: Mineralogy, textures and a preliminary metamorphic to hydrothermal history. *Danmarks og Grønlands Geologiske Undersøgelse Rapport* 2010/120: 43p. (with geological maps)
77. **van Hinsberg VJ**, Palmer S, King J, Williams-Jones AE, Vigouroux N, Mauri G, Williams-Jones G, Susanto A, Nasution A (2009) Kawah Ijen: Visual, geochemical, and geophysical observations during mid-2008. *Bulletin of the Global Volcanism Network* 34:02
78. Vigouroux N, Mauri G, Williams-Jones G, **van Hinsberg V**, Williams-Jones AE, Nasution A (2007) Kawah Ijen: Field visit found degassing and increasing fumarole temperatures. *Bulletin of the Global Volcanism Network* 32:09

Selected presentations (since 2015)

Conference presentations (at national and international meetings)

79. Kendrick J, Duguet M, **van Hinsberg V**, Yakymchuk C (2023) Field observations, petrography, geochemistry, and phase equilibrium modelling: The four pillars of petrological investigations of crustal differentiation. Goldschmidt conference (invited)
80. Barber N, Handini E, Berlo K, Buono G, Pappalardo L, Edmonds E, **van Hinsberg V** (2023) Combined 3D Textural and Mineral Chemistry Insights into the Ijen Caldera Complex, East Java, Indonesia. Goldschmidt conference.
81. **van Hinsberg V**, Berlo K, Saby M, Pinti DL, Gautason B, Sigurðardóttir ÁK (2023) Supersaturated metal contents in hydrothermal fluids of the Northern Volcanic Zone, Iceland: Implication for element transport in the crust. Goldschmidt conference.
82. Nisbet H, Migdisov A, **van Hinsberg V**, Williams-Jones A. (2022) The Solubility and Speciation of Nd in Carbonate-Bearing Hydrothermal Fluids. Goldschmidt conference, Honolulu, Hawaii, <https://doi.org/10.46427/gold2022.8991>.
83. D'Amato D, **van Hinsberg VJ** (2022) Tourmaline: A Tracer of Metamorphism in the Eoarchean. Geological Society of America annual meeting, Denver. DOI:10.1130/abs/2022AM-381657
84. **van Hinsberg V.**, Szilas, K. (2021) BIF or MIF? Using trace elements to identify the nature of iron formations. Goldschmidt conference, Lyon, France, 4-9 July, virtual.

85. Berlo, K., **van Hinsberg, V.**, Pinti, D.L., Ghaleb, B., Lauzeral, R. (2021) Reading the record of magma degassing from gypsum precipitates. Goldschmidt conference, Lyon, France, 4-9 July, virtual.
86. Saby, M. **van Hinsberg, V.**, Pinti, D.L., Berlo, K., Rocher, O., Sigurðardóttir, Á.K., Gautason, B., Brown K. (2021) Trace volatile metals and noble gases in deep sampling at Theistareykir geothermal field, NE Iceland: it is not only about volcanic arcs. Goldschmidt conference, Lyon, France, 4-9 July.
87. Pinti, D.L., Haute-Labourdette, M., Saby, M. Poirier, A., **van Hinsberg, V.**, Berlo, K., Castro, C.M., Gautason, B. Sigurðardóttir, Á. (2021). $^{20}\text{Ne}/^{36}\text{Ar}$ in geothermal fluids of Theistareykir: a possible thermometer of water-rock interactions? Goldschmidt conference, Lyon, France, 4-9 July.
88. **van Hinsberg, V.** Yakymchuk, C., Kirkland, C., Szilas, K. (2021) The corundum conundrum: Constraining the compositions of fluids involved in metasomatic corundum formation. EGU General Assembly, Vienna, Austria, EGU21-10229, virtual.
89. **van Hinsberg VJ**, Yakymchuk C, Kirkland C, Szilas K (2021) The corundum conundrum: Constraining the compositions of fluids involved in metasomatic corundum formation. EGU general assembly, virtual.
90. Haut-labourdette M, Pinti D, Poirier A, Saby M, **van Hinsberg V**, Berlo K, Castro C, Gautason B, Sigurdardóttir Á (2020) $^{87}\text{Sr}/^{86}\text{Sr}$, d^{18}O and noble gases as tracers of water-rock interaction in the Theistareykir geothermal field. Geological Society of America Annual Meeting, virtual.
91. Gnieski R, Henry D, Harris C, Mueller P, **van Hinsberg V**. Archean chromitites from the eastern Beartooth Mountains, MT, USA: Insights into Archean crustal genesis through chromite geochemistry. Geological Society of America Annual Meeting
92. Roozen S, **van Hinsberg VJ**, Dachs E, Benisek A, Grevel K-D, Ryan DH & Bud'ko S. (2020) A Thermodynamic solution model for Li-free tourmaline. Goldschmidt conference, virtual.
93. Crotty C, **van Hinsberg V**. Experimentally determined low temperature fluid-antigorite trace element partitioning data. Goldschmidt conference, virtual.
94. **van Hinsberg VJ**, Vriend S, van Dijk AE (2019) Regional geochemical mapping: An ideal teaching tool to demonstrate the imprint of the subsurface on the surface environment. Goldschmidt conference, Barcelona.
95. **van Hinsberg V**, Crotty C, Roozen S, Szilas K, Kisters A (2019) Pressure–temperature history of the >3 Ga Tartoq greenstone belt in SW Greenland: Evidence for an early style of subduction. Goldschmidt conference, Barcelona.
96. Saby M, Pinti DL, **van Hinsberg V**, Gautason B, Sigurðardóttir AK, Castro C, Hall C, Hélie JF, Rocher O (2019) Fluid origin and dynamic at the newly developed Theistareykir geothermal field, Iceland. Canadian Geothermal Conference, Québec, Canada
97. Saby M, Pinti DL, **van Hinsberg V**, Gautason B, Sigurðardóttir AK, Castro C, Hall C, Hélie JF (2019) Fluid origin and behaviour at the newly developed Theistareykir geothermal field, Iceland. International Union of Geodesy and Geophysics General Assembly, Montréal, Canada.
98. Poulsen MD, Keulen N, **van Hinsberg VJ**, Kolb J, Frei R, Vennemann T, Thomsen TB (2019) The geological setting for pink sapphires in South-East Greenland. Greenland Science Week, Nuuk, Greenland.
99. Nisbet H, Migdisov A, Williams-Jones A, Xu H, **van Hinsberg V** & Roback R (2019) The behavior of Th in REE-bearing hydrothermal fluids. Goldschmidt Conference, Barcelona, Spain.
100. Guo H, **van Hinsberg V** (2019) F, REE, Zr, Hf, Nb, Ta, Sn, Mo and W partitioning between titanite and felsic melt. Goldschmidt Conference, Barcelona, Spain.
101. Cruz M, **van Hinsberg VJ** (2019) Experimental Investigation of Orbicular Tourmaline in Granitic Melts. Goldschmidt Conference, Barcelona, Spain.
102. Crotty C, **van Hinsberg VJ** (2019) Quantitatively Reconstructing the Trace and Metal Composition of Seawater Derived Hydrothermal Fluids from (Ultra)mafic Rocks. Goldschmidt conference, Barcelona, Spain.
103. Codeço MS, Weis P, Trumbull RB, **van Hinsberg VJ**, Glodny J, Wiedenbeck M, Romer RL, Lecumberri-Sanchez P (2019) Tourmaline-muscovite pairs as recorders of ore-forming processes at the Panasqueira W-Sn-Cu deposit (Portugal). Geological Society of America Annual Meeting, Phoenix, Arizona, USA.
104. Berlo K, **van Hinsberg VJ**, Gonzalez J (2019) Major- and trace-element analyses of volcanic brines by cryo-LA-LIBS. Goldschmidt conference, Barcelona, Spain.
105. Berlo K, **van Hinsberg V**, Suparjan, Purwanto H, Gunawan H (2019) Compositional time series of water seepage from the magmatic-hydrothermal system of Kawah Ijen volcano, Indonesia. IUGG meeting, Montreal, Canada.
106. **van Hinsberg** (2018) Reconstructing subduction zone fluid compositions from minerals using an element partitioning approach. Goldschmidt conference, Boston, US

107. Migdisov A, Nisbet H, van Hartesveldt N, Kalintsev A, Xu H, Boukhalfa H, Roback R, **van Hinsberg V**, Williams-Jones A, Gabitov R, Brugger J (2018) Geochemical controls of mobilisation and fractionation of REE, U and Th in ore forming hydrothermal systems. Goldschmidt conference, Boston, US
108. Nisbet H, Migdisov A, Xu H, Williams-Jones A, **van Hinsberg V**, Guo X, Boukhalfa A, Roback R (2018) The solubility and speciation of thorium in chloride-bearing aqueous solutions at elevated temperatures. Goldschmidt conference, Boston, US
109. Yang L, **van Hinsberg V** (2018) Liquid immiscibility in the CaF₂-granite system. Goldschmidt conference, Boston, US
110. Poulsen M, Keulen N, **van Hinsberg V**, Kolb J, Frei R, Wennemann T, Thomsen T (2018) Controls on element exchange in ultramafic-hosted plumasite-type corundum, South-East Greenland. Goldschmidt conference, Boston, US
111. **van Hinsberg VJ**, Schumacher JC, Slack JF, Marschall H (2017) Trace elements in tourmaline. Tourmaline2017 conference, Skalsky Dvur, Czech Republic.
112. Berlo K, **van Hinsberg V**, Suparjan, Purwanto H, Gunawan H, Utami SB, Ghaleb B (2017) Gypsum at Kawah Ijen: a record of degassing in a crater lake. IAVCEI General Assembly, Portland, US.
113. Lowenstern J, **van Hinsberg V**, Berlo K, Wright H, Iacovino K, Liesegang M, Bindeman I (2017) Opal in pumice from the 1817 phreatomagmatic event at Kawah Ijen, Java (Indonesia): its origins and implications. IAVCEI General Assembly, Portland, US.
114. Beard C, **van Hinsberg V**, Stix J, Wilke M (2017) Aegirine-melt element partitioning and implications for the formation of nepheline syenite REE deposits. EGU General Assembly, Vienna, Austria
115. Small J, Zinngrebe E, Melzer S, **van Hinsberg V** (2016) Formation of iron-ore sinter mineralogy and microstructure: Towards a comprehensive conceptual model of the flame front. 7th European coke and ironmaking congress - ECIC 2016
116. Yang L, **van Hinsberg VJ**, Samson I (2016) Trace Element Partitioning between Fluorite and Liquid. Goldschmidt conference, Yokohama, Japan
117. Szilas K, **van Hinsberg V**, McDonald I, Morishita T, Pearson G (2016) Highly Depleted Peridotites within Mesoarchean Orthogneiss at the Seqi Olivine Mine, SW Greenland – Potential Implications for the Formation of Cratonic Keels. Goldschmidt conference, Yokohama, Japan
118. Lowenstern JB, Nicholson-Wright HM, **van Hinsberg VJ**, Berlo K, Iacovino K, Bindeman IN (2016) Opal-replaced “Phenocrysts” in Fresh Pumice from 1817 Phreatomagmatic Deposits from Kawah Ijen, East Java, Indonesia: Implications for Eruptive Timescales? AGU Fall Meeting, San Francisco, V33H-05
119. Beard C, **van Hinsberg V**, Stix J, Wilke M (2016) Aegirine-melt element partitioning in alkaline magmatic systems - EMPG XV, 15th International Conference on Experimental Mineralogy, Petrology and Geochemistry, Zürich
120. **van Hinsberg V**, Berlo K, Migdisov, AA Williams-Jones AE (2015) Thermodynamic modeling of metal transport in H₂O-CO₂ vapours: CO₂-Fluxing Crashes Metal Mobility. AGU-GAC-MAC joint assembly. VGP12B-08.
121. Yang L, **van Hinsberg VJ**, Samson I. (2015) Trace Element Partitioning Between Fluorite and Hydrothermal Fluid. AGU-GAC-MAC joint assembly. MS24A-0287.
122. Barshi N, **van Hinsberg VJ**, Rowe C. (2015) Strain-Enhanced Diffusion in Feldspar: A Strain Speedometer? AGU-GAC-MAC joint assembly. MS24A-0281. Awarded with poster prize.
123. Utami SB, **van Hinsberg VJ**, Ghaleb B. (2015) Elemental Concentrations and ²¹⁰Pb Activity of a Growth-zoned Gypsum Stalactite generate Historical Volcanic Activity Record at Kawah Ijen’s Crater Lake, Indonesia. AGU-GAC-MAC joint assembly. VGP24B-0407. Awarded with poster prize.
124. Fleurent L, Gibert-Brunet E, Barbecot F, Gillon M, **van Hinsberg VJ**. (2015) Kinetic isotope fractionation during rich-CO₂ water degassing: understanding the travertine geochemical record. AGU-GAC-MAC joint assembly. H24D-0246.
125. Wade J, Wood BJ, van Hinsberg VJ (2014) The Implications of the Moon-Forming Impact for Terrestrial Oxidation State and Surface Water Stability. AGU Fall meeting.
126. **van Hinsberg VJ**, Utami SB, Vigouroux N, Palmer S, Berlo K, McKenzie J, Williams-Jones G, Williams-Jones AE (2014) Total emitted element flux of the passively degassing Kawah Ijen volcano, Indonesia, and implications for environmental impact and hazard monitoring. Cities on Volcanoes 8, Yogyakarta.
127. Utami SB, **van Hinsberg VJ**, Ghaleb B (2014) Growth-zoned gypsum in hyperacidic crater lake seepage brine provides a historic record of magmatic activity at Kawah Ijen volcano, East Java. Cities on Volcanoes 8, Yogyakarta.
128. **van Hinsberg VJ** (2014) Element transfer in subduction zones constrained using tourmaline: How to recognize Archaean subduction? GAC-MAC annual meeting, Fredericton.

129. **van Hinsberg VJ**, Wood BJ, Williams-Jones AE, Migdisov A (2013) The impact of element speciation on apparent partition coefficients. Goldschmidt conference, Florence.
130. **van Hinsberg VJ**, Wood BJ (2012) Beyond Henry's Law: Interpreting element signatures in oxide minerals at high concentrations. Goldschmidt conference, Montreal.
131. Berlo K, **van Hinsberg VJ**, Vigouroux N, Gagnon JE, Williams-Jones AE (2012) Metals in melt inclusions and volcanic gases from Kawah Ijen volcano, Indonesia. EGU General Assembly Vienna.
132. **van Hinsberg VJ**, Szilas K, Wood BJ (2012) The composition of the Early Earth oceans: Constraints from element partitioning. Geobiology symposium, Montreal.
133. **van Hinsberg VJ**, Szilas K, Wood BJ (2011) Towards a quantitative record of Archaean ocean water chemistry: An element partitioning approach. Goldschmidt conference, Prague.
134. Keulen N, Schumacher JC, **van Hinsberg VJ**, Szilas K, Windley BF, Kokfelt TF, Schlatter DM, Schersten A (2011) The Bjørnesund anorthosite-greenstone belt – a link between the Fiskensæset complex and the Ravn Storø metavolcanic belt, southern West Greenland. EGU General Assembly Vienna.
135. Keulen N, Kokfelt TF, Schersten A, Christoffersen M, Berger A, Halskov J, Heijboer T, Hindø AT, Hornum M, Gensen MSJ, Kisters AFM, Klausen MB, Kolb J, Larsen U, Næraa T, Pedersen M, Pjetursson B, Rasmussen TM, Riisager P, Schjøth F, Schlatter DM, Schumacher JC, Steinfeld A, Szilas K, **van Hinsberg VJ**, Platen-Hallermund F, Weng WL, Wiese MB, Windley BF (2011) A 1:100 000 web-accessible geological map of southern West and South-West Greenland (61°30' – 64°N). EGU General Assembly Vienna.
136. **van Hinsberg VJ**, Kisters AFM, Szilas K (2011) Constraining the geotectonic setting for the Archaean Tartoq Group (SW Greenland) from its metamorphic and structural history. EGU General Assembly Vienna.
137. Schumacher JC, Keulen N, Stamper C, Sherwood G, **van Hinsberg VJ** (2011) Metamorphism in southern West Greenland and South-West Greenland. EGU General Assembly Vienna.
138. Szilas K, Schersten A, Hoffmann EJ, Kokfelt TF, **van Hinsberg VJ**, Windley BF, Munker C (2011) Linking the Ravns Storø and Bjørnesund supracrustal belts (SW Greenland) using Lu-Hf and Sm-Nd isotopic data and whole-rock geochemistry. EGU General Assembly Vienna.
139. Szilas K, **van Hinsberg VJ**, Kisters AFM, Kokfelt TF, Schersten A, Windley BF (2011) Remnants of Mesoarchaean oceanic crust in the Tartoq Group, North Atlantic Craton, SW Greenland. EGU General Assembly Vienna.
140. **van Hinsberg VJ**, Wood BJ, Jahn S (2011) Predicting the systematics in partitioning between fluids and minerals: An atomistic simulation approach. Psi-k workshop, Oxford.
141. **van Hinsberg VJ**, Franz G, Williams-Jones AE, Wood BJ (2010) Trace element partitioning between minerals and aqueous fluid as a tool to unravel element release from the subducting slab. AGU Fall meeting San Francisco.
142. **van Hinsberg VJ**, Williams-Jones AE (2010) Lattice-strain modeling of fluid compositions in subduction zones and the mid-ocean ridges. Goldschmidt conference, Knoxville.

Invited lectures and keynotes

143. **van Hinsberg V** (2023) Deciphering the compositions of fluids in the Earth: Rubies, volcanoes and the origins of life. Invited lecture, Université d'Orléans, France
144. **van Hinsberg V**, Saby M, Pinti DL, Berlo K, Gautason B, Sigurðardóttir, Á.K. (2022) Sources and transport of metals in magmatic-hydrothermal systems. Invited Hutchinson lecture, GACMAC meeting, Halifax.

Hutchinson Medalist Lecture tour;

- van Hinsberg V**. (2020, 2021) Deciphering the compositions of fluids in the Earth: Rubies, volcanoes and the origins of life.
145. Alberta, hosted by Mount Royal University, Calgary
146. Eastern Canada, hosted by Dalhousie University
147. Quebec, hosted by Laval University, Quebec City
148. Eastern Ontario, hosted by the Geological Survey of Canada
- van Hinsberg V**. (2020, 2021) Sending probes into the deep Earth to understand subduction.
149. University of British Columbia, Okanagan
150. Alberta, hosted by University of Calgary

151. Eastern Canada, hosted by Saint Mary's University
152. Simon Fraser University, Vancouver
153. Eastern Canada, hosted by Memorial University, Saint-John, Newfoundland
154. Central Canada, hosted by the University of Manitoba, Winnipeg
155. Northern BC and the Yukon, hosted by the Yukon Survey
156. Western Ontario, hosted by Lakehead University
- 157. van Hinsberg V**, Yakymchuk C, Kirkland C, Szilas K (2021) The corundum conundrum: Constraining the conditions of ruby formation in high-grade metamorphic melanges of SW Greenland. Invited lecture, Geological Association of Canada Celebration week.
- 158. van Hinsberg VJ** (2021) Tourmaline elemental partitioning with melts, fluids and minerals: how to interpret tourmaline (trace element) composition. NATURA 111 (1): 113-114. Invited keynote, TUR2021 3rd International Conference on Tourmaline
- 159. van Hinsberg VJ** (2019) Minerals as probes of fluid composition: Exploring the physico-chemical controls on element uptake by minerals with applications to understanding ore formation, plate tectonics and the early evolution of life. Mineralogical Association of Canada Award presentation. GAC-MAC conference, Quebec City, Canada.
- 160. van Hinsberg VJ**, Szilas K, Kisters A, Crotty C, Roozen S (2019) The Tartoq greenstone belt of SW Greenland: A geochemical window into early plate tectonics and the composition of the Archaean ocean. Institute for Geosciences and Natural Resource Management, University of Copenhagen, Denmark.
- 161. van Hinsberg VJ** (2019) How do minerals get their composition and how do we use this to monitor volcanoes? Petrologisk Klub seminar, University of Copenhagen, Denmark.
- 162. van Hinsberg V**, Crotty C, Roozen S, Szilas K, Kisters A (2019) Pressure-temperature history of the >3 Ga Tartoq greenstone belt in SW Greenland: Evidence for an early style of subduction. Geological Survey of Denmark and Greenland, Copenhagen, Denmark.
- 163. van Hinsberg VJ** (2018) Using microstructures and phase compositions to understand (geo)-materials: Thermodynamic modelling, Lattice-strain theory and chemometrics. Tata Steel Research colloquium, IJmuiden, the Netherlands.
- 164. van Hinsberg VJ** (2017) Lattice-Strain Theory: Exploring the physical and chemical controls on element partitioning among minerals, fluids and melts, and the use of Lattice-Strain Theory in extrapolating to extreme conditions. Frontiers in Geosciences Colloquium, Los Alamos National Laboratory, US.
- 165. van Hinsberg VJ**, Beard C, Yang L (2017) The impact of fluorine on phase relations and element partitioning in alkaline melts. HiTech AlkCarb Expert Council meeting, Edinburgh, UK.
- 166. van Hinsberg VJ** (July 2015) Volcano monitoring back in time: The Kawah Ijen crater lake in East-Java, Indonesia. Cascades Volcano Observatory, Vancouver, USA.
- 167. van Hinsberg VJ** (May 2014) There and back again: New insights into subduction zones from mineral probes. Goethe University Centennial meeting, Frankfurt, Germany.
- 168. van Hinsberg VJ**, Wood BJ, Franz G (Oct 2013) The wondrous world of element partitioning: Towards a new model for subduction zones. Louisiana State University, Baton Rouge, USA.
- 169. van Hinsberg VJ** (April 2013) Minerals as indicators of conditions in and on the Earth: Lattice-strain theory applied to mineral-fluid systems. Environment Centre, Lancaster University, UK.
- 170. van Hinsberg VJ** (Jan 2013) There and back again: Minerals as indicators of conditions in and on the Earth. University of Oxford, UK.
- 171. van Hinsberg VJ** (Oct 2012). Reconstructing the composition of fluids in and on the Earth: Lattice-strain theory applied to mineral-fluid systems. University of Edinburgh, UK.
- 172. van Hinsberg VJ**, Wood BJ, Franz G, Williams-Jones AE (April 2011) Reconstructing the compositions of fluids in the Earth: Lattice-strain theory applied to mineral-fluid systems. Centre de Recherches Pétrographiques et Géochimiques (CRPG) Nancy, France.