

RUSS COLSON PUBLICATIONS:

Books (nonfiction):

- Colson R. O. and Colson M C. (2016) Learning to Read the Earth and Sky, Explorations Supporting the NGSS, Grades 6-12, NSTA Press, 426p.
- Russ Colson (2017) A Little Book of Gardening in Northwest Minnesota, Russell Colson, 110p.
- Liag Nosloc (2020) Using Up the Cream (Russ Colson, editor), Russell Colson, 163p.

Books (fiction):

- Russ Colson (2018) The Arasmith Certainty Principle, Double Dragon Publishing, 432p. Chanticleer International Book Award 1st Place Category Winner

Peer-reviewed and technical papers:

- Colson, R.O., McKay, G.A., and Taylor, L.A. (1988) Temperature and Composition dependencies of trace element partitioning: Olivine/melt and Low-Ca pyroxene/melt, *Geochim. Cosmochim. Acta* 52, 539-553.
- Colson, R.O. and Gust, D. (1989) Effects of pressure on partitioning of trace elements between low-Ca pyroxene and melt, *Am. Miner.* 74, 31-36.
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- Colson R. O. and Haskin, L. A. (1990) Lunar oxygen and metal for use in near-earth space: Magma electrolysis, In *Engineering, Construction, and Operations in Space II: Volume 1* (Ed. S. W. Johnson and J. P. Wetzel), ASCE New York, 187-196.
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- Haskin, L. A. and Colson, R. O. (1991) Physical-chemical properties of silicate melts and "magma" electrolysis, in *MISM report, Magmaelectrolysis of indigenous space materials, a state-of-the-art workshop*, Univ. of Arizona/NASA space engineering research center, Tucson, 4-23.
- Colson, R. O. (1992) Mineralization on the Moon? : Theoretical considerations of Apollo 16 "rusty rocks", sulfide replacement in 67016, and surface-correlated volatiles on lunar volcanic glass, in *Proc. Lunar and Planet. Sci. Conf. V. 22*, 427-436.
- Haskin, L. A. and Colson, R. O. (1992) Steady state composition with low Fe^{2+} concentrations for efficient O_2 production by "magma" electrolysis of lunar soils, in *Engineering, Construction, and Operations in Space III, V 1* (eds W. Z. Sadeh, S. Sture, and R. J. Miller), ASCE NY. 651-665.
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- Colson R and Colson M (2018) Testing models through personal observation: Phases of the Moon, published in *In the Trenches* v 8, n 4, online resources. https://nagt.org/nagt/publications/trenches/v8-n4/testing_models_through_persona.html
- Colson R. O. and Leonard K. () Essay and multiple choice assessment of earth science content knowledge among earth science teachers in Minnesota and North Dakota: An evaluation of factors important in teacher preparation. In revision for submission to *J. Geoscience Education*.

Other publications, presentations, and teacher workshops

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- M. Colson and R. O Colson (2016) Igneous Cooling Rates, Crystal Size, and NOT Getting the 'Right' Experimental Results at *Earth Educators' Rendezvous 2016 in Madison Wisconsin*, July 21 2016.
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- Colson R O and Colson M C (2017) NSTA Press® Session: Water and People: An Example Hydrology Unit for Grades 8–12, at the *NSTA STEM Forum and Expo, Orlando, FL*, July 2-14, 2017.
- Colson R O and Colson M C (2017) NSTA Press® Session: Creating a Classroom Narrative: Fitting science reasoning problems and open-ended investigation into a curriculum, at the *NSTA Area Conference, Milwaukee, WI*, Nov 10, 2017.
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- Colson, Russ (moderator), Bell Burnell, Jocelyn, and Consolmagno, Br Guy (2019) Epistemologies and Disciplines: Two Astronomers Meet, Dublin 2019 World Science Fiction Convention.
- Colson, Russ (panelist), Libia, Brenda (moderator), Sparks, Cat, and Rokne, Olav (2019) Changing Climates, Changing Worlds, Dublin 2019 World Science Fiction Convention.
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- Colson, Russ (2020) Effect of writing science fiction on understanding of geological concepts—preliminary results of a study in progress, Jan 7, 2020, The Teachers Corner, Issues in Earth Science, <http://earthscienceissues.net/earthteachblog/2020/01/07/effect-of-writing-science-fiction-on-understanding-of-geological-concepts-preliminary-results-of-a-study-in-progress/>
- BC, Aakash, Sharma T, Grosz, B, Kosugi, Y, Colson, R. and Colson F. (2020) Use of Pt-Melt Equilibration and Electrochemical Experiments to Constrain the Effect of Cl on NiO Activity in Silicate Melts, North Central GSA, Duluth, MN (abstract only, poster was cancelled)
- Colson, M. C. and Colson R. O. (2020) Learning About versus Figuring Out: Transforming traditional lessons into 3-dimensional lessons, Minnesota Minerals Education Workshop (MMEW), Winona State University, June 23, 2020. (cancelled)
- Colson R. O. and Colson, M. C (2021) Experimental Investigation: The Effect of Temperature on Deformation Character of Rock, presented as part of the workshop ESTEP: Professional Development for Teachers of the new 6th grade Earth Science Standards, at Bemidji MN July 27-28, Eden Prairie MN, Aug. 3-4, and Champlin MN, Aug 10-11. 5 hour workshop
- Colson, M. C. and Colson R. O. (2021) Modeling Motions in Space: Phases of the Moon, presented as part of the workshop ESTEP: Professional Development for Teachers of the new 6th grade Earth Science Standards, at Bemidji MN July 27-28, Eden Prairie MN, Aug. 3-4, and Champlin MN, Aug 10-11. 7 hour workshop.