

Curriculum vitae with publication lists

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BIOGRAPHIC SUMMARY

With specialisation in geochemistry, mineralogy and petrology, I am studying Earth and planetary formation, evolution and dynamics. Educated at the Norwegian Institute of Technology and University of Western Ontario, my research background includes field-based and high-pressure experimental investigations of petrological, mineralogical and geochemical nature. In our research group for Deep Earth materials and dynamics at the Centre for Earth Evolution and Dynamics we used first principles atomistic simulations to interrogate Earth and planetary materials. In our new Centre for Planetary Habitability, my focus might be shifted slightly towards planetary formation and evolution.

UNIVERSITY EDUCATION

1981-85: **Doctor of Philosophy** (*Geology, Experimental Petrology*), University of Western Ontario.

1974-78: **Sivilingeniør** (*Geology*), Norwegian Institute of Technology, University of Trondheim.

RESEARCH AND TEACHING EXPERIENCE

- 2023– : **Professor** (prof. emeritus from 2024), Natural History Museum, University of Oslo. Also at the Centre for Planetary Habitability, PHAB (RCN-funded Centre of Excellence, 2023-2033).
- 2013–23: **Professor**, Natural History Museum, University of Oslo. Also at the Centre for Earth Evolution and Dynamics, CEED (RCN-funded Centre of Excellence, 2013-2023).
- 2013–23: **Group leader**, Deep Earth Materials and Dynamics, CEED, University of Oslo
- 2011: **Research Fellow**, Centre for Advanced Studies, Norwegian Academy of Science and Letters, Oslo
- 2010-11: **Professor**, Norwegian University of Science and Technology, Trondheim
- 2000–04: **Nordic Council Research Fellow**, Nordic Volcanological Institute, University of Iceland
- 1994– : **Associate professor and professor** (prof. emeritus from 2024), Mineralogical-Geological Museum and Natural History Museum, University of Oslo
- 1994-2000: Mineralogical-Geological Museum, Faculty of Mathematics & Natural Sciences, Univ. Oslo
- 1992–94: **Research Scientist**, Mineral Resources Group, Geological Survey of Norway.
- 1990–92: **Research Associate / Research Facility Manager**, Department of Geology, University of Alberta.
- 1988–90: **Visiting Assistant Professor**, Department of Geology, University of Alberta, (Acting director of C.M. Scarfe Laboratory of Experimental Petrology, 1988-1989).
- 1986–88: **Research Scientist**, Industrial Mineral Section, Geological Survey of Norway.
- 1985–86: **Postdoctoral Fellow**, Nordic Volcanological Institute, University of Iceland.
- 1981–85: **Royal Norwegian Council for Scientific and Industrial Research Predoctoral Fellow** and **University of Western Ontario Teaching Assistant**
- 1979–81: **Research and Teaching Assistant** (*economic geology*), Norwegian Institute of Technology.

RECENT PUBLICATIONS

REFEREED ARTICLES (FROM 2000)

Hernandez J-A, Guren MG, Mohn CE, Baron MA, Trønnes RG, 2022: Ab initio atomistic simulations of Ca-perovskite melting. *Geophys. Rev. Lett.*, 49, e2021GL097262.

Shephard GE, Houser C, Hernlund JW, Valencia-Cardona JJ, Trønnes RG, Wentzcovitch RM, 2021: Seismological expression of the iron spin crossover in ferropericlase in the Earth's lower mantle. *Nat. Comm.* 12, 5905.

Karlsen KS, Conrad CP, Domeier M, Trønnes RG, 2021: Spatiotemporal variations in surface heat loss imply a heterogeneous mantle cooling history. *Geophys. Res. Lett.* 48, e2020GL092119.

- Heyn BH, Conrad CP, Trønnes RG, 2020: Core-mantle boundary topography and its relation to the viscosity structure of the lowermost mantle. *Earth Planet. Sci. Lett.* 543, 116358.
- Heyn BH, Conrad CP, Trønnes RG, 2020: How thermochemical piles periodically generate plumes at their edges. *J. Geophys. Res.* 125, 2019JB018726.
- Fritz J, Greshake A, Klementova M, Wirth R, Palatinus L, Trønnes RG, Fernandes VA, Böttger U, Ferriere L, 2020: Donwilhelmsite, $[CaAl_4Si_2O_{11}]$, a new lunar high-pressure Ca-Al-silicate with relevance for subducted terrestrial sediments. *Am. Mineral.* 105, 1704-1711.
- Das PK, Mohn CE, Brodholt JP, Trønnes RG, 2020: High pressure silica phase transitions: Implications for deep mantle dynamics and silica crystallization in the protocore. *Am. Mineral.* 105, 1014-1020.
- Trønnes RG, Baron MA, Eigenmann KR, Guren MG, Heyn BH, Løken A, Mohn CE, 2019: Core formation, mantle differentiation and core-mantle interaction within Earth and the terrestrial planets. *Tectonophys.* 760, 165-198 (Torsvik Spec. Issue).
- Heyn BH, Conrad CP, Trønnes RG, 2018: Stabilizing effect of compositional viscosity contrasts on thermochemical piles. *Geophys. Res. Lett.* 45, 7523–7532.
- Baron MA, Lord OT, Myhill R, Thompson AR, Wang W, Trønnes RG, Walter MJ, 2017: Experimental constraints on melting temperatures in the MgO-SiO₂ system at lower mantle pressures. *Earth Planet. Sci. Lett.* 472, 186-196.
- Tan P, Breivik AJ, Trønnes RG, Mjelde R, Azuma, R, Eide S 2017: Crustal structure and origin of the Eggvin Bank west of Jan Mayen, NE Atlantic. *J. Geophys. Res.* 122, 43-62.
- Shepard GE, Trønnes RG, Spakman W, Panet I, Gaina C 2016: Evidence for slab material under Greenland and links to Cretaceous High Arctic magmatism. *Geophys. Res. Lett.* 43, 3717-3726.
- Torsvik TH, Steinberger B, Ashwal LD, Doubrovine PV, Trønnes RG 2016: Earth Evolution and Dynamics – A tribute to Kevin Burke. *Can. J. Earth Sci.* 53, 1073-1087.
- Mohn CE, Trønnes RG 2016: Iron spin state and site distribution in FeAlO₃-bearing bridgmanite. *Earth Planet. Sci. Lett.* 440, 178-186.
- Torsvik TH, Amundsen HEF, Trønnes RG, Doubrovine PV, Gaina C, Kusznir NJ, Steinberger B, Corfu F, Ashwal LD, Griffin WL, Werner SC, Jamtveit B 2015: Continental crust beneath southeast Iceland. *Proc. Nat. Acad. Sci.* 10.1073/pnas.1423099112, E1818–E1827.
- Andrault D, Trønnes RG, Konopkova Z, Morgenroth W, Liermann HP, Morard G, Mezouar M, 2014: Phase diagram and P-V-T equation of state of Al-bearing seifertite at lowermost mantle conditions. *Am. Mineral.* 99, 2035-2042.
- Torsvik TH, Van der Voo R, Doubrovine PV, Burke K, Steinberger B, Ashwal LD, Trønnes RG, Webb SJ, Bull AL 2014: Deep mantle structure as a reference frame for movements in and on the Earth. *Proc. Nat. Acad. Sci.* 111, 8735-8740.
- Trønnes, R.G., 2010, Structure, mineralogy and dynamics of the lowermost mantle. 99, 243-261. (Spec. Issue, Exp. Mineral. Petrol. Geochem. XII)
- Debaille, V., Trønnes, R.G, Brandon, A.D., Waught, T.E., Graham, D., Lee, C.-T.A., 2009: Primitive off-rift basalts from Iceland and Jan Mayen: Os-isotopic evidence for a mantle source containing enriched subcontinental lithosphere. *Geochim. Cosmochim. Acta* 73, 3423-3449.
- Boffa-Ballaran, T., Trønnes, R.G., Frost, D.J. 2007: Equations of state of CaIrO₃ perovskite and post-perovskite phases. *Am. Mineral.* 92, 1760-1763.
- Stølen, S., Trønnes, R.G., 2007: The perovskite to post-perovskite transition in CaIrO₃: Clapeyron slope and changes in bulk and shear moduli by density functional theory. *Phys. Earth Planet. Int.* 164, 50-62.
- Selbekk, R.S., Trønnes, R.G., 2007: The 1362 AD plinian Öræfajökull eruption, Iceland: petrology and geochemistry of large-volume homogeneous rhyolite. *J. Volcanol. Geotherm.* 160, 42-58.
- Walter M.J., Trønnes R.G., Armstrong, L.S., Lord, O.T., Caldwell, W.A., Clarke, S.M., 2006: Subsolidus phase relations and perovskite compressibility in the system MgO-AlO_{1.5}-SiO₂ with implications for the Earth's lower mantle. *Earth Planet. Sci. Lett.* 248, 77-89.
- Jackson, M.G., Oskarsson, N., Trønnes, R.G., McManus, J.F., Oppo, D.W., Grønvold, K., Hart, S., Sachs, J., 2005: Holocene Loess deposition in Iceland: Evidence for millennial-scale atmosphere-ocean coupling in the North Atlantic. *Geology* 33, 509-512.
- Walter M.J., Trønnes R.G., 2004: Early Earth differentiation. *Earth Planet. Sci. Lett.* 225, 253-269 (Frontiers article).

- Walter, M.J., Nakamura E., Trønnes R.G., Frost DJ, 2004: Experimental constraints on crystallization differentiation in a deep magma ocean. *Geochim. Cosmochim. Acta* 68, 4267-4284
- Frost D.J., Poe B.T., Trønnes R.G., Liebske C., Duba A., Rubie D.C. 2004: A new large-volume 6-8 multianvil system. *Phys. Earth Planet. Int.* 143/144, 507-514
- Frost D.J., Liebske C., Langenhorst F., McCammon C.A., Trønnes R.G., Rubie D.C., 2004: Experimental evidence for the existence of Fe-rich metal in the Earth's lower mantle. *Nature* 428, 409-412, with related News and Views article (*Nature* 428, 379).
- Trønnes, R.G. & Frost, D.J. 2002: Peridotite melting and mineral-melt partitioning of major and minor elements at 22–24.5 GPa. *Earth Planet. Sci. Lett.* 53, 233-245.
- Trønnes, R.G. 2002: Stability range and decomposition of potassic richterite and phlogopite end members at 5–15 GPa. *Mineralogy and Petrology* 74, 129-148 (Edgar Memorial Issue).
- Trønnes, R.G. 2000: Melting relations and mineral-melt partitioning in an oxidized bulk Earth model composition at 15–26 GPa. *Lithos* 53, 233-245 (Spec. Issue on Element Partitioning in Geochemistry and Petrology).

ABSTRACTS (FROM 2016)

- Trønnes RG, Mohn CE 2022, Composition, evolution and structure of the deep mantle. Abstr. ESRF, GeoBridge Webinar, March 23, www.esrf.fr/home/events/webinars/content/area-events/past-online-seminars/composition-evolution-and-structure-of-the-deep-mantle-reidar-g-trønnes-university-of-oslo.htm
- Trønnes RG, Mohn CE, Grømer B, Hernandez JA, Guren MG, Baron MA, 2022: Dense, residual dave Maoite in the lowermost mantle: implications for ULVZs and LLSVPs. Abstr. Conf. on Earth's History, Dynamics and Planetary Habitability, Sundvollen, Norway, Nov. 13-19. www.nhm.uio.no/english/about/organization/research-collections/people/rtronnes/4/other/Sundvollen-abstr-RGT.pdf
- Shephard GE, Houser C, Hernlund J, Trønnes R., Valencia-Cardona, JJ, Wentzcovitch R, 2021: Detecting the spin crossover in ferropericlase. *Am. Geophys. Union Fall Mtg.* DI14A-01.
- Trønnes RG, Mohn CE, Hernandez JA, Guren MG, Grømer B, Baron MA, 2021: High-density residual Ca-perovskite in the lowermost mantle. Meeting, Royal Astron. Soc. and UK Studies of Earth's Deep Interior (RAS, UK-SEDI), Nov. 12.
- Trønnes RG, 2021: Chemical exchange between the protocore and the (basal) magma ocean. Goldschmidt Conf. 2cO3-1045.
- Trønnes RG, 2020: A magma ocean origin of Earth's degree-2 mantle convection. Abstr. SEDI-symposium, Taipei 2020 (Study of the Earth's Deep Interior), Oct.1-31, <https://sedi2020.earth.sinica.edu.tw/>
- Trønnes RG, 2020: Deep-rooted plumes sample Hadean refractory domains. Abstr. Zoom-based workshop on "Feedbacks Between Mantle Composition, Structure, and Evolution." Sept. 15-16. <https://sites.google.com/view/lowermantleworkshop/home>
- Heyn B, Conrad C, Trønnes R, 2020: How thermochemical piles initiate plumes at their edges. European Geosci. Union, Gen. Assembly, Geophys. Res. Abstr. EGU2020-5577.
- Shephard GE, Hernlund J, Houser C, Trønnes RG, 2020: Crameri F: Ambient lower mantle structure and composition inferred from seismic tomography, convection models and geochemistry. European Geosci. Union, Gen. Assembly, Geophys. Res. Abstr. EGU2020-11806.
- Trønnes RG: Core and lower mantle evolution from chemical exchange between the protocore and the basal magma ocean. AGU Fall Meeting Abstr. DI21A-0009.
- Hernlund J, Shephard G, Houser C, Wentzcovitch R, Trønnes RG, 2019: Detection of an Iron Spin Transition in Ferro-periclase in the Lower Mantle. AGU Fall Meeting Abstr. U42B-04.
- Caracas R, Solomatova, NV, Trønnes, RG, 2019: Buoyancy of dry and volatile-bearing silicate melts in the Earth's mantle. AGU Fall Meeting Abstr. DI33C-0052.
- Hernlund J, Shephard G, Houser C, Wentzcovitch R, Trønnes RG, 2019: Now you see it, now you don't: Seismic signals of an iron spin transition in the lower mantle. Goldschmidt Conf. Abstr. 02i-Mo-0900.
- Trønnes RG, Mohn CE, Grømer B, 2019: Basal magma ocean crystallisation combined with core exchange. Goldschmidt Conf. Abstr. 02i-Mo-0845.
- Das PK, Mohn CE, Trønnes RG, Brodholt JP, 2019: Silica phase transitions at lowermost mantle and core conditions. Goldschmidt Conf. Abstr. 02e-We-1730.
- Mohn CE, Trønnes RG, 2019: Bridgmanite to post-perovskite partitioning of Fe-Al-components. Goldschmidt Conf. Abstr. 02i-Mo-1600

- Heyn B, Conrad C, Trønnes R, 2019: What core-mantle boundary topography can tell us about plume locations and the viscosity and density structure of thermochemical piles. European Geosci. Union, Gen. Assembly, Geophys. Res. Abstr. EGU2019-9714.
- Heyn B, Conrad C, Trønnes R, 2019: Core-mantle boundary topography and its relation to lowermost mantle viscosity structure. Ada Lovelace Workshop on Modelling Mantle and Lithosphere Dynamics, Abstr. 71.
- Heyn B, Conrad C, Trønnes R, 2019: Periodic plume generation at the edges of thermochemical piles. Ada Lovelace Workshop on Modelling Mantle and Lithosphere Dynamics. Abstr. 72.
- Domeier M, Torsvik TH, Conrad CP, Steinberger B, Doubrovine PV, Trønnes RG, Werner SC, Shephard GE, Robert B, 2019: On the stability of Earth's degree 2 mantle structure. European Geosci. Union, Gen. Assembly, Geophys. Res. Abstr. EGU2019-10320.
- Shephard GE, Houser C, Hernlund J, Wentzcovitch R, Trønnes R, 2019. Seismic detection of iron spin pairing in ferropericlase and the structure of the lower mantle. Ada Lovelace Workshop on Modelling Mantle and Lithosphere Dynamics. Abstr. 19.
- Shephard GE, Houser C, Hernlund J, Wentzcovitch R, Trønnes R, 2019: Detection of the lower mantle iron spin transition in ferropericlase through vote maps of seismic tomography. European Geosci. Union, Gen. Assembly, Geophys. Res. Abstr. EGU2019-6998.
- Brydon RJ, McLeod C, Shaulis B, Haley MY, Trønnes RG 2018: Accessory phases as tracers of magmatic processes in plutonic environments: insights from apatite. Geol. Soc. Am. Ann. Mtg., Abstr. 233-7
- Trønnes RG, Mohn CE, Eigenmann KR, 2018: He and Ne diffusion in bridgmanite and lower mantle structure. Goldschmidt Conf. Abstr. 02d, 0830, We.
- Mohn CE, Trønnes RG, 2018: Partitioning of the FeSiO_3 , FeAlO_3 and Al_2O_3 components between bridgmanite and post-bridgmanite. Goldschmidt Conf. Abstr. 02d, 1530, Tu.
- McLeod C, Shaulis B, Brydon RJ, Haley M, Angi-O'Brien, E, Trønnes RG, 2018: Assembly of Magmas in Earth's Upper Crust: Insights at the micro and macro scale from granitic batholiths. Goldschmidt Conf. Abstr. 041-110.
- Heyn BH, Conrad CP, Trønnes, RG, 2018: Stabilization of thermochemical piles by compositional viscosity contrasts. Research School for Dynamics and Evolution of Earth and Planets (DEEP), General Assembly, Hurtigruta, Bergen-Trondheim, March 7-9.
- Heyn B, Conrad, CP, Trønnes RG, 2018: Stabilization of thermochemical piles by compositional viscosity contrasts. EGU Gen. Assembly, EGU2018-12950.
- Trønnes RG, Mohn CE, Eigenmann KR, 2017: Origin and structure of Hadean He and Ne isotopic reservoirs in the Earth. Conceiving Earth Evolution and Dynamics, San Cristobal de La Laguna, Tenerife, Prog. Abstr. 43-44.
- Guren MG, Mohn CE, Trønnes RG, Baron MA, 2017: Melting curves for periclase, bridgmanite and Ca-perovskite by ab initio molecular dynamics. Conceiving Earth Evolution and Dynamics, San Cristobal de La Laguna, Tenerife, Prog. Abstr. 36.
- Baron MA, Lord OT, Myhill R, Thielmann M, Thompson AR, Wang W, Trønnes RG, Walter MJ, 2017: Eutectic melting in the $\text{MgO}-\text{SiO}_2$ system and its implication to Earth's lower mantle evolution. High-Pressure Mineral Physics Seminar (HPMPs-9) Saint Malo, France, Progr. Abstr. 85-86.
- Heyn B, Conrad CP, Trønnes, RG, 2017. Stabilizing effect of a chemical viscosity contrast on LLSVP structures Abstr., Gordon Res. Conf. on Chemical and dynamical evolution of Earth's deep interior, from formation to today. Mount Holyoke College, South Hadley, MA.
- Baron MA, Walter MJ, Siebert J, Badro J, Drewitt JWE, Lord OT, Louvel M, Lyubomirski M, Trønnes RG, 2017: Magma ocean thermometry, using metal-silicate partitioning of germanium. ACCRETE Workshop on Accretion and Early Differentiation of the Earth and Terrestrial Planets. Nice May 29 - June 3.
- Trønnes RG, Eigenmann KR, Mohn CE, 2017: The origin of deep Earth reservoirs with "primordial" He and Ne isotope ratios. Fifth ELSI International Symposium. Tokyo Inst. Tech., Okayama. Abstr. S4-P17, 41.
- Mohn CE, Trønnes RG, 2016: Element partitioning, iron spin state and local structural order in bridgmanite and post-bridgmanite: An ab initio Monte Carlo study. Trans. Am. Geophys. Union, Fall Meeting, MR13A-2417.
- Baron MA, Lord OT, Drewitt JWE, Badro J, Walter MJ & Trønnes RG, 2016: Melting of peridotite at lower mantle conditions: LH-DAD experiments with metal encapsulated samples. Goldschmidt Conf. Abstr., 163

OTHER ARTICLES, TECHNICAL REPORTS AND ANNUAL REPORT CONTRIBUTIONS

- Trønnes RG et al., 2014: Introduction to the Deep Earth materials structure and dynamics activities, with two articles on Melting phase relations of simplified peridotite model compositions and Phase relations, thermoelasticity and thermal conductivity of perovskite and post-perovskite in the system $\text{MgSiO}_3\text{-FeSiO}_3\text{-FeAlO}_3$. CED Ann. Rep. 2013, 10-13.
- Trønnes RG et al., 2015: Introduction to the Deep Earth materials structure and dynamics activities, with an article on Lower mantle melting, as well as project summaries of Phase relations and mineral physics of bridgmanite and post-bridgmanite, Diffusion of ${}^3\text{He}$, ${}^4\text{He}$ and Ne in bridgmanite, Global geochemistry of mid-ocean ridge basalts and Geochemistry of NE Atlantic and Arctic basalts. CED Ann. Rep. 2014, 12-15.
- Trønnes RG et al., 2016: Introduction to the Deep Earth materials structure and dynamics activities, with articles on Melting relations, Subsolidus mineralogy and mineral physics and NE Atlantic basalt geochemistry and the asymmetrically zoned Iceland plume. CED Ann. Rep. 2015, 18-21.
- Trønnes RG et al., 2017: Summary of the Deep Earth materials structure and dynamics objectives and activities. CED Ann. Rep. 2016, 12-13. Includes separate articles:
- Torsvik, Amundsen, Trønnes Doubravine, Gaina, Kusznir, Steinberger, Corfu, Ashwal, Griffin, Werner & Jamtveit: Continental crust beneath southeast Iceland, 40-41.
 - Torsvik, Van der Voo, Doubravine, Burke, Steinberger, Ashwal, Trønnes, Webb, & Bull: Deep mantle structure as a reference frame for movements in and on the Earth, 47-48.
 - Shephard, Trønnes, Spakman, Panet & Gaina: Evidence for slab material under Greenland and links to Cretaceous High Arctic magmatism, 50-51.
 - Mohn & Trønnes: Iron spin state and site distribution in FeAlO_3 -bearing bridgmanite, 52-53.
- Trønnes RG et al., 2018: Introduction to the Deep Earth materials structure and dynamics activities, with articles on Melting relation in the system CaO-MgO-SiO_2 (CMS), Diffusion rate of He and Ne in bridgmanite and ferropericlase, Partitioning of the FeSiO_3 , FeAlO_3 and Al_2O_3 components between bridgmanite and post-bridgmanite and Partitioning of Al and mineral physics of β -stishovite and seifertite in the system $\text{SiO}_2\text{-Al}_2\text{O}_3$. CED Ann. Rep. 2017, 12-17.
- Trønnes RG et al., 2019: Introduction to the Deep Earth materials structure and dynamics activities, with closely related articles on Terrestrial planet formation and core composition, Core-BMO chemical exchange in Earth and Venus and Late-stage crystallisation and the structure of the D"-zone, as well as additional project summaries. CED Ann. Rep. 2018, 12-18.
- Trønnes RG et al., 2020: Introduction to the Deep Earth materials structure and dynamics activities, with articles on Possible origin of Earth's degree-2 pattern in the early magma ocean, Crystallisation of the basal magma ocean (BMO) combined with core exchange, Melting curves for one-component endmember systems, FeO , MgO , SiO_2 and CaSiO_3 , as well as short summaries of Silica phase transitions in the lowermost mantle and the core, Partitioning of the FeSiO_3 , FeAlO_3 and Al_2O_3 components between bridgmanite and post-bridgmanite and Seismic detection of iron spin pairing in ferropericlase and the structure and composition of the lower mantle and Stability of LLSVP thermochemical piles and mechanisms of plume generation at their margins. CED Ann. Rep. 2019, 12-19.
- Trønnes RG et al., 2021: Introduction to the Deep Earth materials structure and dynamics activities, with articles on Chemical exchange between the core and molten mantle, Early refractory domains (ERD) of bridgmanitic composition and The importance of Ca-perovskite in the LLSVPs and ULVZs, Silicate liquids and glasses under dynamic and static compression to Mbar pressures and Magma Oceans in Terrestrial Planets. CED Ann. Rep. 2020, 12-19.
- Trønnes RG et al., 2022: Introduction to the Deep Earth materials structure and dynamics activities, with articles on Seismic detection of electronic spin change in the lower mantle, Counterintuitive diffusion rates of He and Ne in periclase and Composition, structure and evolution of the lower mantle. CED Ann. Rep. 2021, 16-31.
- Trønnes RG et al. 2023: Introduction to the Deep Earth materials structure and dynamics activities, CED Ann. Rep. 2022, with an article on Dense residual dave Maoite in the lowermost mantle: implications for ULVZs and LLSVPs, CED Ann. Rep. 2022, 16-34.
- Savchuk O, Trønnes RG, Frost DJ 2013: Liquidus phase relations in the system MgO-SiO_2 . Annual Report 2012, Bayerisches Geoinstitut, 4.2.d (Geochemistry), 57-59
- Savchuk O, Frost DJ, Trønnes RG 2012: The effect of chemistry on the melting of pyroxenite rocks in simplified systems at 6 GPa. Annual Report 2011, Bayerisches Geoinstitut, 3.2.f (Geochemistry and Cosmochemistry), 60-61.

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- Savchuck O, Frost DJ, Trønnes RG 2012: The effect of chemistry on the melting of pyroxenite rocks in simplified systems at 6 GPa. Annual Report 2011, Bayerisches Geoinstitut, 3.2.f (Geochemistry and Cosmochemistry), 60-61.
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- Frost, D.J., Trønnes, R.G. 2000: Melting relations and trace element partitioning in peridotite at 20-26 GPa - effects of variable H_2O and O_2 fugacities. Ann. Rep. 1999, Bayerisches Forschungsinstitut f. Experimentelle Geochemie u. Geophysik, 3.3.g. (Mineralogy, Crystal Chemistry and Phase Transitions).
- Frost, D.J., McCammon, C.A. and Trønnes, R.G. 2001: Melting phase relations of mantle peridotite between 21 and 24 GPa. Ann. Rep. 2000, Bayerisches Forschungsinstitut f. Experimentelle Geochemie u. Geophysik, 3.3k. (Mineralogy, Crystal Chemistry and Phase Transitions).
- Trønnes, R.G. 1994a: Marmorforekomster i Midt-Norge: Geologi, isotopgeokjemi og industrimineralpotensiale. *Norges geol. unders. Rapport* 94.042.
- Trønnes, R.G. 1994b: Kjemisk og mineralogisk variasjon langs marmorsonen fra Huddingsvatnet til Leipikdalen, Grongfeltet, Nord-Trøndelag. *Norges geol. unders. Rapport* 94.008.
- Trønnes, R.G. 1993a: Struktur, mineralogi og kjemi av kalkspatmarmor på Ytterøya, Nord-Trøndelag. *Norges geol. unders. Rapport* 93.146.
- Trønnes, R.G. 1993b: Structure, mineralogy, chemistry and economic potential of calcitic marble i the Geitfjellet–Bukkafjellet area, Nord-Trøndelag. *Norges geol. unders. Rapport* 93.043
- Trønnes, R.G. 1988: Kjerneboring langs østgrensen av Raudbergmassivet. *Norges geol. unders. Rapport* 88.027.
- Trønnes, R. & Erichsen, E. 1988: Forprosjekt for undersøkelse av eklogitter i Sogn og Fjordane. *Norges geol. unders. Rapport* 88.066.
- Trønnes, R. 1988: Rekognoseringe kartlegging av den vestlige delen av Dalsfjelletmassivet, Gulen, Sogn og Fjordane. *Norges geol. unders. Rapport* 88.065.
- Trønnes, R. 1981: Rekognoseringe kartlegging av syenittområder innen det sørlege Larvikittmassivet i Oslofeltet. *Norges geol. unders. Rapport* 1850/77B.
- Trønnes, R. 1981: Intrusivkomplekset på Tjøme - et område med sterkt differensierte peralkaline bergarter, Oslofeltet, Tjøme, Vestfold. *Norges geol. unders. Rapport* 1800/77A.
- Trønnes, R. 1980: Bergartstyper, intrusjonsforhold og hydrotermale omvandringer og mineraliseringer, Røysjø-området, Drammensgranitten.. *Rapport til Prospekteringsavdelingen, Norsk Hydro A/S*.
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