

Bibliography for Richard W. Carlson Last Updated February 16, 2018

ISI Statistics: 165 cataloged peer-reviewed papers, 10,834 citations, average per paper 65.7, h-index = 60

Books:

- Treatise on Geochemistry, Volume 2: Geochemistry of the Mantle and Core, R.W. Carlson ed., Elsevier, 586pp., 2003.
- A Tale of Two Cratons: The Slave-Kaapvaal Workshop, A. Jones, R.W. Carlson and H. Grutter, eds., Elsevier, 592pp., 2004.
- Treatise on Geochemistry 2nd edition, Volume 3: Mantle and Core, R.W. Carlson ed., Elsevier, 576 pp., 2014.
- Geochronology and Thermochronology, P.W. Reiners, R.W. Carlson, P. Renne, K. Cooper, D. Granger, N.M. McLean, B. Schoene. Wiley/AGU, 480pp., 2018.

Chapters in Books:

1. Tectonic influence on magma composition of Cenozoic basalts from the Columbia Plateau and northwestern Great Basin, U.S.A., R. W. Carlson, in: *Explosive Volcanism: Inception, Evolution, and Hazards*, ed. F. R. Boyd, National Research Council, 23-33, 1983.
2. Flood basalt volcanism in the northwestern U.S., R. W. Carlson and W. K. Hart, in *Continental Flood Basalts*, J. D. Macdougall, ed., Kluwer Academic Publishers, 35-61, 1988.
3. Geochemistry of the subcontinental mantle, R. W. Carlson, *Yearbook of Science and Technology*, S. Parker, ed., McGraw-Hill, 1987.
4. Radiometric Age Determination, R. W. Carlson, *Encyclopedia of Geophysics*, ed. D. E. James, Van Nostrand Reinhold, 1-5, 1989.
5. Tectonomagmatism of the Wyoming Province, D. H. Eggler, J. K. Meen, F. Welt, F. O. Dudas, K. P. Furlong, M. E. McCallum, and R. W. Carlson, in *Colorado Volcanism*, J. Drexler and E. E. Larson ed., *Colorado School of Mines Quarterly* **83**, 25-40, 1988.
6. Isotopic inferences on the chemical structure of the upper mantle, R.W. Carlson, in *Invited Lectures of the International Symposium on the Physics and Chemistry of the Upper Mantle*. Sao Paulo, 99-116, 1994.
7. The mantle beneath continents, R.W. Carlson, S.B. Shirey, F.R. Boyd and D.G. Pearson, *Carnegie Inst. Washington Year Book* **93**, 109-117, 1994.
8. Chemical and isotopic systematics of peridotite xenoliths from the Williams kimberlite, Montana: Clues to processes of lithosphere formation, modification and destruction, R.W. Carlson, A.J. Irving and B.C. Hearn Jr., in Gurney, J.J., Gurney, J.L., Pascoe, M.D., and Richardson, S.H., eds., *Proc. 7th Int. Kimberlite Conf., Volume 1*: Cape Town, Red Roof Design, p. 90-98, 1999.
9. Re-Os systematics of lithospheric peridotites: implications for lithosphere formation and preservation, R.W. Carlson, D.G. Pearson, F.R. Boyd, S.B. Shirey, G. Irvine, A.H. Menzies and J.J. Gurney, in Gurney, J.J., Gurney, J.L., Pascoe, M.D., and Richardson, S.H., eds., *Proc. 7th Int. Kimberlite Conf., Volume 1*: Cape Town, Red Roof Design, p. 99-108, 1999.
10. Re-Os systematics of Newlands peridotite xenoliths: implications for diamond and lithosphere formation, A.H. Menzies, R.W. Carlson, S.B. Shirey and J.J. Gurney, in Gurney, J.J., Gurney, J.L., Pascoe, M.D., and Richardson, S.H., eds., *Proc. 7th Int. Kimberlite Conf., Volume 2*: Cape Town, Red Roof Design, p. 566-573, 1999.
11. Dating and paragenetic distinction of diamonds using the Re-Os isotope system: application to some Siberian diamonds, D.G. Pearson, S.B. Shirey, G.P. Bulanova, R.W. Carlson and H.J. Milledge, in Gurney, J.J., Gurney, J.L., Pascoe, M.D., and Richardson, S.H., eds., *Proc. 7th Int. Kimberlite Conf., Volume 2*: Cape Town, Red Roof Design, p. 637-643, 1999.
12. Timescales for planetesimal formation and differentiation based on extinct and extant radioisotopes, R.W. Carlson and G.W. Lugmair, in *Origin of the Earth and Moon*, ed. K. Righter and R. Canup, University of Arizona Press, Tucson, pp. 25-44, 2000.

13. Matrix-dependent isotope mass fractionation in the ICP-MS, R.W. Carlson, E.H. Hauri, and C.M.O'D. Alexander, in *Plasma Source Mass Spectrometry: the New Millennium*; J.G. Holland and S.D. Tanner, eds., The Royal Society of Chemistry, Cambridge, 288-297, 2001.
14. The development of lithospheric keels beneath the earliest continents: time constraints using PGE and Re-Os isotope systematics, D.G. Pearson, G.J. Irvine, R.W. Carlson, M.G. Kopylova and D.A. Ionov, in Fowler, C.M.R. (ed.), *The Early Earth: Physical, Chemical and Biological Development*, Geol. Soc. Lond. Spec. Pub. 199, p 65-90, 2002.
15. Time scales of planetesimal differentiation in the early solar system, M. Wadhwa, G. Srinivasan and R.W. Carlson, in *Meteorites and the Early Solar System II* (D.S. Lauretta and H.Y. McSween Jr., eds.), University of Arizona Press, Tucson, p 715-731, 2005.
16. Carlson, R.W., Absolute Age Determinations: Radiometric, *Encyclopedia of Solid Earth Geophysics*, ed. H. Gupta, Springer, pp. 1-8, 2011.
17. Carlson, R.W., Thermal ionization mass spectrometry, *Treatise on Geochemistry*, 2nd Edition, Volume 15, Chapter 18, ed. W.F. McDonough, p. 337-354, 2014.
18. Carlson, R.W., Radiometric Dating, in MacMillan Reference's *Discoveries in Modern Science: Exploration, Invention, Technology*, ed. J. Trefil, Farmington Hills: Macmillan, 929-933, 2015.
19. Carlson, R.W., Sm-Nd dating, in *Encyclopedia of Scientific Dating Methods*, eds. W.J. Rink, J.W. Thompson, Springer, 2015.
20. Carlson, R.W., M. Boyet, J.O'Neil, H. Rizo, R.J. Walker (2015) Early differentiation and its long term consequences for Earth evolution. Chapter 8, *The Early Earth: Accretion and Differentiation*, eds. J. Badro and M. Walter, AGU, 143-172.
21. O'Neil, J., R.W. Carlson, D. Papineau, Y.E. Abramovitch, D. Francis (2017) The Nuvvuagittuq greenstone belt: A glimpse of Earth's earliest crust, in *Earth's Oldest Rocks*, eds. Van Kranendonk, J.J., R. Smithies, V.C. Bennett, Amsterdam, Elsevier, in press, September.

Peer-reviewed Journal Papers:

1. Carlson, R.W., J. D. Macdougall and G. W. Lugmair (1978) Differential Sm-Nd evolution in oceanic basalts, *Geophys. Res. Lett.* **5**, 229-232.
2. The Sm-Nd history of KREEP, G. W. Lugmair and R. W. Carlson, *Proc. Lunar and Planet. Sci. Conf. 9th*, 689-704, 1978.
3. Sm-Nd constraints on early lunar differentiation and the evolution of KREEP, R. W. Carlson and G. W. Lugmair, *Earth Planet. Sci. Lett.* **45**, 123-132, 1979.
4. Episodic mantle differentiation: Nd and Sr isotopic evidence, H.-G. Stosch, R. W. Carlson and G. W. Lugmair, *Earth Planet. Sci. Lett.* **47**, 263-271, 1980.
5. Equilibrated Nd - unequilibrated Sr isotopes in mantle xenoliths, E. Jagoutz, R. W. Carlson, and G. W. Lugmair, *Nature* **286**, 708-710, 1980.
6. Crustal influence in the generation of continental flood basalts, R. W. Carlson, G. W. Lugmair, and J. D. Macdougall, *Nature* **289**, 160-162, 1981.
7. Time and duration of lunar highlands crust formation, R. W. Carlson and G. W. Lugmair, *Earth Planet. Sci. Lett.* **52**, 227-238, 1981.
8. Columbia River volcanism: The question of mantle heterogeneity or crustal contamination, R. W. Carlson, G. W. Lugmair, and J. D. Macdougall, *Geochim. Cosmochim. Acta* **45**, 2483-2499, 1981.
9. Sm-Nd age of lherzolite 67667: Implications for the processes involved in lunar crustal formation, R. W. Carlson and G. W. Lugmair, *Earth Planet. Sci. Lett.* **56**, 1-8, 1981.
10. Nd-Sr systematics of the Setouchi volcanic rocks, southwest Japan: A clue to the origin of orogenic andesite, K. Ishizaka and R. W. Carlson, *Earth Planet. Sci. Lett.* **64**, 327-340, 1983.
11. Reply to a critical comment by D. J. DePaolo on "Columbia River volcanism: the question of mantle heterogeneity or crustal contamination", R. W. Carlson, G. W. Lugmair, and J. D. Macdougall, *Geochim. Cosmochim. Acta* **47**, 845-846, 1983.
12. Sm-Nd age and isotopic systematics of the bimodal suite, Ancient Gneiss Complex, Swaziland, R. W. Carlson, D. R. Hunter, and F. Barker, *Nature* **305**, 701-704, 1983.
13. Comment on "Implications of oxygen-isotope data and trace-element modeling for a large-scale mixing model for the Columbia River basalts," by D. O. Nelson; R. W. Carlson, *Geology* **11**, 735-736, 1983.
14. K-Ar ages of late Cenozoic basalts from southeastern Oregon, southwestern Idaho, and northern Nevada, W. K. Hart and R. W. Carlson, *Isochron West* **38**, 23-25, 1983.

15. Isotopic constraints on Columbia River flood basalt genesis and the nature of the subcontinental mantle, R. W. Carlson, *Geochim. Cosmochim. Acta* **48**, 2357-2372, 1984.
16. Hydrothermal Mn-deposits of the Franciscan Assemblage: II. Isotope and trace element geochemistry, and implications for hydrothermal convection at spreading centers, M. S. Chyi, D. A. Crerar, R. W. Carlson, and R. F. Stallard, *Earth Planet. Sci. Lett.* **71**, 31-45, 1984.
17. Late Cenozoic volcanic geology of the Jordan Valley - Owyhee River region, southeastern Oregon, W. K. Hart, S. A. Mertzman, and R. W. Carlson, *Field Guidebook for the 1985 GSA Rocky Mountain Section Meeting*, 1985.
18. Distribution and geochronology of Steens Mountain type basalts from the northwestern Great Basin, W. K. Hart and R. W. Carlson, *Isochron West* **43**, 5-10, 1985.
19. Mantle structure and dynamics: A Carnegie Institution workshop, P. G. Silver, R. W. Carlson, P. Bell, and P. Olsen, *EOS* **66**, 1193-1198, 1985.
20. Tectonic controls on magma genesis and evolution in the northwestern United States, W. K. Hart and R. W. Carlson, *J. Volcan. Geotherm. Res.* **32**, 119-135, 1987.
21. Regional mid-Proterozoic enrichment of the subcontinental mantle source of igneous rocks from central Montana, F. O. Dudas, R. W. Carlson, and D. H. Eggler, *Geology* **15**, 22-25, 1987.
22. Crustal genesis on the Oregon Plateau, R. W. Carlson and W. K. Hart, *J. Geophys. Res.* **92**, 6191-6206, 1987.
23. Geochemical evolution of the crust and mantle, R. W. Carlson, *Rev. Geophys.* **25**, 1011-1020, 1987.
24. Lower crustal evolution under central Arizona: Isotopic and geochemical evidence from the mafic xenoliths of Camp Creek, S. Esperança, R. W. Carlson, and S. B. Shirey, *Earth Planet. Sci. Lett.* **90**, 26-40, 1988.
25. Deep slabs, geochemical heterogeneity and the large-scale structure of mantle convection: Investigation of an enduring paradox, P. Silver, R. W. Carlson, and P. Olsen, *Ann. Rev. Earth Planet. Sci.* **16**, 477-541, 1988.
26. The age of ferroan anorthosite 60025: Oldest crust on a young Moon?, R. W. Carlson and G. W. Lugmair, *Earth Planet. Sci. Lett.* **90**, 119-130, 1988.
27. Petrogenesis of the Pueblo Mountains Basalt, southeastern Oregon and northern Nevada, William K. Hart, Richard W. Carlson, and Stephanie A. Mosher, *GSA Spec. Paper* **239**, eds. S. Reidel and P.R. Hooper, 367-378, 1989.
28. Os, Sr, Nd, and Pb isotope systematics of southern African peridotite xenoliths: Implications for the chemical evolution of subcontinental mantle, R. J. Walker, R. W. Carlson, S. B. Shirey, and F. R. Boyd, *Geochim. Cosmochim. Acta* **53**, 1583-1595, 1989.
29. A Sm-Nd and Pb isotope study of Archaean greenstone belts in the southern Kaapvaal Craton, South Africa, A. H. Wilson and R. W. Carlson, *Earth Planet. Sci. Lett.* **96**, 89-105, 1989.
30. Rhenium-Osmium and Samarium-Neodymium isotopic systematics of the Stillwater Complex, D. D. Lambert, J. W. Morgan, R. J. Walker, S. B. Shirey, R. W. Carlson, M. L. Zientek and M. S. Koski, *Science* **244**, 1169-1174, 1989.
31. The large-scale structure of convection in the Earth's mantle, P. Olson, P. G. Silver and R. W. Carlson, *Nature* **344**, 209-215, 1990.
32. Magmatism in the South China Basin: I. Isotopic and trace element evidence for an endogenous Dupal mantle component, K. Tu, M. F. J. Flower, R. W. Carlson, G. Xie, C.-Y. Chen and M. Zhang, *Chem. Geol.* **97**, 47-63, 1992.
33. Origin of Nauru Basin igneous complex: Sr, Nd and Pb isotopic and REE constraints, P. R. Castillo, R. W. Carlson and R. Batiza, *Earth Planet. Sci. Lett.* **103**, 200-213, 1991.
34. Reply to a critical comment by C.M. Johnson on "Lower crustal evolution under central Arizona: Sr, Nd and Pb isotopic and geochemical evidence from the mafic xenoliths of Camp Creek, S. Esperança, R. W. Carlson and S. B. Shirey, *Earth Planet. Sci. Lett.* **99**, 406-409, 1990.
35. Sr, Nd, and Pb isotopic compositions of Hainan basalts (South China): Implications for a sub-continental lithosphere Dupal source, K. Tu, M. F. J. Flower, R. W. Carlson, M. Zhang and G. Xie, *Geology* **19**, 567-569, 1991.
36. Physical and chemical evidence on the cause and source characteristics of flood basalt volcanism, R. W. Carlson, *Australian J. Earth Sci.* **38**, 525-544, 1991.
37. Evidence from Re-Os isotopes for plume-lithosphere mixing in Karoo flood basalt genesis, R.M. Ellam, R. W. Carlson and S.B. Shirey, *Nature* **359**, 718-721, 1992.

38. Isotopic study of basaltic dikes in the Nain Complex: Evidence for enriched mantle sources, R. W. Carlson, R.A. Wiebe and R.I. Kalamarides, *Canadian J. Earth Sci.* **30**, 1141-1146, 1993.
39. Isotopic tracking of change in diet and habitat use in African elephants, P.L. Koch, J. Heisinger. C. Moss, R. W. Carlson, M.L. Fogel, A.K. Behrensmeier, *Science* **267**,1340-1343, 1995.
40. Temporal changes in the sources of flood basalts: Isotopic and trace element evidence from the Keweenaw Mamainse Point Formation, Ontario, S.B. Shirey, K.W. Klewin, J. Berg and R.W. Carlson, *Geochim. Cosmochim. Acta* **58**, 4475-4490, 1994.
41. Re-Os and Sm-Nd isotopic evidence for the petrogenesis of the Stillwater Complex, Montana. D.D. Lambert, R.J. Walker, J.W. Morgan, S.B. Shirey, R.W. Carlson, M.L. Zientek, B.R. Lipin, M.S. Koski and R.L. Cooper, *J. Pet.* **35**, 1717-1753, 1994.
42. Os isotopic variation in basalts from Haleakala volcano, Maui, Hawaii: A record of magmatic processes in oceanic mantle and crust. C.E. Martin, R.W. Carlson, S.B. Shirey, C.-Y. Chen and F.A. Frey, *Earth Planet. Sci. Lett.* **128**, 287-301, 1995.
43. Depletion and enrichment history of subcontinental lithospheric mantle: Os, Sr, Nd and Pb evidence for xenoliths from the Wyoming craton. R.W. Carlson and A.J. Irving, *Earth Planet. Sci. Lett.* **126**, 457-472, 1994.
44. East Mariana Basin tholeiites: Jurassic ocean crust or Cretaceous rift basalts related to the Ontong Java plume? P.R. Castillo, M. Pringle and R.W. Carlson, *Earth Planet. Sci. Lett.* **123**, 139-154, 1994.
45. Re-Os, Sm-Nd & Rb-Sr isotope evidence for thick Archaean lithospheric mantle beneath the Siberia craton modified by multi-stage metasomatism. D.G. Pearson, S.B. Shirey, R.W. Carlson, F.R. Boyd, N.P. Pokhilenko and N. Shimizu, *Geochim. Cosmochim. Acta* **59**, 959-977, 1995.
46. Mechanisms of Earth differentiation: Consequences for the chemical structure of the mantle. R.W. Carlson, *Rev. Geophys.* **32**, 337-361, 1994.
47. Stabilization of Archaean lithospheric mantle: A Re-Os isotope study of peridotite xenoliths from the Kaapvaal craton, D.G. Pearson, R.W. Carlson, S.B. Shirey, F.R. Boyd and P.H. Nixon, *Earth Planet. Sci. Lett.* **134**, 341-357, 1995.
48. Archaean Re-Os age for Siberian eclogites and constraints on Archaean tectonics, D.G. Pearson, G.A. Snyder, S.B. Shirey, L.A. Taylor, R.W. Carlson, and N.V. Sobolev, *Nature* **374**, 711-713, 1995.
49. Major, trace element and isotopic compositions of Vietnamese basalts: Interaction of hydrous EM1-rich asthenosphere with thinned Eurasian lithosphere, H. Nguyen, M. Flower, R.W. Carlson, *Geochim. Cosmochim. Acta* **60**, 4329-4351, 1996.
50. Isotopic inferences on the chemical structure of the mantle, R.W. Carlson, *J. Geodynamics* **20**, 365-386, 1995.
51. The petrology and geochemistry of coastal dikes from Sao Paulo State, Brazil: Implications for variable lithospheric contributions to alkaline magmas from the western margin of the South Atlantic, G.M. Garda, J.H.D. Schorscher, S. Esperanca and R.W. Carlson, *Anais da Academia Brasileira de Ciencias* **67**, *supl. 1*, 1995.
52. Th-Sr-Nd-Pb isotope and trace element evidence for the origin of the Sao Miguel, Azores, enriched mantle source, E. Widom, R.W. Carlson, J.B. Gill and H.-U. Schmincke, *Chem. Geol.* **140**, 49-68, 1997.
53. Os recycling in subduction zones, A.D. Brandon, R.A. Creaser, S.B. Shirey and R.W. Carlson, *Science* **272**, 861-864, 1996.
54. Anatomy of an Archean craton: A program for interdisciplinary studies of the Kaapvaal craton, southern Africa, R.W. Carlson, T.L. Grove, M.J. de Wit and J.J. Gurney, *Eos* **77**, 273&277, 1996.
55. Chemical and Os isotopic study of Cretaceous potassic rocks from southern Brazil, R.W. Carlson, S. Esperanca and D.P. Svisero, *Contrib. Mineral. Petrol.* **125**, 393-405, 1996.
56. Radiometric ages of basaltic achondrites and their relation to the early history of the solar system, F. Tera, R.W. Carlson and N.Z. Boctor, *Geochim. Cosmochim. Acta* **61**, 1713-1731, 1997.
57. Radiogenic Os in primitive basalts from the northwestern U.S.A.: implications for petrogenesis, W.K. Hart, R.W. Carlson and S.B. Shirey, *Earth Planet. Sci. Lett.* **150**, 103-116, 1997.
58. Dating crust - mantle separation: Re-Os isotopic study of mafic xenoliths from central Arizona, S. Esperanca, R.W. Carlson, S.B. Shirey and D. Smith, *Geology* **25**, 651-654, 1997.
59. Torfajokull: a radiogenic end-member of the Iceland Pb-isotopic array, O. Stecher, R.W. Carlson and B. Gunnarsson, *Earth Planet. Sci. Lett.* **165**, 117-127, 1999.
60. Constraints from high-pressure veins in eclogites on the composition of hydrous fluids in subduction zones, H. Becker, K.P. Jochum and R.W. Carlson, *Chem. Geol.* **160**, 291-308, 1999.

61. Sulfide inclusions in diamonds from the Koffiefontein kimberlite, S. Africa: Constraints on diamond ages and mantle Re-Os systematics, D.G. Pearson, S.B. Shirey, J.W. Harris and R.W. Carlson, *Earth Planet. Sci. Lett.* **160**, 311-326, 1998.
62. Re-Os isotope measurements of single sulfide inclusions in a Siberian diamond and its nitrogen aggregation systematics, D.G. Pearson, S.B. Shirey, G.P. Bulanova, R.W. Carlson and H.J. Milledge, *Geochim. Cosmochim. Acta* **63**, 703-711, 1999.
63. A multielement geochronology study of the Great Dyke, Zimbabwe: Significance of the robust and reset ages, S.B. Mukasa, A.H. Wilson and R.W. Carlson, *Earth Planet. Sci. Lett.* **164**, 353-369, 1998.
64. Trace element fractionation during dehydration of eclogites from high-pressure terranes and the implications for element fluxes in subduction zones, H. Becker, K.P. Jochum and R.W. Carlson, *Chem. Geol.* **163**, 65-99, 2000.
65. Isotopic constraints on time scales and mechanisms of slab material transport in the mantle wedge: evidence from the Simcoe mantle xenoliths, Washington, USA, A.D. Brandon, H. Becker, R.W. Carlson, and S.B. Shirey, *Chem. Geol.* **160**, 387-407, 1999.
66. Tracking mammoths and mastodons: reconstruction of migratory behavior using strontium isotope ratios, K.A. Hoppe, P.L. Koch, R.W. Carlson and S.D. Webb, *Geology* **27**, 439-442, 1999.
67. Ultramafic rocks at the center of the Vredefort structure: further evidence for the crust-on-edge model, M. Tredoux, R.J. Hart, R.W. Carlson and S.B. Shirey, *Geology* **27**, 923-926, 1999.
68. Assessment of the Pb-Pb and U-Pb chronometry of the early solar system, F. Tera and R.W. Carlson, *Geochim. Cosmochim. Acta* **63**, 1877-1889, 1999.
69. Accurate and precise determination of Li isotopic compositions by multi-collector sector ICP-MS, P.B. Tomascak, R.W. Carlson and S.B. Shirey, *Chem. Geol.* **158**, 145-154, 1999.
70. Continent growth, preservation and modification: A case study of southern Africa, R.W. Carlson, F.R. Boyd, S.B. Shirey, P.E. Janney, T.L. Grove, S.A. Bowring, M.D. Schmitz, J.C. Dann, D.G. Pearson, D.R. Bell, J.J. Gurney, S.H. Richardson, M. Tredoux, A.H. Menzies, R.J. Hart, A.H. Wilson, D. Moser, *GSAToday* **10**, 1-6, 2000.
71. USArray Initiative, A. Meltzer, R. Rudnick, P. Zeitler, A. Levander, G. Humphreys, K. Karlstrom, G. Ekstrom, R. Carlson, T. Dixon, M. Gurnis, P. Shearer, R. van der Hilst, *GSAToday* **9**, 8-10, 1999.
72. Evolution of the Kaapvaal lithospheric mantle: A Re-Os isotope study of peridotite xenoliths from Lesotho kimberlites, G.J. Irvine, D.G. Pearson, R.W. Carlson, *Geophys. Res. Lett.* **28**, 2505-2508, 2001.
73. Archean subduction recorded by Re-Os isotopes in eclogitic sulfide inclusions in Kimberley diamonds, S.H. Richardson, S.B. Shirey, J.W. Harris, R.W. Carlson, *Earth Planet. Sci. Lett.* **191**, 257-266, 2001.
74. Extending the ^{107}Pd - ^{107}Ag Chronometer to Low Pd/Ag Meteorites with the MC-ICPMS, R.W. Carlson and E.H. Hauri, *Geochim. Cosmochim. Acta* **65**, 1839-1848, 2001.
75. Archean emplacement of eclogitic components into the lithospheric mantle during formation of the Kaapvaal craton, S.B. Shirey, S.H. Richardson, A. Menzies, D.G. Pearson, J.W. Harris, R.W. Carlson, U. Wiechert, and J.J. Gurney, *Geophys. Res. Lett.* **28**, 2509-2512, 2001.
76. Effects of melt percolation on the Re-Os systematics of peridotites from a Paleozoic convergent plate margin, H. Becker, S.B. Shirey and R.W. Carlson, *Earth Planet. Sci. Lett.* **188**, 107-121, 2001.
77. Mafic sources for mantle derived magmas: Os and Hf isotopic evidence from potassic magmas of the Colorado Plateau, R.W. Carlson and G.M. Nowell, G-cubed, paper# 2000GC000128, 2001.
78. Petrology of kamafugites and kimberlites from the Alto Paranaíba Alkaline Province, Minas Gerais, Brazil, A.L.N. Araujo, R.W. Carlson, J.C. Gaspar and L.A. Bizzi, *Contrib. Miner. Petrol.* **142**, 163-177, 2001.
79. Pb, Nd, Sr and Os isotopic systematics of Brazilian Cretaceous potassic rocks, A.L.N. Araujo, J.C. Gaspar, R.W. Carlson, S.E. Sichel, V.S. Costa and N.A. Teixeira, *Revista Brasileira de Geociencias* **31**, 163-168, 2001.
80. The early evolution of the inner solar system: A meteoritic perspective, C.M.O'D. Alexander, A.P. Boss and R.W. Carlson, *Science* **293**, 64-68, 2001.
81. Unusual coexistence of subduction-related and intraplate-type magmatism: Sr, Nd and Pb isotope and trace element data from the magmatism of the San Pedro - Ceboruco graben, Nayarit, Mexico, C.M. Petrone, L. Francalanci, R.W. Carlson, L. Ferrari and S. Conticelli, *Chem. Geol.* **193**, 1-24, 2003.
82. Re-Os evidence for replacement of ancient mantle lithosphere beneath the North China craton, S. Gao, R.L. Rudnick, R.W. Carlson, W.F. McDonough and Y.-S. Liu, *Earth Planet. Sci Lett.* **198**, 307-322, 2002.

83. Nickel-rich nodules from the Morokweng impact melt sheet, South Africa: possible fragments of a paleometeorite. R.J. Hart, M. Cloete, I. McDonald, R.W. Carlson, M.A.G. Andreoli, M. Tredoux, *Earth Planet. Sci. Lett.* 198, 49-62, 2002.
84. Precise and accurate measurement of ^{226}Ra - ^{230}Th - ^{238}U disequilibria in volcanic rocks using plasma ionization multicollector mass spectrometry (MC-ICP-MS), A.J. Pietruszka, R.W. Carlson and E.H. Hauri, *Chem. Geol.*, 188, 171-191, 2002.
85. A chemical and multi-isotopic study of olivine melilitites and associated rocks from the Western Cape, South Africa: implications for the sources of group 1 kimberlites and constraints on the origin of the HIMU component in Africa, P.E. Janney, A.P. leRoex, R.W. Carlson and K.S. Viljoen, *J. Petrol.*, 43, 2339-2370, 2002.
86. Re-Os and U-Pb geochronological constraints on the eclogite-tonalite connection in the Archean Man Shield, West Africa. M.G. Barth, R.L. Rudnick, R.W. Carlson, I. Horn, W.F. McDonough, *Prec. Res.* 118, 267-283, 2002
87. Re-Os systematics of diamond-bearing eclogites from Newlands kimberlite, A.H. Menzies, R.W. Carlson, S.B. Shirey and J.J. Gurney, *Lithos* 71, 323-336, 2003.
88. Re-Os and Sm-Nd isotope systematics and trace element geochemistry setting constraints in the chromite deposits of Ipueira-Medrado Sill, Bahia, Brazil, J.C. Marques, C.F. Ferreira Filho, R.W. Carlson, M.M. Pimentel, *J. Petrol.* 44, 659-678, 2002.
89. The origin of garnet and clinopyroxene in "depleted" Kaapvaal peridotites, N.S.C. Simon, G.J. Irvine, G.R. Davies, D.G. Pearson, R.W. Carlson, *Lithos* 71, 289-322, 2003.
90. Evolution of the lithospheric mantle beneath Northern Canada: A Re-Os isotope and PGE study of peridotite xenoliths from Somerset Island kimberlites and a comparison to Slave craton lithospheric mantle, G.J. Irvine, D.G. Pearson, B.A. Kjarsgaard, R.W. Carlson, M.G. Kopylova, G. Dreibus, *Lithos* 71, 461-488, 2003.
91. The role of open system processes in the development of silicic magma chambers: A chemical and isotopic investigation of the Fogo A trachyte deposit, Sao Miguel, Azores, D.C. Snyder, E.W. Widom, A.J. Pietruszka and R.W. Carlson, *J. Petrol.* 45, 723-738, 2004.
92. High precision iron isotope measurements of meteoritic material by cold plasma ICP-MS, K. Kehm, E.H. Hauri, C.M.O'D. Alexander, R.W. Carlson, *Geochim. Cosmochim. Acta* 67, 2879-2891, 2003, DOI: 10.1016/S0016-7037(03)00080-2.
93. Nd-Sr-Hf isotope systematics of kimberlites and megacrysts: Constraints on their source components, G.M. Nowell, D.G. Pearson, P.D. Kempton, S.R. Noble, R.W. Carlson, C.B. Smith, D.R. Bell and R.E. Zartmann, *J. Pet.* 45, 1583-1612, 2004.
94. Age of the Eastern Kaapvaal Mantle: Re-Os data for peridotite xenoliths from the Monastery kimberlite, R.W. Carlson and R. O. Moore, *South African J. Geology* 107, 81-90, 2004.
95. A metasomatic origin for late Archean eclogitic diamonds: implications from internal morphology of Klipspringer diamonds and Re-Os and S isotope characteristics of their sulfide inclusions, K.J. Westerlund, J.J. Gurney, R.W. Carlson and S.B. Shirey, *South African J. Geology* 107, 119-130, 2004.
96. Platinum group elements and Re/Os data from the Vredefort basement: clues to the assembly of the Kaapvaal Craton, R Hart, M Andreoli, L Ashwal, R Carlson, M de Wit, I McDonald, D Moser, M Tredoux, *South African J. Geology* 107, 173-184, 2004.
97. Earth's most depleted komatiites: hydrous melting and the Archean Kaapvaal mantle keel, A.H. Wilson, S.B. Shirey and R.W. Carlson, *Nature* 423, 858-861, 2003.
98. Xenolith constraints on seismic velocities in the upper mantle beneath southern Africa, D.E. James, F.R. Boyd, D. Schutt, D.R. Bell and R.W. Carlson, *G3*, doi:10.1029/2003GC000551, 2004.
99. A geochemical database for western North American volcanic and intrusive rocks (NAVDAT). J.D. Walker, T.D. Bowers, R.A. Black, A.F. Glazner, G.L. Farmer, and R.W. Carlson, *Geol. Soc. Am. Spec. Papers* 397, 61-71, 2006.
100. Slab-derived osmium and isotopic disequilibrium in garnet pyroxenites from a Paleozoic convergent plate margin (lower Austria), H. Becker, R.W. Carlson and S.B. Shirey, *Chem. Geol.* 208, 141-156, 2004.
101. Timing of Precambrian melt depletion and Phanerozoic refertilization events in the lithospheric mantle of the Wyoming Craton and adjacent Central Plains Orogen, R.W. Carlson, A.J. Irving, D.J. Schulze and B. Carter Hearn Jr., *Lithos* 77, 453-472, 2004.
102. Application of the Pt-Re-Os isotopic systems in igneous geochemistry and geochronology, R.W. Carlson, *Lithos* 82, 249-272, 2005.

103. Silica and volatile-element metasomatism of Archean mantle: a xenolith-scale example from the Kaapvaal Craton, D.R. Bell, M. Gregoire, T.L. Grove, N. Chatterjee, R.W. Carlson, P.R. Buseck, *Contrib. Mineral. Petrol* 150, 251-267, 2005
104. Physical, chemical and chronological characteristics of continental mantle, R.W. Carlson, D.G. Pearson, D.E. James, *Rev. Geophys.* 43, doi:10.1029/2004RG000156, 2005.
105. Hafnium isotope and trace element constraints on the nature of mantle heterogeneity beneath the central Southwest Indian Ridge (13°E to 47°E), P.E. Janney, A.P. le Roux, and R.W. Carlson, *J. Petrol.* 46, 2427-2464, 2005.
106. A subduction wedge origin for Paleoproterozoic peridotitic diamonds and harzburgites from the Panda kimberlite, Slave Craton: evidence from Re-Os isotope systematics, K.J. Westerlund, S.B. Shirey, S.H. Richardson, R.W. Carlson, J.J. Gurney, and J.W. Harris, *Contrib. Min. Pet.* 152, 275-294, doi 10.1007/s00410-006-0101-8, 2006.
107. Nd, Sr and Os isotope systematics in young, fertile spinel peridotite xenoliths from northern Queensland, Australia: A unique view of depleted MORB mantle?, M.R. Handler, V.C. Bennett and R.W. Carlson, *Geochim. Cosmochim. Acta* 69, 5747-5763, 2005.
108. ¹⁴²Nd evidence for early (>4.53 billion year) global differentiation of the silicate earth, M. Boyet and R.W. Carlson, *Science* 309, 576-581, 2005.
109. Remelting of recently depleted mantle within the Hawaiian plume inferred from the ²²⁶Ra-²³⁰Th-²³⁸U disequilibria of Pu'u O-o eruption lavas, A.J. Pietruszka, E.H. Hauri, R.W. Carlson and M.O. Garcia, *Earth Planet. Sci. Lett.* 244, 155-169, 2006.
110. Time scales of formation of zoned magma chambers: U-series disequilibria in the Fogo A and 1563 A.D. trachyte deposits, D.C. Snyder, E. Widom, A.J. Pietruszka and R.W. Carlson, *Chem. Geol.* 239, 138-155, 2007.
111. Fe-rich dunite xenoliths from South African kimberlites: Cumulates from Karoo flood basalts, T. Rehfeldt, D.E. Jacob, R.W. Carlson and S.F. Foley, *J. Pet.* 48, 1387-1409, 2007.
112. A new geochemical model for the Earth's mantle inferred from 146Sm-142Nd systematics, M. Boyet and R.W. Carlson, *Earth Planet. Sci. Lett.* 250, 254-268, 2006.
113. Chemical and isotopic (Os, Pb, Nd and Sr) composition of Neogene to Quaternary calc-alkalic, shoshonitic and ultrapotassic mafic rocks from the Italian peninsula: inferences on the nature of their mantle sources, S. Conticelli, R.W. Carlson, E. Widom and G. Serri, *Geol. Soc. Amer. Spec. Paper* 418, eds. L. Beccaluva, G. Bianchini and M. Wilson, 171-203, 2007.
114. High precision Ag isotope measurements in geologic materials by multiple collector ICPMS: an evaluation of dry- versus wet-plasma, M. Schonbachler, R.W. Carlson, M.F. Horan, T. Mock and E.H. Hauri, *Int. J. Mass Spec.* 261, 183-191, 2007.
115. A comparison of Siberian meimechites and kimberlites: Implications for the source of high-Mg alkalic magmas and flood basalts, R.W. Carlson, G. Czamanske, V. Fedorenko and I. Ilupin, *Geochim. Geophys. Geosystems* 7, 11, doi:10.1029/2006GC001342, 2006.
116. Chemical and isotopic relationships between peridotite xenoliths and mafic-ultrapotassic rocks from southern Brazil, R.W. Carlson, A.L.N. Araujo, T.C. Junqueira-Brod, J.C. Gaspar, J.A. Brod, I.A. Petrinovic, M.H.B.M. Hollanda, M.M. Pimentel and S. Sichel, *Chem. Geol.* 242, 418-437, 2007.
117. Osmium isotope evidence for uniform distribution of s- and r-process components in the early solar system, T. Yokoyama, V.K. Rai, C.M.O'D. Alexander, R.S. Lewis, R.W. Carlson, S.B. Shirey, M.H. Thiemens and R.J. Walker, *Earth Planet. Sci. Lett.* 259, 567-580, 2007.
118. Chondrite barium, neodymium and samarium nucleosynthetic heterogeneity: Implications for early earth differentiation, R.W. Carlson, M. Boyet and M. Horan, *Science* 316, 1175-1178, 2007.
119. Alexandria, Egypt, before Alexander the Great: A multidisciplinary approach yields rich discoveries, J-D. Stanley, R.W. Carlson, G. Van Beek, T.F. Jorstad, and E.A. Landau, *GSA Today* 17, #8, doi: 10.1130/GSAT01708A.1, 2007.
120. Re-Os isotope constraints on subcontinental lithospheric mantle evolution of southern South America, M. Schilling, R.W. Carlson, R.V. Conceicao, C. Dantas, G.W. Bertotto and E. Koester, *Earth Planet. Sci. Lett.* 268, 89-101, 2008.
121. A highly depleted moon or a non-magma ocean origin for the lunar crust?, M. Boyet and R.W. Carlson, *Earth Planet. Sci. Lett.* 262, 505-516, 2007.
122. The origin and evolution of the Kaapvaal Cratonic lithospheric mantle, N.S.C. Simon, R.W. Carlson, D.G. Pearson and G.R. Davies, *J. Pet.* 48, 3, 589-625, 2007.

123. Residual platinum-group minerals from highly depleted harzburgites of the Lherz massif (France) and their role in HSE fractionation in the mantle, A. Luguet, S.B. Shirey, J.-P. Lorand, M.F. Horan and R.W. Carlson, *Geochim. Cosmochim. Acta* 71, 3082-3097, 2007.
124. Composition of Earth's interior: the importance of early events, R.W. Carlson and M. Boyet, *Phil. Trans. Roy. Soc. Lond. A* 366, 4077-4103, 2008.
125. (U-Th)/He dating of kimberlites: A case study from north-eastern Kansas, T.J. Blackburn, D.F. Stockli, R.W. Carlson, P. Berendsen, *Earth Planet. Sci. Lett.* 275, 111-120, 2008.
126. Silver isotope variations in chondrites: volatile depletion and the initial ^{107}Pd abundance of the solar system, M. Schonbachler, R.W. Carlson, M.F. Horan, T.D. Mock and E.H. Hauri, *Geochim. Cosmochim. Acta* 72, 5330-5341, 2008.
127. Applications of PGE radiometric systems in geo- and cosmochemistry, R.W. Carlson, S.B. Shirey and M. Schonbachler, *Elements* 4, 239-245, 2008.
128. 3D seismic velocity structure of the northwestern United States, J.B. Roth, M.J. Fouch, D.E. James, and R.W. Carlson, *Geophys. Res. Lett.* 35, L15304, doi:10.1029/2008GL034669, 2008.
129. Neodymium-142 evidence for Hadean mafic crust, J. O'Neil, R.W. Carlson, D. Francis, and R.K. Stevenson, *Science* 321, 1828-1831, 2008.
130. Extremely depleted lithospheric mantle and diamonds beneath the southern Zimbabwe Craton, C.B. Smith, D.G. Pearson, G.P. Bulanova, A.D. Beard, R.W. Carlson, K. Sims, L. Chimuka, E. Muchemwa, and N. Wittig, *Lithos* 112, 1120-1132, 2009.
131. Contrasting types of metasomatism in dunite, wehrlite and websterite xenoliths from Kimberley, South Africa, T. Rehfeldt, S.F. Foley, D.E. Jacob, R.W. Carlson and D. Lowry, *Geochim. Cosmochim. Acta* 72, 5722-5756, 2008.
132. Short-lived radionuclides as monitors of early crust-mantle differentiation on the terrestrial planets, R.W. Carlson and M. Boyet, *Earth and Planet. Sci. Lett.* 279, 147-156, 2009.
133. Old Sm-Nd ages for cumulate eucrites and redetermination of the solar system initial $^{146}\text{Sm}/^{144}\text{Sm}$ ratio, M. Boyet, R.W. Carlson and M. Horan, *Earth Planet. Sci. Lett.* 291, 172-181, 2010.
134. Geological and geophysical perspectives on the magmatic and tectonic development of the High Lava Plains and northwest Basin and Range, Andrew Meigs, Kaleb Scarberry, Anita Grunder, R.W. Carlson, M. Ford, M.J. Fouch, W.H. Hart, T.L. Grove, M. Iademarco, B. Jordan, J. Milliard, M. Streck, David Trench and R. Weldon, *GSA Field Guide* 15, 435-470, doi10.1130/2009.fld015(21), 2009.
135. Response to comment on "Neodymium-142 evidence for Hadean mafic crust", J. O'Neil, R.W. Carlson, D. Francis, R.K. Stevenson, *Science* 325, 267-b, 2009.
136. Contributors to chromium isotope variation of meteorites, L. Qin, C.M. O'D. Alexander, R.W. Carlson, M.F. Horan and T. Yokoyama, *Geochim. Cosmochim. Acta* 74, 1122-1145, 2010.
137. Evidence for the survival of the oldest terrestrial mantle reservoir, M.G. Jackson, R.W. Carlson, M.D. Kurz, P.D. Kempton and D. Francis, *Nature* 466, 853-856, 2010.
138. Heterogeneous accretion and the moderately volatile element budget of Earth, M. Schonbachler, R.W. Carlson, M.F. Horan, T.D. Mock and E.H. Hauri, *Science*, 328, 884-887, 2010.
139. Isotopic (Sr, Nd, Pb, and Os) composition of highly magnesian dikes of Vestfjella, western Dronning Maud Land, Antarctica: A key to the origins of the Jurassic Karoo large igneous province? J. Heinonen, R.W. Carlson and A.V. Luttinen, *Chem. Geol.* 277, 227-244, 2010.
140. The chromium isotopic composition of Almahata Sitta, L. Qin, D. Rumble, C.M.O'D. Alexander, R.W. Carlson, P. Jenniskens, M.H. Shaddard, *Meteoritics Planet. Sci.*, 45, 1771-1777, 2010.
141. Extreme ^{54}Cr -rich nano-oxides in the CI chondrite Orgueil: Implication for a late supernova injection into the solar system, L. Qin, L.R. Nittler, C.M. O'D. Alexander, J. Wang, F.J. Stadermann and R.W. Carlson, *Geochim. Cosmochim. Acta* 75, 629-644, 2011.
142. Make research data public? Not Always so simple: a dialogue for statisticians and science editors, N. Sedransk, K. Kelner, R. Moffitt, A. Thakar, J. Raddick, E. Ungvarsky, R.W. Carlson, R. Apweiler, L.H. Cox, D. Nolan, K.A. Soper, and C. Spiegelman, *Statistical Science* 25, 41-50, 2010.
143. Age, composition and thermal characteristics of South African off-craton mantle lithosphere: Evidence for a multi-stage history, P.E. Janney, S.B. Shirey, R.W. Carlson, D.G. Pearson, D.R. Bell, A.P. Le Roex, A. Ishikawa, P.H. Nixon and F.R. Boyd, *J. Pet.* 51, 1849-1890, 2010.
144. Implications of the Nuvvuagittuq "faux-amphibolite" for the formation of Earth's early crust, J. O'Neil, D. Francis and R.W. Carlson, *J. Petrol.* 52, 985-1009, 2011.

145. Crustal structure beneath the High Lava Plains of Eastern Oregon and surrounding regions from receiver function analysis, K.C. Eagar, M.J. Fouch, D.E. James, R.W. Carlson, *J. Geophys. Res.* 116, B02313, doi:10.1029/2010JB007795, 2011
146. Miocene magmatism and the ancestral Cascade Arc in the southern Oregon Basin and Range margin, USA, K.C. Scarberry, A.L. Grunder, V.E. Camp and R.W. Carlson, *Contrib. Min. Petrol.*, submitted, September, 2010.
147. Excesses of seawater-derived ^{234}U in volcanic glasses from Loihi Seamount due to crustal contamination, A.J. Pietruszka, M.J. Keyes, J.A. Duncan, E.H. Hauri, R.W. Carlson and M.O. Garcia, *Earth Planet. Sci. Lett.* 304, 280-289, 2011.
148. Nonchondritic ^{142}Nd in suboceanic mantle peridotites, A. Cipriani, E. Bonatti, and R.W. Carlson, *Geochem. Geophys. Geosyst.* 12, Q03006, doi:10.1029/2010GC003415, 2011.
149. Chronologic evidence that the Moon is either young or did not have a global magma ocean, L.E. Borg, J.N. Connelly, M. Boyet, and R.W. Carlson, *Nature* 477, 70-72, 2011.
150. An ancient recipe for flood-basalt genesis, M.G. Jackson and R.W. Carlson, *Nature* 476, 316-319, 2011.
151. Source of Mesozoic intermediate-felsic igneous rocks in the North China craton: granulite xenolith evidence, N. Jiang, R.W. Carlson and J. Guo, *Lithos* 125, 335-346, 2011.
152. Slab fragmentation, edge flow and the origin of the Yellowstone hotspot track, D.E. James, M.J. Fouch, R.W. Carlson, J.B. Roth, *Earth Planet. Sci. Lett.* 311, 124-135, 2011.
153. Correlated nucleosynthetic isotopic variability in Cr, Sr, Ba, Sm, Nd, and Hf in Murchison and QUE 97008, L. Qin, R.W. Carlson and C.M.O'D. Alexander, *Geochim. Cosmochim. Acta* 75, 7806-7828, 2011.
154. Comparative Sr-Nd-Hf-Os-Pb isotopic systematics of xenolithic peridotites from Yangyuan, North China Craton, J. Liu, R.W. Carlson, R.L. Rudnick, R.J. Walker, S. Gao, F-Y, Wu *Chem. Geol.* 332-333, 1-14, 2012.
155. O'Neil, J., R.W. Carlson, J.-L. Paquette and D. Francis (2012) Formation age and metamorphic history of the Nuvvuagittuq greenstone belt. *Precambrian Res.* 220-221, 23-44.
156. Jackson, M.G. and R.W. Carlson (2012) Homogeneous superchondritic $^{142}\text{Nd}/^{144}\text{Nd}$ in the mid-ocean ridge basalt and ocean island basalt mantle, *Geochem. Geophys. Geosyst.* 13, doi:10.1029/2011GC003974.
157. Horan, M.F., R.W. Carlson and J. Blichert-Toft (2012) Pd-Ag chronology of volatile depletion, crystallization and shock in the Muonionalusta IVA iron meteorite and implications for its parent body. *Earth Planet. Sci. Lett.* 351-352, 215-222.
158. Long, M.D., C.B. Till, K.A. Druken, R.W. Carlson, L.S. Wagner, M.J. Fouch, D.E. James, T.L. Grove, N. Schmerr, and C. Kincaid, (2012) Mantle dynamics beneath the Pacific Northwest and the generation of voluminous back-arc volcanism, *Geochem. Geophys. Geosyst.* 13 doi:10.1029/2012GC004189.
159. Till, C.B., T.L. Grove, R.W. Carlson, J.M. Donnelly-Nolan, M.J. Fouch, L.S. Wagner and W.K. Hart, (2013) Depths and temperatures of asthenospheric melting and the lithosphere-asthenosphere boundary in the southern Cascades arc and back-arc, *Geochem. Geophys. Geosyst.* 14, doi:10.1029/2012GC004463.
160. O'Neil, J., M. Boyet, R.W. Carlson and J.-L. Paquette (2013) Half a billion years of reworking of Hadean mafic crust to produce the Nuvvuagittuq Eoarchean felsic crust. *Earth and Planetary Science Letters*, 379, 13-25, 2013.
161. Darling, J.R., D.E. Moser, L. Heaman, W.J. Davis, R. Stern, J. O'Neil, R.W. Carlson (2013) Hadean to Neoproterozoic evolution of the Nuvvuagittuq greenstone belt: new insights from U-Pb zircon geochronology. *American Journal of Science* 313, 844-876, 2013.
162. Sanborn, M.E., R.W. Carlson and M. Wadhwa (2015) $^{147,146}\text{Sm}$ - $^{143,142}\text{Nd}$, ^{176}Lu - ^{176}Hf , and ^{87}Rb - ^{87}Sr systematics in the Angrites: implications for chronology and processes on the angrite parent body, *Geochim. Cosmochim. Acta* 171, 80-99.
163. Carlson, R.W., L.E. Borg, A.M. Gaffney, M. Boyet (2014) Rb-Sr, Sm-Nd and Lu-Hf isotope systematics of the lunar Mg-suite: Refining the age and duration of lunar crust formation. *Phil. Trans. Roy. Soc. A*, 372: 20130246, dx.doi.org/10.1098/rsta.2013.0246.
164. Carlson, R.W., E. Garnero, T.M. Harrison, J. Li, M. Manga, W.F. McDonough, S. Mukhopadhyay, B. Romanowicz, D. Rubie, Q. Williams, S. Zhong (2014) How did early Earth become our modern world? *Ann. Rev. Earth Planet. Sci.*, 42, 151-178.

165. Boyet, M., R.W. Carlson, L.E. Borg, M. Horan (2015) Sm-Nd systematics of lunar ferroan-anorthosite: Constraints on Moon formation and its early evolution. *Geochim. Cosmochim. Acta* 148, 203-218.
166. Zhao, C., E.J. Garnero, A.K. McNamara, N. Schmerr, R.W. Carlson (2015) Seismic evidence for a chemically distinct thermochemical reservoir in Earth's deep mantle beneath Hawaii. *Earth Planet. Sci. Lett.* 426, 143-153.
167. Qin, L., N. Dauphas, M. Horan, I. Leya, R.W. Carlson (2015) Rapid accretion and differentiation of the parent-body of IID iron meteorites from correlated W and Os isotopic variations in Carbo. *Geochim. Cosmochim. Acta* 153, 91-104.
168. Duke, G.I., R.W. Carlson, C.D. Frost, B.C. Hearn Jr., G.N. Eby (2014) Continent-scale linearity of kimberlite-carbonatite magmatism, mid-continent North America. *Earth Planet. Sci. Lett.* 403, 1-14.
169. Heinonen, J.S., R.W. Carlson, T.R. Riley, A.V. Luttinen, M.F. Horan (2014) Subduction-modified oceanic crust mixed with a depleted mantle reservoir in the sources of the Karoo continental flood basalt province. *Earth Planet. Sci. Lett.* 394, 229-241.
170. Ionov, D.A., L.S. Doucet, R.W. Carlson, A.V. Golovin, A.V. Korsakov (2015) Post-Archean formation of the lithospheric mantle in the central Siberian craton: Re-Os and PGE study of peridotite xenoliths from the Udachnaya kimberlite. *Geochim. Cosmochim. Acta* 165, 466-483.
171. O'Neil, J., H. Rizo, M. Boyet, R.W. Carlson, M.T. Rosing (2016) Geochemistry and Nd isotopic characteristics of Earth's Hadean mantle and primitive crust. *Earth Planet. Sci. Lett.* 442, 194-205.
172. Rizo, H., R.J. Walker, R.W. Carlson, M. Touboul, M. Horan, I.S. Puchtel, M. Boyet, M. Rosing (2015) Early Earth differentiation investigated through ^{142}Nd , ^{182}W , and highly siderophile element abundances in samples from Isua, Greenland. *Geochim. Cosmochim. Acta* 175, 319-336.
173. Ionov, D.A., R.W. Carlson, L.S. Doucet, A.V. Golovin, O.B. Oleinikov (2015) The age and history of the lithospheric mantle of the Siberian craton: Re-Os and PGE study of peridotite xenoliths from the Obnazhennaya kimberlite. *Earth and Planetary Science Letters* 428, 108-119.
174. Bermingham, K.R., K. Mezger, E.E. Scherer, M. Horan, R.W. Carlson, D. Upadhyay, T. Magna, A. Pack (2016) Barium isotope abundances in meteorites and their implications for early solar system evolution. *Geochimica et Cosmochimica Acta* 175, 282-298.
175. Mangwegape, M., F. Roelofse, T. Mock, R.W. Carlson (2016) The Sr-isotope stratigraphy of the Northern Limb of the Bushveld Complex, South Africa. *Journal of African Earth Sciences* 113, 95-100.
176. Rizo, H., R.J. Walker, R.W. Carlson, M. Horan, S. Mukhopadhyay, V. Manthos, D. Francis, M.G. Jackson (2016) Preservation of Earth-forming events in the W isotopic composition of modern flood basalts. *Science* 352, 809-812.
177. Qin, L. and R.W. Carlson (2016) Nucleosynthetic isotope anomalies and their cosmochemical significance. *Geochemical Journal* 50, 43-65.
178. Blackburn, T., C.M.O.'D. Alexander, R.W. Carlson, L.T. Elkins-Tanton (2016) The accretion and impact history of the ordinary chondrite parent bodies. *Geochimica et Cosmochimica Acta* 200, 201-217.
179. Garcon, M., R.W. Carlson, S.B. Shirey, N.T. Arndt, M. Horan, T. Mock (2017) Erosion of Archean continents: The Sm-Nd and Lu-Hf isotopic record of Barberton sedimentary rocks. *Geochimica et Cosmochimica Acta* 206, 216-235.
180. O'Neil, J. and R.W. Carlson (2017) Building Archean cratons from Hadean crust. *Science* 355, 1199-1202.
181. Garcon, M., L. Sauzeat, R.W. Carlson, S.B. Shirey, M. Horan, M. Simon, V. Balter, M. Boyet, (2017) Nitrile, latex, neoprene and vinyl gloves: a primary source of contamination for trace element and Zn isotopic analyses in geological and biological samples. *Geostandards and Geoanalytical Research*, doi:10.1111/ggr.12161.
182. Schilling, M.E., R.W. Carlson, A. Tassara, R.V. Conceicao, G.W. Bertotto, M. Vasquez, S. Munoz, T. Jalowitsky, F. Gervasoni, D. Morata (2017) The origin of Patagonia revealed by Re-Os systematics of mantle xenoliths. *Precambrian Research* 294, 15-32.
183. Xia, J., L. Qin, J. Shen, R.W. Carlson, D.A. Ionov, T.D. Mock (2017) Chromium isotope heterogeneity in the mantle. *Earth and Planetary Science Letters* 464, 103-115.
184. de Leeuw, G.A.M., R.M. Ellam, F.M. Stuart, R.W. Carlson (2017) $^{142}\text{Nd}/^{144}\text{Nd}$ inferences on the nature and origin of the source of high $^3\text{He}/^4\text{He}$ magmas. *Earth and Planetary Science Letters* 472, 62-68.

185. Horan, M.F., R.W. Carlson, R.J. Walker, M. Jackson, M. Garcon, M. Norman (2018) Tracking Hadean processes in modern basalts. *Earth and Planetary Sciences* 484, 184-191.
186. Garcon, M., M. Boyet, R.W. Carlson, M.F. Horan, D. Auclair, T.D. Mock (2017) Factors influencing isotope ratio precision measurements by thermal ionization mass spectrometry, the Nd example. *Chemical Geology* 476, 493-514.
187. Peters, B.J., R.W. Carlson, J.M.D. Day, M.F. Horan (2018) Hadean silicate differentiation preserved in the Reunion hotspot source. *Nature*, to be published March 1.
188. Reimink, J. T. Chacko, R.W. Carlson, S.B. Shirey, J. Liu, R.A. Stern, D.G. Pearson, L.M. Heaman (2017) Hadean-Eoarchean crustal evolution in the Acasta Gneiss Complex: Nd and W extinct radionuclide and zircon oxygen three-isotope compositions. *Earth and Planetary Science Letters*, in revision.
189. Carlson, R.W., R. Brassler, Q.-Z. Yin, M. Fischer-Godde, L. Qin (2017) Feedstocks of the terrestrial planets. *Space Science Reviews*, submitted, December.
190. Carlson, R.W., T.L. Grove, J. Donnelly-Nolan (2018) Origin of primitive tholeiitic and calc-alkaline basalts at Newberry Volcano, Oregon. *Geochemistry, Geophysics, Geosystems*, submitted, January.
191. Ionov, D.A., L.S. Doucet, R.W. Carlson, A.V. Golovin, O.B. Oleinkov (2018) Lost in interpretation: facts and misconceptions about the mantle of the Siberian craton. A comment on: "Composition of the lithospheric mantle in the northern part of the Siberian craton: Constraints from peridotites in the Obnazhennaya kimberlite by Sun et al., (2017). *Lithos*, submitted, February.

Commentary

1. Magma oceanography and the early evolution of the earth, R. W. Carlson, *Nature* **305**, 390, 1983.
2. A layer-cake or plum pudding mantle? R. W. Carlson, *Nature* **334**, 380-381, 1988.
3. The endmember stew, R. W. Carlson, *Nature* **348**, 17-18, 1990.
4. Flood basalts: Melting a wet source, R. W. Carlson, *Nature* **358**, 20-21, 1992.
5. Magma composition: A matter of give and take, R.W. Carlson, *Nature* **359**, 16-17, 1992.
6. How the Earth's mantle could lie about its age. R.W. Carlson, *Nature* **362**, 701-702, 1993.
7. Continental mantle: A crustal life preserver, R.W. Carlson, *Nature* **376**, 116-117, 1995.
8. Where has all the old crust gone? R.W. Carlson, *Nature* **379**, 581-582, 1996.
9. Do continents part passively, or do they need a shove? R.W. Carlson, *Science* **278**, 240-241, 1997.
10. A conduit to the core, R.W. Carlson, *Nature* **394**, 11-12, 1998.
11. Osmium remembers, R.W. Carlson, *Science* **296**, 475-476, 2002.
12. President's message, R.W. Carlson, *Elements* **8**, 69, 2012.
13. Why join a professional society?, R.W. Carlson, *Elements* **8**, 225, 2012.
14. The international nature of geochemistry, R.W. Carlson, *Elements* **8**, 310, 2012.
15. Geochemical curiosity, R.W. Carlson, *Elements* **8**, 386, 2012.
16. Who belongs to the Geochemical Society, R.W. Carlson, *Elements* **8**, 470, 2012.
17. Paper, electrons and geochemical data, R.W. Carlson, *Elements* **9**, 68, 2013.
18. New directions, R.W. Carlson, *Elements* **9**, 136, 2013.
19. Elevating geochemistry, R.W. Carlson, *Elements* **9**, 224, 2013.
20. Geochemical cooperation, R.W. Carlson, *Elements* **9**, 298, 2013.
21. Diversity, R.W. Carlson, *Elements* **9**, 387, 2013.
22. A final corner, R.W. Carlson, *Elements* **9**, 462, 2013.
23. A new recipe for Earth formation, *Nature* **520**, 299-300, 2015
24. Earth's building blocks, *Nature* **541**, 468-470, 2017.

Extended Abstracts and Reviews:

1. Sm-Nd systematics of the Serra de Mage eucrite, G. W. Lugmair, R.W. Carlson, and N. B. Scheinin, *Meteoritics* **12**, 300-301, 1977.
2. Sm-Nd systematics of KREEP, G. W. Lugmair and R. W. Carlson, *Lunar and Planetary Science* **IX**, Lunar and Planetary Institute, Houston, 669-671, 1978.
3. O meteorito Serra De Mage: Origem e historia de um "cumulate" de norito anortositico, K. Keil, M. Prinz, C. B. Gomes, G. E. Harlow, G. W. Lugmair, N. B. Scheinin, R. W. Carlson, E. Jarosewich, R. A. Schmitt, M. -S. Ma, C. E. Nehru, J. L. Berkley, G. J. Taylor, and A. Barreto, Geological Society of Brazil, 1978.

4. Implications for the structure of chemical heterogeneity in the mantle from Nd and Sr isotopic variations, R. W. Carlson, J. D. Macdougall, and G. W. Lugmair, *Geological Survey Open-File Report 78-701*, 58-60, 1978.
5. Sm-Nd study of pristine KREEP basalt 15386, R. W. Carlson and G. W. Lugmair, *Lunar and Planetary Science X*, Lunar and Planetary Institute, Houston, 178-180, 1979.
6. Early lunar history recorded by norite 78236, R. W. Carlson and G. W. Lugmair, in *Papers Presented to the Conference on the Lunar Highlands Crust*, The Lunar and Planetary Science Institute, Houston, 9-11, 1979.
7. 78236, A primary, but partially senile, lunar norite, R. W. Carlson and G. W. Lugmair, *Lunar and Planetary Science XI*, The Lunar and Planetary Science Institute, Houston, 125-127, 1980.
8. Duration of lunar crustal formation, G. W. Lugmair and R. W. Carlson, Eighth National Symposium on Isotope Geochemistry, Moscow, 1980.
9. Origin of continental flood basalts: Columbia River Province, R. W. Carlson and G. W. Lugmair, Eighth National Symposium on Isotope Geochemistry, Moscow, 1980.
10. Sm-Nd age of lunar ilmenite 67667, R. W. Carlson, T. Tanaka, and G. W. Lugmair, *Lunar and Planetary Sci. XII*, The Lunar and Planetary Science Institute, Houston, 126-128, 1981.
11. Review of *The Continental Crust and Its Mineral Deposits*, (D. Strangway, ed.), *Science* **212**, 1020, 1984.
12. Nd isotopic evidence for heterogeneity in the sources of eastern Chinese basalts, X. Zhou and R. W. Carlson, abstracts for the 5th International Conference on Geochronology, Cosmochronology and Isotope Geology, Nikko, Japan, 1982.
13. Sm-Nd geochronology of Archean gneisses from the southwestern Big Horn Mountains, Wyoming, R. W. Carlson and D. Diez de Medina, *Carnegie Inst. Washington Year Book* **81**, 536-539, 1982.
14. Chemical and isotopic characteristics of late Cenozoic volcanism in the northwestern U.S.A., W. K. Hart and R. W. Carlson, *Carnegie Inst. Washington Year Book* **81**, 501-505, 1982.
15. Nd-Sr isotopic study of the Setouchi volcanic rocks, Japan: A clue to the origin of orogenic andesite, K. Ishizaka and R. W. Carlson, *Carnegie Inst. Washington Year Book* **81**, 489-494, 1982.
16. Rb-Sr and Nd isotope studies of submarine hydrothermal Mn-deposits of the Franciscan Assemblage, California, M. S. Chyi, R. W. Carlson, and D. A. Crerar, *Carnegie Inst. Washington Year Book* **81**, 470-473, 1982.
17. Isotopic evidence for temporal variability of mantle characteristics beneath the North China Fault Block, X. Zhou and R. W. Carlson, *Carnegie Inst. Washington Year Book* **81**, 505-508, 1982.
18. Chronologic and isotopic systematics of lunar highland rocks, R. W. Carlson, in *Workshop on Pristine Highlands Rocks and the Early History of the Moon*, J. Longhi and G. Ryder eds., LPI Tech. Rpt. 83-02, Lunar and Planetary Institute, Houston, 31-33, 1982.
19. Sm-Nd age of the ancient gneiss complex, Swaziland, southern Africa, R. W. Carlson, *Carnegie Inst. Washington Year Book* **82**, 550-554, 1983.
20. Geochemical study of the Steens Mountain flood basalt, R. W. Carlson and W. K. Hart, *Carnegie Inst. Washington Year Book* **82**, 475-481, 1983.
21. Sm-Nd isotopic systematics of the ancient gneiss complex, southern Africa, R. W. Carlson, D. R. Hunter, and F. Barker, in *Workshop on a Cross Section of Archean Crust*, L. D. Ashwal and K. D. Card eds., 24-27, LPI Tech. Rpt. 83-03, Lunar and Planetary Institute, Houston, 1983.
22. Isotopic and petrologic investigation of the eucrites Cachari, Moore County, and Stannern, F. Tera, R. W. Carlson, and N. Z. Boctor, *Lunar and Planetary Science XVIII*, The Lunar and Planetary Institute, Houston, 1004-1005, 1987.
23. Review of *Principles of Isotope Geology* by Gunter Faure, *Geochim. Cosmochim. Acta* **51**, 1779, 1987.
24. Radiometric geochronology of the eucrites Nuevo Laredo and Bereba, R. W. Carlson, F. Tera, and N. Z. Boctor, *Lunar and Planetary Science XIV*, The Lunar and Planetary Institute, Houston, 166-167, 1988.
25. Magma oceans, ocean ridges, and continental crust: Relative roles in mantle differentiation, R. W. Carlson and S. B. Shirey, in *Abstracts for the Conference on The Origin of the Earth*, Lunar and Planetary Institute, Houston, 13-14, 1988.
26. Re-Os isotopic constraints on the chemical evolution of the Archean mantle, R. J. Walker, S. B. Shirey, R. W. Carlson and J. W. Morgan, in *Abstracts for the Workshop on the Archean Mantle*, Lunar and Planetary Institute, Houston, 1989.

27. Magma evolution in the Stillwater Complex, Montana: REE, Sr, and Nd isotopic evidence for Archean lithospheric interaction, D.D. Lambert, R.J. Walker, S.B. Shirey, R.W. Carlson, and J.W. Morgan, in *Abstracts for the Workshop on the Archean Mantle*, Lunar and Planetary Institute, Houston, 1989.
28. The Pb and Nd isotopic evolution of the Archean mantle, S.B. Shirey and R.W. Carlson, in *Abstracts for the Workshop on the Archean Mantle*, Lunar and Planetary Institute, Houston, 1989.
29. Contrasting Pb-Pb ages of the cumulate and non-cumulate eucrites, F. Tera, R.W. Carlson and N.Z. Boctor, *Lunar and Planetary Science XX*, 1111-1112, 1989.
30. Re-Os and Sm-Nd isotope geochemistry of the Stillwater Complex, Montana: The role of crustal vs. lithospheric sources in layered intrusions, Conf. on the Archean Crust, Perth, 1990.
31. Rhenium-Osmium isotope systematics in southern African and Siberian peridotite xenoliths and the evolution of subcontinental lithospheric mantle, D. G. Pearson, S. B. Shirey, R.W. Carlson, F. R. Boyd, P. H. Nixon, N.P. Pokhilenko and L. Brown, 5th Int. Kimberlite Conf. Sao Paulo, 1991.
32. Mantle xenoliths in potassic magmas from Montana: Sr, Nd and Os isotopic constraints on the evolution of the Wyoming Craton lithosphere, A.J. Irving and R.W. Carlson, 5th Int. Kimberlite Conf. Sao Paulo, 1991.
33. The Re-Os isotopic system: New applications to geochemistry at DTM, S.B. Shirey and R.W. Carlson, *Carnegie Inst. Washington Year Book* 90, 58-71, 1991.
34. The petrology and geochemistry of coastal dikes from Sao Paulo State, Brazil: Implications for variable lithospheric contributions to alkaline magmas from the western margin of the South Atlantic, G. Garda, S. Esperanca and R.W. Carlson, International Symposium on Physics and Chemistry of the Upper Mantle, Sao Paulo, August, 1994.
35. Re-Os isotope evidence for late Archean stabilization of a thick lithospheric mantle keel beneath the Kirkland Lake area, Superior Province, Canada. Further evidence for long-term crust-mantle coupling, D.G. Pearson, H.O.A. Meyer, F.R. Boyd, S.B. Shirey and R.W. Carlson, 6th Int. Kimberlite Conf. Novosibirsk, 1995.
36. IAVCEI at the 21st IUGG General Assembly, R.W. Carlson, EOS 76, 453, 1995.
37. Lead isotope systematics of leached meteoritic minerals, F. Tera, R.W. Carlson and N.Z. Boctor, *Lunar and Planetary Science XXVII*, 1996.
38. Reexamining the U-Pb chronometry of the early solar system, F. Tera and R.W. Carlson, *Lunar and Planetary Science XXVIII*, 1997.
39. Isotopic and petrological constraints on crustal evolution of the southern edge of the Sao Francisco craton: Evidence from garnet granulite xenoliths in a mesozoic lamprophyre from Minas Gerais State, Brazil, S. Esperanca, R.W. Carlson and D.P. Svisero, South American Symposium on Isotope Geology, 1997.
40. Single crystal Re-Os isotopic dating of sulphide inclusions from a single Siberian diamond. D.G. Pearson, S.B. Shirey, G.P. Bulanova, R.W. Carlson and H.J. Milledge, Goldschmidt Conf. Tucson, 1997.
41. Re-Os systematics of kimberlite megacryst inclusions: Implications for the source of kimberlitic magmas. R.W. Carlson and D.R. Bell, Goldschmidt Conf. Tucson, 1997.
42. Peridotite xenoliths from the Williams kimberlite, Montana: Implications for delamination of the Wyoming craton lithosphere. R.W. Carlson, A.J. Irving, and B.C. Hearn Jr., 7th Int. Kimberlite Conf., 132-134, 1998.
43. Re-Os isotope systematics of diamond-bearing eclogites and peridotites from Newlands kimberlite. A.H. Menzies, S.B. Shirey, R.W. Carlson and J.J. Gurney, 7th Int. Kimberlite Conf., 579-581, 1998.
44. Regional age variation of the southern African mantle: Significance for models of lithospheric mantle formation. R.W. Carlson, D.G. Pearson, F.R. Boyd, S.B. Shirey, G. Irvine, A.H. Menzies and J.J. Gurney, 7th Int. Kimberlite Conf., 135-137, 1998.
45. Re-Os isotope systematics of eclogites from Roberts Victor: Implications for diamond growth and Archean tectonic processes. S.B. Shirey, R.W. Carlson, J.J. Gurney and L. van Heerden, 7th Int. Kimberlite Conf., 808-810, 1998.
46. Lithospheric mantle growth around cratons: a Re-Os isotope study of peridotite xenoliths from East Griqualand. D.G. Pearson, R.W. Carlson, F.R. Boyd, S.B. Shirey and P.H. Nixon, 7th Int. Kimberlite Conf., 658-659, 1998.

47. The age and origin of eastern Australian diamonds: Re-Os isotope evidence from sulfide inclusions in two diamonds from Wellington, New South Wales. D.G. Pearson, R.M. Davies, S.B. Shirey, R.W. Carlson and W.I. Griffin, 7th Int. Kimberlite Conf., 664-666, 1998.
48. Dating diamonds using the Re-Os isotope technique: a study of sulfide inclusions in Siberian diamonds. D.G. Pearson, S.B. Shirey, G.P. Bulanova, R.W. Carlson and H.J. Milledge, 7th Int. Kimberlite Conf., 661-663, 1998.
49. Platinum group element constraints on the origin of cratonic peridotites: A study of Kimberley peridotite xenoliths. G.J. Irvine, D.G. Pearson, R.W. Carlson and F.R. Boyd, 7th Int. Kimberlite Conf., 346-348, 1998.
50. Mg isotope variation in bulk meteorites and chondrules, L.-A. Nguyen, C.M.O'D. Alexander, R.W. Carlson, *Lunar Planet. Sci.* 31, 2000.
51. The timing of core formation and volatile depletion in solar system objects from high-precision ^{107}Pd - ^{107}Ag isotope systematics. E.H. Hauri, R.W. Carlson and J. Bauer, *Lunar Planet. Sci.* 31, 2000.
52. Silver isotope fractionation in chondrites, M. Schonbachler, R.W. Carlson and E.H. Hauri, *Lunar Planet. Sci.*, 2006.
53. Early planetary differentiation: unmixing and remixing planetary interiors, R.W. Carlson and M. Boyet, Early Planetary Differentiation Workshop, Dec. 2006.
53. Nucleosynthetic Os isotopic anomalies in carbonaceous chondrites, T. Yokoyama, V.K. Rai, C.M. O'D. Alexander, R.S. Lewis, R.W. Carlson, S.B. Shirey, M.H. Thiemens and R.J. Walker, *Lunar Planet. Sci.*, 2007.
54. The distribution of nucleosynthetic barium and chromium isotope anomalies in meteoritic samples, L. Qin, C.M. O'D. Alexander, R.W. Carlson and M. Horan, *Lunar Planet. Sci.*, 2008
55. Spatial differences and chronology of metasomatism in depleted mantle xenoliths beneath Kimberley, South Africa, T. Rehfeldt, D.E. Jacob, S.F. Foley, and R.W. Carlson, 9th Int. Kimb. Conf., Frankfurt, 2008.
56. Extremely depleted lithospheric mantle and diamonds beneath the southern Zimbabwe Craton, C.B. Smith, D.G. Pearson, G.P. Bulanova, A.D. Beard, R.W. Carlson, K. Sims, L. Chimuka, and E. Muchemwa, 9th Int. Kimb. Conf., Frankfurt, 2008.
57. Understanding various contributions to the chromium isotopic composition of meteorites and their implications for Mn-Cr chronology, L. Qin, C.M.O'D. Alexander, R.W. Carlson and M. Horan, *Lunar Planet. Sci.* 1672, 2009.
58. Extreme uncorrelated ^{54}Cr , ^{17}O and ^{18}O enrichments in sub-micron Orgueil grains, L.R. Nittler, L. Qin, C.M.O'D. Alexander, J. Wang, R.W. Carlson and F.J. Stadermann, *Lunar Planet. Sci.* 2010.
59. Cosmogenic stable isotope effects on tungsten, osmium and chromium in the Carbo iron meteorite, L. Qin, N. Dauphas, M.F. Horan, R.W. Carlson, C.M.O'D. Alexander, I. Leya and J. Masarik, *Lunar and Planet. Sci.* 2010.
60. Ba, Nd and Sm isotope anomalies in Murchison leaches: Distinct carriers of s- and r-process nucleosynthetic components, R.W. Carlson, L. Qin and C.M. O'D. Alexander, *Lunar and Planet. Sci.* 41, 2415, 2010.
61. Chromium isotopic composition of Almahata Sitta, L. Qin, D. Rumble, C.M. O'D. Alexander, R.W. Carlson, P. Jenniskens, and M.H. Shaddad, *Lunar and Planet. Sci.* 41, 1910, 2010.
62. Geochemical and isotopic characteristics of the Nuvvuagittuq greenstone belt: Implications for the formation and composition of Earth's early crust, J. O'Neil, R.W. Carlson and D. Francis, 5IAS Meeting, Perth, submitted, February, 2010.
63. The age of lunar ferroan anorthosite 60025 with implications for the interpretation of lunar chronology and the magma ocean model, L. Borg, J. Connelly, M. Boyet and R.W. Carlson, *Lunar Planet. Sci.* 42, 2011.
64. Manganese-chromium isotope systematics of ordinary chondrite Forest Vale (H4) and enstatite chondrite Indarch (EH4), G.E. Moseley, M. Schonbachler, C. Davies, M.F. Horan, A. Busefield and R.W. Carlson, *Lunar Planet. Sci.* 42, 2011.
65. Palladium-silver isotopic systematics in Muonionalusta and fractionation in the IVA iron meteorite parent body, M.F. Horan, R.W. Carlson, C.M.O'D. Alexander and J. Blichert-Toft, *Lunar Planet. Sci.* 42, 2011.

66. $^{147,146}\text{Sm}$ - $^{143,142}\text{Nd}$ and ^{87}Rb - ^{87}Sr systematics of the angrites Northwest Africa 4590, Northwest Africa 4801 and D'Orbigny, M.E. Sanborn, R.W. Carlson and M. Wadhwa, *Lunar Planet. Sci.* 42, 2011.
67. Internal Lu-Hf isochrons for the quenched and plutonic angrites and their chronological implications, M.E. Sanborn, R.W. Carlson and M. Wadhwa, *Lunar Planet. Sci.* 43, abst. 2039, 2012.
68. An evaluation of the palladium-silver isotope systematics in the oldest differentiated planetesimal: Beyond shock, M.F. Horan, R.W. Carlson and J. Blichert-Toft, *Lunar Planet. Sci.* 43, abst. 1116, 2012.
69. Birmingham, K.R., K. Mezger, E.E. Scherer, R. Carlson, M. Horan, D. Upadhyay, T. Magna, A. Pack (2013) Barium isotope abundances in meteorites: implications for early Solar system evolution. *Lunar Planet. Sci.* 44.
70. Borg, L., J. Connelly, W. Cassata, A. Gaffney, R. Carlson, D. Papanastassiou, E. Ramon, R. Lindval, M. Bizarro (2013) Evidence for widespread magmatic activity at 4.36 Ga in the lunar highlands from young ages determined for troctolite 76535. *Lunar Planet. Sci.* 44.
71. Carlson, R.W., L. Borg, A. Gaffney, M. Boyet (2013) Rb-Sr, Sm-Nd and Lu-Hf isotope systematics of norite 77215: Refining the age and duration of lunar crust formation. *Lunar Planet. Sci.* 44.
72. Qin, L., J. Xia, R.W. Carlson, Q. Zhang (2015) Chromium stable isotope composition of meteorites. *Lunar Planet. Sci.* 45.
73. Xia, J., L. Qin, R.W. Carlson, M.F. Horan, T.D. Mock, D.A. Ionov, S. Huang, R.T. Helz (2015) Cr isotopic fractionation in basalts and mantle xenoliths. *Lunar Planet. Sci.* 45.
74. Hauri, E.H., C.M.O'D. Alexander, R.W. Carlson, G. Cody, Y. Fei, L. Nittler, A. Shahar, S.B. Shirey, A. Steele (2016) Laboratory capabilities and facility experience at the Carnegie Institution of Washington. *Lunar Planet. Sci.* 46.

Short Abstracts:

1. Sm-Nd constraints on the evolution of oceanic rocks, R. W. Carlson, J. D. Macdougall, and G. W. Lugmair, *EOS* **58**, 533-534 1977.
2. Differential Sm/Nd evolution in oceanic basalts, R. W. Carlson, J. D. Macdougall, and G. W. Lugmair, *EOS* **58**, 1250, 1977.
3. Nd and Sr isotopic variation in basalts of the Columbia River Province, R. W. Carlson, J. D. Macdougall, and G. W. Lugmair, *EOS* **60**, 407, 1979.
4. Mantle differentiation as recorded by ultramafic nodules: oceanic mantle beneath continental crust, H. - G. Stosch, E. Jagoutz, R. W. Carlson, and G. W. Lugmair, *EOS* **60**, 971, 1979.
5. Isotopic and chemical features of northwest U.S. basaltic volcanism, R. W. Carlson, W. K. Hart, and R. J. Stern, *EOS* **62**, 431, 1981.
6. Isotopic imprints of global processes in the Archean, F. Tera and R. W. Carlson, *EOS* **62**, 420, 1981.
7. Determining factors in the nature and degree of magma wallrock interaction, R. W. Carlson, *EOS* **62**, 1079, 1982.
8. Nd isotopic evidence for mantle heterogeneity beneath eastern China, X. Zhou and R. W. Carlson, *EOS* **63**, 461, 1982.
9. Geochemical and isotopic inferences on the nature of the crust and mantle: northwestern, U.S.A., W. K. Hart and R. W. Carlson, *Geol. Soc. Amer. Abst. with Prog* **14**, 509, 1982.
10. Rb-Sr and Nd isotopic study of submarine hydrothermal Mn-deposits from the Franciscan Assemblage, M. S. Chyi, R. W. Carlson, and D. A. Crerar, *Geol. Soc. Amer. Abst. with Prog* **14**, 463, 1982.
11. Areal extent and isotope geochemistry of the Steens Mountain flood basalt, southeastern Oregon, R. W. Carlson and W. K. Hart, *EOS* **64**, 338, 1983.
12. Isotopic characteristics of eastern Chinese Cenozoic volcanics, R. W. Carlson and X. Zhou, *Geol. Soc. Amer. Abst. with Prog.* **15**, 539, 1983.
13. Oxygen, lead isotope and trace element study of submarine hydrothermal Mn-deposits of the Franciscan Assemblage, Ca., M. S. Chyi, D. A. Crerar, R. Stallard, and R. W. Carlson, *Geol. Soc. Amer. Abst. with Prog.* **15**, 544, 1983.
14. Regional chemical and isotopic mapping and the volcano/tectonic evolution of the northwestern U.S., R. W. Carlson and W. K. Hart, *Geol. Soc. Am. Abst. with Prog.* **16**, 463, 1984.
15. Regional extent and significance of Steens Mountain type basalts in the northern Great Basin, R. W. Carlson and W. K. Hart, *Geol. Soc. Amer. Abst. with Prog. Rocky Mtn. Sec.*, 212, 1985.
16. Geochronologic investigation of the Archean ancient gneiss complex, Swaziland, R. W. Carlson, D. R. Hunter, and F. Barker, *EOS* **66**, 419, 1985.

17. Nd isotope and REE constraints on enrichment processes in the Archean Superior Province mantle, S. B. Shirey and R. W. Carlson, *EOS* **66**, 419, 1985.
18. Ancient enriched mantle sources for magmatism in the Crazy Mountains, Montana, F. O. Dudas, R. W. Carlson, and D. H. Eggler, *EOS* **66**, 414, 1985.
19. Elemental and isotopic evidence bearing on the volcano/tectonic evolution of late Cenozoic basalts from the northwestern United States, W. K. Hart and R. W. Carlson, *IAVCEI*, 1985.
20. Lead isotopic data for igneous rocks from the Crazy Mountains, Montana: Implications for mantle evolution in the northwestern United States, F. O. Dudas, R. W. Carlson, and D. H. Eggler, *Geol. Soc. Amer. Abst. with Prog.* **17**, 568, 1985.
21. Formation and evolution of the Archean subcontinental mantle beneath the northwestern U.S., R. W. Carlson, F. O. Dudas, J. K. Meen, and D. H. Eggler, *EOS* **66**, 1109, 1985.
22. The Nondweni greenstones: A second(?) episode of ultramafic volcanism in the Kaapvaal Craton, A. H. Wilson, R. W. Carlson, J. A. Versveld, and D. R. Hunter, *EOS* **66**, 1118-1119, 1985.
23. Large Ion Lithophile (LIL) element enrichment of the Archean mantle accompanying formation of the continental lithosphere, S. B. Shirey and R. W. Carlson, *EOS* **66**, 1110-1111, 1985.
24. Pb and Nd isotopic constraints on the timing of mantle enrichment in central Montana, F. O. Dudas, R. W. Carlson, and D. H. Eggler, *EOS* **66**, 1109, 1985.
25. Isotopic characteristics of the lower crust under central Arizona: Evidence from xenoliths in the Camp Creek high-K latites, S. Esperança, R. W. Carlson, and S. B. Shirey, *EOS* **66**, 1110, 1985.
26. Multi-stage enrichment of ancient subcontinental mantle, Crazy Mts. Mt., F. O. Dudas, R. W. Carlson, and D. H. Eggler, *Geol. Assoc. Canada Ann. Meeting*, 1986.
27. Pb and Nd isotope evolution of the Archean Superior Province: Mantle enrichment and present subcontinental mantle reservoirs, S. B. Shirey and R. W. Carlson, *Terra Cognita* **6**, 237, 1986.
28. Nd isotope evidence for the evolution of metavolcanic rocks from the Archean block of Greenland and Labrador, O. Stecher, R. W. Carlson, S. B. Shirey, D. Bridgwater, and T. Nielsen, *Terra Cognita* **6**, 236, 1986.
29. Geochronologic studies of the Archean Nondweni supracrustal sequence, South Africa, A. H. Wilson and R. W. Carlson, *Terra Cognita* **6**, 147, 1986.
30. Isotopic compositions and evolution of intermarginal subduction-related andesites and basalts, northwestern U.S.A., M. D. Norman, W. P. Leeman, H. P. West, and R. W. Carlson, *Terra Cognita* **6**, 198, 1986.
31. Sr and Nd isotopes and the petrological evolution of post-glacial lavas from the Reykjanes Peninsula, Iceland, O. Stecher, R. W. Carlson, and S. B. Shirey, *EOS* **67**, 413, 1986.
32. Petrogenesis of the Pueblo Mountains basalts of southeastern Oregon, W. K. Hart, S. A. Mosher, and R. W. Carlson, *Geol. Soc. Amer. Abst. with Prog.* **19**, 387, 1987.
33. On the cause of Columbia River Basalt volcanism, R. W. Carlson and W. K. Hart, *Geol. Soc. Amer. Abst. with Prog.* **19**, 365, 1987.
34. Pb and Nd isotope evolution of the Archean crust and mantle, S. B. Shirey and R. W. Carlson, *Terra Cognita* **7**, 272, 1987.
35. Sm-Nd systematics of a Stillwater basal norite dike: Implications for Stillwater magma(s), H. A. Snyder, J. Longhi, and R. W. Carlson, *EOS* **68**, 429, 1987.
36. Petrologic and isotopic investigation of carbonatite from the Jacupiranga alkaline complex, Brazil, N. Z. Boctor, F. Tera, and R. W. Carlson, *EOS* **68**, 457, 1987.
37. Just how old are the cumulate eucrites?, F. Tera, R. W. Carlson, and N. Z. Boctor, *Meteoritics*, 1987.
38. Petrology and shock metamorphism of the monomict eucrites Cachari and Stannern, N. Z. Boctor, R. W. Carlson, and F. Tera, *Meteoritics*, 1987.
39. Penetrative convection: Deep slabs in a chemically stratified mantle, P. G. Silver, R. W. Carlson, and P. Olson, *EOS* **68**, 1500, 1987.
40. Sr, Nd, Os, and Pb isotope investigation of high- and low-temperature mantle xenoliths from southern Africa, R. W. Carlson, S. B. Shirey, R. J. Walker, F. Tera, and F. R. Boyd, *EOS* **69**, 502, 1988.
41. Incompatible element enriched and depleted reservoirs in the Earth: The possible importance of the lower mantle, R. W. Carlson and P. G. Silver, *EOS* **69**, 494, 1988.
42. Penetrative convection: Deep slabs in a chemically stratified mantle, P. G. Silver, R. W. Carlson, and P. Olsen, *EOS* **69**, 489, 1988.
43. Characterization of the calc-alkaline to tholeiitic transition in the northern Basin and Range, Nevada, W. K. Hart and R. W. Carlson, *Geol. Soc. Amer. Abst. with Prog.* **20**, A315, 1988.

44. Pb and Nd isotopic constraints on crustal evolution in the southern Superior Province and inferences for a heterogeneous Archean mantle, S.B. Shirey and R. W. Carlson, *Geol. Soc. Amer. Abst. with Prog.* **20**, A137, 1988.
45. Isotopic evidence for the Dupal anomaly in post-spreading magmas from the South China Basin, Kan Tu, M.F.J. Flower, and R.W. Carlson, *European Assoc. Geochem.: Int. Cong. Geochem. Cosmochem.* 1988.
46. Nd isotopes in Proterozoic iron formations: Evidence for mixed-age provenance and depositional variability, D.C. Gerlach, S.B. Shirey and R.W. Carlson, *EOS* **69**, 1515, 1988.
47. Os, Sr, Pb, and Nd isotope systematics of the sub-Kaapvaal craton mantle: Implications for its depletion/enrichment history from kimberlites and peridotite xenoliths, R.J. Walker, R.W. Carlson, S.B. Shirey, and F.R. Boyd, *EOS* **69**, 1516, 1988.
48. Re-Os isotopes and chemical evolution of the mantle, R.J. Walker, S.B. Shirey, R.W. Carlson and J.D. Fassett, *Abstr. 28th Int. Geol. Congress* **3**, 316, 1989.
49. Penetrative convection: Deep slabs in chemically stratified mantle, P.G. Silver, R.W. Carlson and P. Olson, *Abstr. 28th Int. Geol. Congress* **3**, 114, 1989.
50. Lead isotopic data for Cenozoic basalts from Eastern China: Evidence for cratonic and circum-cratonic mantle domains, K. Tu, M.F.J. Flower, G. Xie, R.W. Carlson, J. Wang, and M. Zhang, *Abstr. 28th Int. Geol. Congress* **3**, 260-261, 1989.
51. Decoupled isotope and magmaphile element enrichment in the South China Basin Magmas, K. Tu, M.F.J. Flower, G. Xie, and R.W. Carlson, *International Symposium: Geology and Geophysics of the South China Sea*, Guangzhou, P.R.C., 1989.
52. Arc -- Back-arc boundary controls on the composition of Cenozoic mafic lavas in the northwestern U.S., R.W. Carlson and W.K. Hart, *New Mexico Bur. Mines and Mineral Resources Bull.* **131**, 43, 1989.
53. Petrology of vitric and basaltic clasts from the Bouvante eucrite, N.Z. Boctor, R.W. Carlson and F. Tera, *Meteoritics*, 1989.
54. Petrologic and Pb isotope investigations of Binda eucrite, N.Z. Boctor, F. Tera and R.W. Carlson, *Meteoritics*, 1989.
55. A multi-detector resonance ionization mass spectrometer for Re-Os isotopic analysis, L. Brown, S.B. Shirey and R.W. Carlson, *V.M. Goldschmidt Conference 1990*, 33, 1989.
56. Os and Nd isotope geochemistry of the Stillwater Complex, Montana: Evidence for Archean crustal recycling, D.D. Lambert, S.B. Shirey, R.W. Carlson, R.J. Walker and J.W. Morgan, *V.M. Goldschmidt Conference 1990*, 59, 1989.
57. Endogenous DUPAL mantle beneath the South China Basin, M.F.J. Flower, K. Tu, M. Zhang and R.W. Carlson, *V.M. Goldschmidt Conference 1990*, 46, 1989.
58. Westward migration of calc-alkaline basaltic volcanism and the nature of the Cascade - Basin and Range boundary, R. W. Carlson and W. K. Hart, *EOS* **71**, 1607, 1990.
59. Possible origin of widespread Cretaceous volcanism in the Pacific: Constraints from Sr, Nd, and Pb isotope geochemistry of Nauru Basin tholeiites, P. R. Castillo and R. W. Carlson, *EOS* **71**, 1667, 1990.
60. Nd and Pb isotopic and trace element evidence for the origin of early Keweenaw lavas from an enriched lithospheric mantle source, K. W. Klewin, J. H. Berg, S. B. Shirey, and R. W. Carlson, *EOS* **71**, 1670, 1990.
61. Continental flood basalts: sample of the lithosphere or deep mantle?, R. W. Carlson, *ICOG 7, Geol. Soc. Australia Abst.* **27**, 15, 1990.
62. A multi-detector resonance ionization mass spectrometer for Re-Os isotopic studies of crust-mantle evolution, S. B. Shirey, R. W. Carlson, L. Brown and D. D. Lambert, *ICOG 7, Geol. Soc. Australia Abst.* **27**, 92, 1990.
63. Sm-Nd and U-Th-Pb isotopic evidence for the southward extent of early Archaean continental crust in northern Labrador, L. Schiotte, S. B. Shirey, R. W. Carlson, B. T. Hansen, S. Noble and D. Bridgwater, *ICOG 7, Geol. Soc. Australia Abst.* **27**, 90, 1990.
64. Re-Os and Sm-Nd isotopic systematics in basalts and lamproites from the southern U.S. midcontinent: Implications for the evolution of the subcontinental lithospheric mantle, D. D. Lambert, S. B. Shirey, R. W. Carlson, L. Brown, B. L. Weaver, M. C. Gilbert and S. C. Bergman, *Kimberlite Conf.*, Sao Paulo, 1991.
66. The mechanism and chronology of early lunar differentiation, R. W. Carlson, *EOS* **72**, **179**, 1991.

67. Rhenium-Osmium isotope systematics in southern African and Siberian peridotite xenoliths, D.G. Pearson, S.B. Shirey, R.W. Carlson, F.R. Boyd, L. Brown, P.H. Nixon and N.P. Pokhilenko, *EOS* **72**, 318, 1991.
68. Isotopic and trace element evidence for time progressive changes in the source region of flood basalts, K.W. Klewin, J.H. Berg, S.B. Shirey and R.W. Carlson, *EOS* **72**, 280, 1991.
69. Re-Os and Sm-Nd isotopic constraints on plume-mantle lithosphere interaction: Evidence from the Keweenaw Mamainse Point Formation, Ontario, S.B. Shirey, K.W. Klewin, R.W. Carlson and L. Brown, *EOS* **72**, 280, 1991.
70. Os isotopic variations in lavas from Haleakala volcano, Maui, Hawaii: Implications for plume-lithosphere interactions, C.E. Martin, S.B. Shirey, R.W. Carlson, F.A. Frey and C.-Y. Chen, *EOS* **72**, 280, 1991.
71. Isotope systematics of cumulate eucrite EET-87520, G.W. Lugmair, S.J.G. Galer and R.W. Carlson, *Meteoritics*, 1991.
72. Reevaluation of the roles of mantle and crustal lithosphere in the generation of late Cenozoic basalts from the northwestern U.S.A., W.K. Hart and R.W. Carlson, *Geol. Soc. Amer. Abstr. with Prog.* **23**, A211, 1991.
73. Os, Sr, Nd and Pb isotopic studies of Montana mantle xenoliths: Long-term preservation of basalt-depleted, LIL element-enriched lithosphere, R.W. Carlson and A.J. Irving, *Geol. Soc. Amer. Abstr. with Prog.* **23**, A211, 1991.
74. Re-Os isotope constraints on flood basalt genesis, R.M. Ellam, R.W. Carlson and S.B. Shirey, *EOS* **72**, 579, 1991.
75. Re-Os and Sm-Nd isotopic systematics of lamproites and basalts from the southern U.S. midcontinent: Implications for the evolution of Proterozoic subcontinental lithospheric mantle, D.D. Lambert, S.B. Shirey, R.W. Carlson, B.L. Weaver, M.C. Gilbert, S.C. Bergman and R.E. Denison, *EOS* **72**, 543, 1991.
76. Re-Os and Sm-Nd isotopic constraints on the chronology of lithospheric mantle formation and enrichment events, D.G. Pearson, S.B. Shirey, R.W. Carlson, F.R. Boyd, P.H. Nixon and N.P. Pokhilenko, *EOS* **72**, 527, 1991.
77. The development of the Oregon Plateau: Perspectives from Neogene mafic to intermediate volcanism, W. K. Hart and R. W. Carlson, *Geol. Soc. Amer. Abstr. with Prog.*, in press, 1992.
78. The role of lithosphere in continental flood basalt genesis, R.W. Carlson, S. B. Shirey, D. G. Pearson, R. M. Ellam, W. K. Hart and K. W. Klewin, *EOS* **73**, 329, 1992.
79. Source of potassic and carbonatite magmas in the Rocky Boy stock, Bearpaw Mountains, Montana, S. G. Shank, R. W. Carlson and D. H. Eggler, *EOS* **73**, 339, 1992.
80. Os isotope constraints on the petrogenesis of eclogite xenoliths, D. G. Pearson, S. B. Shirey, R. W. Carlson, and L. A. Taylor, *EOS* **73**, 376, 1992.
81. Re-Os isotope evidence for the formation of ancient lithospheric mantle linked to crust building beneath southern Africa and Siberia, D.G. Pearson, S.B. Shirey, R.W. Carlson, F.R. Boyd, N.P. Pokhilenko and P.H. Nixon, *EUG VII*, 1992.
81. Re-Os evidence for complex magma-lithosphere interactions in the northwestern United States, W.K. Hart, R.W. Carlson and S.B. Shirey, *EOS* **74**, 121, 1993.
82. Differentiation history of lithospheric mantle: Os, Sr, Nd and Pb isotopic evidence from garnet peridotite xenoliths, Williams Kimberlite, Montana, A.J. Irving, R.W. Carlson and B.C. Hearn Jr., *EOS* **74**, 320, 1993.
83. The petrology and geochemistry of deep crustal granulite xenoliths in an ultrapotassic host, Minas Gerais State, Brazil, S. Esperança, R.W. Carlson, D.D. Lambert and D.P. Svisero, Lower Crustal Xenolith Workshop, Sydney, 1993.
84. Os, Sr, Nd and Pb isotopic studies of Montana mantle xenoliths: Long-term preservation of basalt-depleted, LIL element enriched lithosphere, R.W. Carlson and A.J. Irving, *IAVCEI*, 1993.
85. Application of Re-Os isotopes to the origin of Archean-Proterozoic mafic-ultramafic magmas, S.B. Shirey and R.W. Carlson, *IAVCEI*, 1993.
86. The EM-I component in the South Atlantic: Clues to its origin from isotope and trace element data for Brazilian kimberlites, R.W. Carlson, S. Esperança, D.D. Lambert and D.P. Svisero, *EOS* **74**, 633, 1993.
87. The Winnipegosis komatiites: a new komatiite belt, central Manitoba, L. Hulbert, K. Kyser, R. Carlson, M. Leshner, C. Joudrie, 1994 Minerals Colloquium, Ottawa, 1994.

88. Crustal recycling? Oceanic yes, continental barely, R.W. Carlson, EOS 75, 59, 1994.
89. Isotopic provinces in Indochina interpreted from Vietnamese Cenozoic basalts, H. Nguyen, M.F.J. Flower and R.W. Carlson, EOS 75, 369, 1994.
90. Isotopic compositions of Vietnamese basalts: Dupal plume interaction with the continental lithosphere? N. Hoang, M.F.J. Flower, R.W. Carlson, EOS 75, 736, 1994.
91. The role of magma chambers in determining the chemical and physical characteristics of flood basalts. R.W. Carlson, IUGG meeting, 1995.
92. Stabilization of the earliest lithospheric mantle: evidence from mantle xenoliths. D.G. Pearson, F.R. Boyd, R.W. Carlson and S.B. Shirey, "Earliest History of the Earth" conference, Cambridge, 1995.
93. Re-Os evidence on the source and formation age of the lower crust of central Arizona. S. Esperanca, R.W. Carlson, S.B. Shirey and D. Smith, EOS 77, 831-832, 1996.
94. Torfajökull: Radiogenic Pb End-Member of the Iceland Array and Origin of Isotopic Variation in Iceland. O. Stecher, R. W. Carlson and B. Gunnarson, EOS 77, 844, 1996.
95. Middle Miocene Lavas from the late Palaeocene-Early Eocene East Greenland Plateau Basalts. M. Storey, R W Carlson, R A Duncan, H C Larsen, L M Larsen, A K Petersen, O Stecher and C Tegner, EOS 77, 823, 1996.
96. Source characterization and crystallization age of the Great Dyke layered mafic intrusion, Zimbabwe. S.B. Mukasa, A.H. Wilson and R.W. Carlson, EOS 77, 823, 1996.
97. Eclogites as a monitor for trace element fractionation during devolatilization of subducted basaltic crust. H. Becker, R.W. Carlson and K.P. Jochum, EOS 77, 784, 1996.
98. Re-Os isotope study of sulfide diamond inclusions from S. Africa: constraints on the timing of diamond formation and lithosphere evolution. D.G. Pearson, J.W. Harris, S.B. Shirey, R.W. Carlson and F.R. Boyd, EOS 77, 816, 1996.
99. Isotopic evidence for metasomatism in mantle xenoliths from Simcoe, Washington, U.S.A.: Implications for fluid and crustal recycling in volcanic arcs. A.D. Brandon, H. Becker, R. Carlson and S. Shirey, EOS 77, 842, 1996.
100. Lead isotope time line for planetesimal and earth formation. F. Tera and R.W. Carlson, Geol. Soc. Am. Abst. Prog., 1997.
101. 1.70 Ga Sm-Nd age for a garnet granulite xenolith from a minette sill, Sweetgrass Hills, Northern Montana supports Proterozoic collision of Hearne and Wyoming cratons, A.J. Irving, S.M. Kuehner and R.W. Carlson, EOS 78, 786, 1997.
102. Sediment-derived Os in garnet pyroxenites from a Paleozoic convergent plate margin (lower Austria), H. Becker, S.B. Shirey and R.W. Carlson, EOS 78, 840, 1997.
103. Re-Os constraints on the growth of lithospheric mantle beneath southern Africa, R.W. Carlson, D.G. Pearson, S.B. Shirey and F.R. Boyd, EOS 78, 747, 1997.
104. The Sr isotope ratios of late-Pleistocene mammoths and mastodons from Florida; evidence of migration, K.A. Hoppe, P.L. Koch and R.W. Carlson, J. Vert. Paleontology 17, 53, 1997.
105. Re-Os isotopic systematics of the 3300 Ma Nondweni greenstone belt, South Africa: implications for komatiite formation at a craton edge, S.B. Shirey, A.H. Wilson and R.W. Carlson, EOS 79, S372-373, 1998.
106. Mg isotopic fractionation in Tieschitz chondrules, C.M.O'D. Alexander, T. Mock and R.W. Carlson, Meteoritics 33, A9, 1998.
107. Age structure of the lithospheric mantle beneath southern Africa., R.W. Carlson, D.G. Pearson, G. Irvine, S.B. Shirey, F.R. Boyd, A.H. Menzies and J.J. Gurney, EOS 79, 575, 1998.
108. A geochemical view of Cenozoic crustal growth in the western US, R.W. Carlson and W.K. Hart, EOS 79, 558, 1998.
109. Pb-Pb constraints on the time scale of early planetary differentiation, R.W. Carlson and F. Tera, Origin of the Earth and Moon, LPI, Monterey, 1998.
110. The deep sources of plumes: Re-Os – Pt-Os isotope and PGE systematics of high $^3\text{He}/^4\text{He}$ West Greenlans picrites, D.G. Pearson, L.-M. Larsen, R.J. Walker, S.J. Woodland, A.K. Pederson, R.W. Carlson and S.B. Shirey, Goldschmidt Conf., Boston, 1999.

111. Age of the lithospheric mantle beneath and around the Slave craton: A Re-Os isotope study of peridotite xenoliths from the Jericho and Somerset Island kimberlites, G.J. Irvine, M.G. Kopylova, R.W. Carlson, D.G. Pearson, S.B. Shirey and B.A. Kjarsgaard, Goldschmidt Conf., Boston, 1999.
112. Temperature, pressure and Re-Os age systematics of off-craton peridotite xenoliths from the Namaqua-Natal belt, western South Africa, P.E. Janney, R.W. Carlson, S.B. Shirey, D.R. Bell and A.P. leRoex, Goldschmidt Conf., Boston, 1999.
113. Re-Os and O isotopic systematics of diamondiferous and non-diamondiferous eclogites from the Roberts Victor kimberlite, South Africa, S.B. Shirey, U. Wiechert, R.W. Carlson, J.J. Gurney and L. Van Heerden, Goldschmidt Conf., Boston, 1999.
114. ^{107}Pd and the timing of terrestrial core formation, R.W. Carlson, E.H. Hauri and J. Bauer, EOS 80, F632, 1999.
115. Re-Os evidence for a mafic mantle source for mafic-alkalic magmatism in the Colorado Plateau, R.W. Carlson and G.M. Nowell, EOS 80, F1131, 1999.
116. Os isotope constraints on the sources of olivine melilitite diatremes in western South Africa: implications for the sources of group I kimberlites, P.E. Janney, R.W. Carlson and A.P. leRoex, EOS 80, F1131, 1999.
117. Re-Os systematics of sulfide inclusions in diamonds from the Orapa kimberlite, Botswana: implications for multiple generations of diamond growth, S.B. Shirey, J.W. Harris, R.W. Carlson, EOS 80, F1191, 1999.
118. Geochronological Re-Os and U-Pb constraints on the eclogite-tonalite connection in the Archean Man Shield, West Africa, M.G. Barth, R.L. Rudnick, R.W. Carlson, I. Horn, W.F. McDonough, EOS 80, F1192, 1999.
119. Lithospheric mantle evolution beneath and around cratons: Examples from Southern Africa, Siberia and the Slave craton. D.G. Pearson, G.J. Irvine, M. Kopylova, R. Carlson, S.B. Shirey, B. Kjarsgaard, Fermor meeting, 2000.
120. Chemical and age structure of the southern African lithospheric mantle: Implications for continent formation, R.W. Carlson, P.E. Janney, S.B. Shirey, F.R. Boyd, D.G. Pearson, G.J. Irvine, S.H. Richardson, A.H. Menzies and J.J. Gurney, Geol. Soc. Amer. Abstr. Prog. 32, A163, 2000.
121. Os isotopic and seismic evidence for orphaned early Proterozoic mantle beneath Phanerozoic crust in Eastern Australia, V.C. Bennett, R.W. Carlson and B.L.N. Kennett, Geol. Soc. Amer. Abstr. Prog. 32, A164, 2000.
122. Matrix-induced isotopic mass fractionation in the MC-ICPMS, R.W. Carlson, E.H. Hauri and C.M.O'D Alexander, 7th Int. Conf. Plasma Source Mass Spectrom., Durham, 2000.
123. Re-Os evidence for replacement of the original mantle lithosphere of the Archean North China craton, S. Gao, R.L. Rudnick, R.W. Carlson and W.F. McDonough, Goldschmidt Conf., 2001.
124. High precision Ag isotopic analysis by ICP and the time scale of metal-silicate fractionation in the early solar system, R.W. Carlson and E.H. Hauri, Goldschmidt Conf., 2001.
125. Silver isotope variations in the Earth as measured by multicollector ICP-MS, E.H. Hauri and R.W. Carlson, Goldschmidt Conf. 2001.
126. Source and mechanism of Archean lithosphere formation, R.W. Carlson, S.B. Shirey, F.R. Boyd, D.G. Pearson, G. Irvine, P.E. Janney, S.H. Richardson, A.H. Menzies, J.J. Gurney, EOS, Trans. AGU 82(20), Spring Meet. Suppl., Abstract V51A-04, 2001
127. Archean emplacement of eclogitic components into the lithospheric mantle during formation of the Kaapvaal-Zimbabwe cratons, S.B. Shirey, S.H. Richardson, A.M. Menzies, D.G. Pearson, J.W. Harris, R.W. Carlson, U. Wiechert, EOS, Trans. AGU 82(20), Spring Meet. Suppl., Abstract V52A-05, 2001
128. Episodic diamond formation in the Kaapvaal craton keel, S.H. Richardson, S.B. Shirey, J.W. Harris, R.W. Carlson, EOS, Trans. AGU 82(20), Spring Meet. Suppl., Abstract V52A-07, 2001
129. Re-Os age and thermal structure of off-craton lithospheric mantle in western South Africa, P.E. Janney, R.W. Carlson, S.B. Shirey, D.R. Bell, A. P. leRoex, EOS, Trans. AGU 82(20), Spring Meet. Suppl., Abstract V52A-09, 2001
130. Petrologic constraints on seismic velocity variations in the upper mantle beneath southern Africa, D.E. James, R.W. Carlson, F.R. Boyd, P.E. Janney, EOS, Trans. AGU 82(20), Spring Meet. Suppl., Abstract S61A-06, 2001.

131. Meteorite – impact melt mixing: PGE and Re-Os evidence from the Morokweng impact, South Africa, R. Hart, M. Andreoli, M. Cloete, I. McDonald, R.W. Carlson, M. Tredoux, EOS Trans. AGU 82(47), Fall Meet. Suppl., Abstract V21D-01, 2001.
132. Why do some mantle peridotites contain little osmium and iridium? H. Becker, J.-P. Lorand, R.W. Carlson, K. Haase, S.B. Shirey, R.J. Walker, EOS Trans. AGU 82(47), Fall Meet. Suppl. Abstract V21D-10, 2001.
133. Petrology and isotopic composition of orthopyroxene-bearing Nakhilite NWA998, A.J. Irving, S.M. Kuehner, D. Rumble, R.W. Carlson, A.C. Hupe and G.M. Hupe, Meteoritics and Planetary Science, submitted, April, 2002.
134. Reservoirs or recycling? R.W. Carlson, Geochim. Cosmochim. Acta, 66, A120, 2002.
134. Re-Os systematics of 3.3 Ga Nondweni-Comondale komatiites, Kaapvaal Craton, South Africa, S.B. Shirey, A.H. Wilson and R.W. Carlson, Geochim. Cosmochim. Acta, 66, A711, 2002.
135. A quick trip from dust to planets, R.W. Carlson, Geochim. Cosmochim. Acta 66, A119, 2002.
136. The Lu-Hf isotope composition of cratonic lithosphere: disequilibrium between garnet and clinopyroxene in kimberlite xenoliths, N.S.C. Simon, R.W. Carlson, D.G. Pearson and G.R. Davies, Geochim. Cosmochim. Acta, 66, A717, 2002.
137. Os and Hf isotopic constraints on the sources of olivine melilitites from western South Africa, P.E. Janney, A.P. le Roex, and R.W. Carlson, 8th Int. Kimberlite Conf. Submitted, August 2002.
138. Myth of the Dufek plume: Nd, Sr, Pb and Os isotopic and trace element data in support of a subduction origin, S.B. Mukasa, A.V. Andronikov and R.W. Carlson, Antarctic Earth Sciences Conference, Potsdam, 2003.
139. Highly siderophile element partitioning in partial melting residues: A case study in some Pyrenean harzburgites (France), A.A. Lugué, M.F. Horan, S.B. Shirey, R.W. Carlson and J.-P. Lorand, EOS Trans. AGU, submitted, 9/03.
140. The southern Kaapvaal craton: Formation and modification of continental lithospheric mantle in Archean subduction zones? Geochim. Cosmochim. Acta 68, 11S, A610.
141. Creation of a North American volcanic and plutonic rock database (NAVDAT), J.D. Walker, T. Bowers, A.F. Glazner, G.L. Farmer, R.W. Carlson, GSA Rocky Mountain and Cordilleran Section Meeting, May, 2004, Boise, Id.
142. Implementation and compatibility of a North American volcanic and plutonic rock database (NAVDAT), J.D. Walker, A.F. Glazner, T.D. Bowers, A.K. Strauss, G.L. Farmer, R.W. Carlson, R.A. Black, J.N. Grossman, AGU Fall 2002.
143. NAVDAT - A western North American volcanic and intrusive rock geochemical database, D. Walker, R. Black, A. Glazner, L. Farmer, R. Carlson, GSA 2001
144. New (U-Th)/He age constraints on the emplacement of kimberlite pipes in northeastern Kansas, T.J. Blackburn, D. Stockli, P. Berendes, R.W. Carlson and G.L. MacPherson, Geol. Soc. Amer. Abstr. With Program, 2004.
145. New search for ^{142}Nd anomaly in kimberlites and carbonatites, M. Boyet and R.W. Carlson, AGU, 2004.
146. Building the EarthChem system for advanced data management in igneous geochemistry, K. Lehnert, J.D. Walker, R.W. Carlson, A. Hofmann, B. Sarbas, AGU 2004.
147. The curious decoupling of Cenozoic magmatism and plate tectonics in western North America: A NAVDAT analysis, A.F. Glazner, G.L. Farmer, J.D. Walker, R.W. Carlson and T.D. Bowers, Geochim. Cosmochim. Acta, A137, 2005.
148. Dating mantle samples: examples from the Re-Os system in eclogites and diamonds, S.B. Shirey, M.D. Schmitz, K.J. Westerlund, S.H. Richardson, U. Wiechert, D.G. Pearson, R.W. Carlson and J.W. Harris, Geochim. Cosmochim. Acta A283, 2005.
149. Diamonds beneath an ancient continental rift: The Star kimberlite, South Africa, M.D. Schmitz, S.B. Shirey and R.W. Carlson, Geochim. Cosmochim. Acta A283, 2005.
150. A comparison of mineral and whole rock approaches to Re-Os dating of the Kaapvaal lithospheric mantle, B.P. Garden, R.W. Carlson, D.G. Pearson, S.B. Shirey and S.H. Richardson, Geochim. Cosmochim. Acta A285, 2005.
151. Time scales of chemically zoned magma chamber formation: U-series disequilibria in the Fogo trachyte deposits, Sao Miguel, Azores, D.C. Snyder, E. Widom, A.J. Pietruszka and R.W. Carlson, Geochim. Cosmochim. Acta A335, 2005.

152. The ^{226}Ra chronology and magma residence time of young lavas from Loihi Seamount, Hawaii, A.J. Pietruszka, E.H. Hauri, R.W. Carlson and M.O. Garcia, *Geochim. Cosmochim. Acta* A336, 2005.
153. Ag isotope variations in the Earth, M. Schonbachler, E.H. Hauri, R.W. Carlson and M.F. Horan, *Geochim. Cosmochim. Acta* A387, 2005.
154. New (U-Th)/He age constraints on the emplacement of kimberlite pipes in north-eastern Kansas, T. Blackburn, D. Stockli, R.W. Carlson, P. Berendson, J.D. Walker and N.D. Winters, *Geochim. Cosmochim. Acta* A859, 2005.
155. Using the NAVDAT database to better understand Cenozoic magmatism in western North America, J.D. Walker, G.L. Farmer, A.G. Glazner, R.W. Carlson and T.D. Bowers, *GSA Ann. Meeting*, 2005.
156. ^{142}Nd Evidence for early (> 4.53 Ga) global differentiation of the silicate earth, M. Boyet and R.W. Carlson, *SEDI meeting*, St. Malo, 2005.
157. New ^{146}Sm - ^{142}Nd constraints on Moon formation and early silicate planetary differentiation, M. Boyet and R.W. Carlson, *Meteoritical Society*, 2005.
158. Palladium-silver systematics of the early solar system, M. Schonbachler, R.W. Carlson and E.H. Hauri, *Meteoritical Society*, 2005.
159. On the cause of voluminous magmatism in the northwestern United States, R.W. Carlson, D.E. James, M.J. Fouch, T.L. Grove, W.K. Hart, A.L. Grunder, R.A. Duncan, G.R. Keller, S.H. Harder and C.R. Kincaid, *GSA Ann. Meeting*, 2005.
160. Compositional structure of Earth's interior: The importance of early terrestrial differentiation, M. Boyet and R.W. Carlson, *AGU Fall 2005*, V21F-04.
161. Roberts Victor Eclogites: The MacGregor legacy of Archean oceanic lithosphere subduction in craton formation, S.B. Shirey, M.D. Schmitz, U. Wiechert and R.W. Carlson, *AGU Fall 2005*, V31-F02.
162. The role of continental lithospheric mantle in Earth evolution, R.W. Carlson, S.B. Shirey and D.G. Pearson, *AGU Fall 2005*, V31-F03.
163. EarthChem: International collaboration for solid earth geochemistry in geoinformatics, J.D. Walker, K.A. Lehnert, A.W. Hofmann, B. Sarbas and R.W. Carlson, *AGU Fall 2005*, IN44A-03.
164. Fe-rich dunite xenoliths from Kimberley, South Africa: Cumulates of fractional crystallization of low-Ti Karoo basalts, T. Rehfeldt, D.E. Jacob, R.W. Carlson and S.F. Foley, *IAVCEI, China*, 2006.
165. A new geochemical model for the Earth's mantle inferred from ^{146}Sm - ^{142}Nd systematics, M. Boyet and R.W. Carlson. *EGU 2006*.
166. Evidence for early differentiation of Earth's mantle from ^{146}Sm - ^{142}Nd systematics, M. Boyet and R.W. Carlson, *AGU Spring 2006*.
167. Composition of Earth's interior: A new view, R.W. Carlson and M. Boyet, *AGU Spring 2006*.
168. The Pd-Ag chronometer and early planetary differentiation, M. Schonbachler, R.W. Carlson and E.H. Hauri, *Meteoritical Society Meeting*, Zurich, 2006.
169. The Kaapvaal Craton Project: Origin and Evolution of Continental Lithosphere, R.W. Carlson, F.R. Boyd, D.E. James, S.B. Shirey, P. Silver, S.A. Bowring, T.L. Grove and T.H. Jordan, *GSA Annual Meeting*, 2006.
170. Genesis mechanisms and the survival and destruction of continental lithospheric mantle, R.W. Carlson and S.B. Shirey, *Goldschmidt Meeting*, Melbourne, 2006.
171. Long-term consequences of early Earth differentiation, R.W. Carlson and M. Boyet, *Goldschmidt Meeting*, Melbourne, 2006.
172. Evidence for a strongly-depleted early Earth, R.W. Carlson and M. Boyet, *AGU Fall 2006*.
173. Investigating the processes of crust formation and intraplate continental volcanism in the High Lava Plains, Oregon, R.W. Carlson, D.E. James, M.J. Fouch, T.L. Grove, W.K. Hart, A.L. Grunder, R.A. Duncan, G.R. Keller, S.H. Harder and C.R. Kincaid, *AGU Fall 2006*.
174. The High Lava Plains seismic experiment: objectives, status and preliminary results, D. James, M. Fouch, K. Eager, S. Najir, J. Roth, L. Warren, C. Beghein, J. West, R. Carlson, S. Golden, J. Johnson, *AGU Fall 2006*.
175. Ensuring accuracy in high-precision isotope ratio measurements, R.W. Carlson, M. Boyet and M. Schonbachler, *Goldschmidt Meeting*, Cologne, 2007.
176. The timescale of the Earth's accretion and volatile loss: New constraints from Pd-Ag systematics, M. Schonbachler, R.W. Carlson, M. F. Horan and E.H. Hauri, *Goldschmidt Meeting*, Cologne, 2007.
177. Chondrite barium, neodymium and samarium isotopic heterogeneity and early Earth differentiation, R.W. Carlson, M. Boyet and M. Horan, *Goldschmidt Meeting*, Cologne, 2007.

178. Characterizing Fe-rich dunite xenoliths as cumulates of Phanerozoic and Archaean flood basalt magmatism, T. Rehfeldt, S.F. Foley, D.E. Jacob, R.W. Carlson, Goldschmidt Meeting, Cologne, 2007.
179. In search of the continental mantle end member, S.H. Richardson, S.B. Shirey, R.W. Carlson and S.R. Hart, Fall AGU meeting, 2007.
180. Terrestrial variation in $^{142}\text{Nd}/^{144}\text{Nd}$ and implications for early mantle dynamics, M. Boyet and R.W. Carlson, Fall AGU meeting, 2007.
181. Extremely depleted lithospheric mantle and diamonds beneath the southern Zimbabwe Craton, C.B. Smith, D.G. Pearson, G.P. Bulanova, A.D. Beard, R.W. Carlson, K. Sims, L. Chimuka, E. Muchemwa, Int. Kimberlite Conf., 2008.
182. Re-Os and Sm-Nd results from Varzea do Macaco Ni prospect and chromite deposit, Jacurici complex, Bahia, Brazil, J.C. Marques, J.C. Frantz, R.W. Carlson, F. Chemale Jr., VI South American Symposium on Isotope Geology, San Carlos de Bariloche, Argentina, 2008.
183. Eclogitic sulfide and silicate inclusions in diamonds and subcontinental geological processes, S.B. Shirey, S.H. Richardson, D.G. Pearson, R.W. Carlson and J.W. Harris, *Geochim. Cosmochim. Acta* 72, A862, 2008
184. Chromium nucleosynthetic anomalies in bulk and components of chondrites, L. Qin, C.M. O'D Alexander, R.W. Carlson and M.F. Horan, *Geochim. Cosmochim. Acta* 72, A769, 2008.
185. Eoarchean mafic crust in the Nuvvuagittuq greenstone belt, J. O'Neil, D. Francis, R.W. Carlson and R.K. Stevenson, *Geochim. Cosmochim. Acta* 72, A695, 2008.
186. Concentrating the slab-fluid input to Newberry Volcano, Oregon, R.W. Carlson, T.L. Grove and J.M. Donnelly-Nolan, *Geochim. Cosmochim. Acta* 72, A136, 2008.
187. Re-Os geochronology of the Varzea do Macaco chromite deposit and Ni-prospect, Jacurici Complex, Brazil, J.C. Marques and R.W. Carlson, Goldschmidt 2008, Vancouver.
188. Upper mantle velocity structure of the Cascadian back-arc and implications for the tectonomagmatic evolution of the High Lava Plains, Oregon, D. James, J. Roth, M. Fouch and R.W. Carlson, Fall AGU, 2008.
189. On the causes of continental intraplate volcanism: An example from the High Lava Plains of eastern Oregon, R.W. Carlson, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract V21E-01, 2008.
190. Primitive subduction zone magmatism at Mt. Shasta, California: Geochemical and petrologic characteristics of hydrous mantle derived melts, J.A. Barr, T.L. Grove, R.W. Carlson, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract V33C-2226, 2008.
191. Two distinct sets of magma sources in Cretaceous rocks from Magnet Cove, Prairie Creek, and other igneous centers of the Arkansas alkaline province, USA, G.I. Duke, R.W. Carlson and G.N. Eby, Fall AGU, 2008.
192. Old Sm-Nd ages for cumulate eucrites and redetermination of the solar system initial $^{146}\text{Sm}/^{144}\text{Sm}$ ratio, M. Boyet, R.W. Carlson, M. Horan and F. Tera, Goldschmidt meeting 2009.
193. Looking for the carrier phase of ^{54}Cr in the carbonaceous chondrite Orgueil, L. Qin, C.M.O'D. Alexander, L.R. Nittler, J. Wang and R.W. Carlson, *Meteoritics and Planet. Sci.*, submitted, April 2009.
194. $^{146,147}\text{Sm} - ^{142,143}\text{Nd}$ systematics of lunar ferroan anorthosites, M. Boyet, R.W. Carlson, M. Horan, and L. Borg, *Meteoritics and Planet. Sci.*, submitted, April, 2009.
195. $^{87}\text{Rb}-^{87}\text{Sr}$ and $^{146,147}\text{Sm}-^{142,143}\text{Nd}$ systematics in the angrite Northwest Africa 2999, M.E. Sanborn, R.W. Carlson, and M. Wadhwa, *Meteoritics and Planet. Sci.*, submitted, April, 2009.
196. What is Newberry volcano? J. Donnelly-Nolan, T.L. Grove, R.W. Carlson, GSA Annual Meeting, 2009.
197. Shallow, hot mantle melting in the High Lava Plains, Oregon, T.L. Grove, J.A. Barr, C.B. Till, J.N. Donnelly-Nolan, R.W. Carlson, GSA Annual Meeting, 2009.
198. Isotopic compositional changes across space, time and bulk-rock composition in the High Lava Plains and Northwestern Basin and Range, Oregon, M.T. Ford, R.W. Carlson and A.L. Grunder, GSA Annual Meeting, 2009.
199. Cenozoic basaltic volcanism in the Pacific Northwest, R.W. Carlson, W.K. Hart, T.L. Grove, GSA Annual Meeting, 2009.
200. Upper mantle structure beneath the High Lava Plains and the Snake River Plain hotspot tracks: Implications for a mantle plume, D. James, M. Fouch, J. Roth, R. Carlson, AGU Fall Meeting, 2009.

201. Crustal thickness and composition beneath the High Lava Plains of eastern Oregon, K.C. Eagar, M.J. Fouch, D.E. James, R.W. Carlson, HLP Seismic Group, AGU Fall Meeting, 2009.
202. Implications of the Nuvvuagittuq “faux-amphibolite” for the formation of Earth’s early crust, J. O’Neil, D. Francis, R.W. Carlson, AGU Fall Meeting, 2009.
203. Chemical and isotopic constraints on the origin of Cenozoic Pacific Northwest Volcanism, R.W. Carlson, W.K. Hart, T.L. Grove, J. M. Donnelly-Nolan, J.A. Barr and C.B. Till, AGU Fall Meeting, 2009.
204. Primitive Magnesian andesites at Mt. Shasta, California: A real mix-up, J.A. Barr, T.L. Grove, R.W. Carlson and M.J. Krawczynski, AGU Fall Meeting, 2009.
205. Linearity of mid-continent kimberlite-carbonatite magmatism, USA: Slab-edge focus as alternative to hot-spot track, G.I. Duke and R.W. Carlson, AGU Fall Meeting, 2009.
206. Seismic structure beneath the High Lava Plains/Newberry and Snake River Plain/Yellowstone hotspot tracks: Remnant slabs, slab gaps and problematic plumes, D. James, M. Fouch, J. Roth and R. Carlson, Seismological Society of America Meeting, 2010.
207. Baffin Island picrites contain normal terrestrial $^{142}\text{Nd}/^{144}\text{Nd}$: Implications for the source of high $^3\text{He}/^4\text{He}$ in the deep Earth, G.A.M. de Leeuw, R.W. Carlson, R.M. Ellam, and F.M. Stuart, EGU, 2010.
208. Baffin Island picrites contain normal terrestrial $^{142}\text{Nd}/^{144}\text{Nd}$: Implications for the source of high $^3\text{He}/^4\text{He}$ in the deep Earth, G.A.M. de Leeuw, R.W. Carlson, R.M. Ellam, and F.M. Stuart, Goldschmidt 2010, abstract A219.
209. Extreme ^{54}Cr -rich oxide grains in meteorites: Evidence for a single late supernova injection into the Solar System. L. Nittler, L. Qin, C. Alexander, J. Wang, F. Stadermann, R. Carlson, 11th Symposium on Nuclei in the Cosmos, March, 2010.
210. The formation and evolution of continental lithospheric mantle, R.W. Carlson and D.G. Pearson, Goldschmidt 2010, abstract A142, 2010.
211. The consequences of isotopic variability in the early solar nebula, R.W. Carlson, L. Qin, C. Alexander, Goldschmidt 2010, abstract A142, 2010.
212. Isotopic constraints on heterogeneous accretion of the Earth, M. Schonbachler, R. Carlson, M. Horan, T. Mock, E. Hauri, Goldschmidt 2010, abstract A929, 2010.
213. Geochemical and isotopic characteristics of the Nuvvuagittuq Belt: implications for Earth’s early crust formation, J. O’Neil, R.W. Carlson and D. Francis, Goldschmidt 2010, abstract A769, 2010.
214. Palladium-silver chronometry of IIA iron meteorites, M. Schonbachler, R.W. Carlson and K.J. Theis, Meteoritical Soc. Meeting, August 2010.
215. Message from the Moho: petrologic clues to the origin of Quaternary basaltic lavas from Oregon’s High Lava Plains, C.B. Till, T.L. Grove, and R.W. Carlson, abstract 181850, GSA Meeting, 2010.
216. Sub-arc mantle reservoirs through time in Cascadia, A. Bromley, A. Grunder, R.W. Carlson, and D.G. Pyle, 2010 AGU Fall Meeting, abstract V33b-2381.
217. Geochemical and isotopic evidence for melting and erosion of Wyoming craton mantle lithosphere prior to 48 Ma, G. Duke, R.W. Carlson and C. D. Frost, AGU Fall Meeting, 2010.
218. Opportunities and challenges for the precise chronology of Solar System formation, R.W. Carlson, C. Alexander, L. Borg, M. Boyet, J. Connelly, L. Nittler, J. O’Neil, L. Qin, AGU Fall Meeting, 2010.
219. Earth formation and differentiation, R.W. Carlson, J. O’Neil, M. Boyet and M. Jackson, AGU Fall Meeting, 2010.
220. A glimpse of Earth’s primordial crust: The Nuvuagittuq greenstone belt as a vestige of mafic Hadean oceanic crust, J. O’Neil and R.W. Carlson, AGU Fall Meeting, 2010.
221. Seismic evidence for a subduction origin of flood volcanism in the Cascadian backarc and the Snake River Plain/Yellowstone hotspot track, D. James, M. Fouch, J. Roth and R. Carlson, AGU Fall Meeting, 2010.
222. Craton Destruction: An ongoing example in western North America, R.W. Carlson and D.E. James, Int. Conf. Craton Formation and Destruction, Beijing, April 25-29, 2011.
223. Geodynamic controls on the chemical structure of the mantle, R.W. Carlson, IUGG Meeting, Melbourne, July, 2011.
224. Comparative Sr-Nd-Pb-Hf-Os isotopic systematics of xenolithic peridotites from Yangyuan, North China Craton, J. Liu, R.W. Carlson, R.L. Rudnick, R.J. Walker, F. Wu and S. Gao, Goldschmidt meeting, 2011.

225. Slow mantle upwelling on the margin of the Hawaiian plume based on ^{230}Th - ^{234}U - ^{238}U disequilibria at Loihi Seamount, A.J. Pietruszka, E.H. Hauri, R.W. Carlson and M.O. Garcia, Goldschmidt meeting, 2011.
226. Os isotope and PGE data on the age and evolution of lithospheric mantle in the central Siberian craton, L.S. Doucet, D.A. Ionov, R.W. Carlson, A.V. Golovin and I.V. Ashchepkov, Goldschmidt meeting, 2011.
227. Peridotite xenolith inferences on the formation and evolution of the central Siberian cratonic mantle, D.A. Ionov, L.S. Doucet, R.W. Carlson, N.P. Pokhilenko, A.V. Golovin and I.V. Ashchepkov, Goldschmidt meeting, 2011.
228. A new starting point for the mantle's geochemical reservoirs, M.G. Jackson and R.W. Carlson, Goldschmidt meeting, 2011.
229. Palladium-silver systematics in the oldest differentiated planetesimal, M.F. Horan, R.W. Carlson and J. Blichert-Toft, Goldschmidt meeting 2011.
230. Alkalic magmas and the diversity of mantle compositional variation, R.W. Carlson, Goldschmidt meeting, 2011.
231. Implications of a non-chondritic primitive mantle for chemical geodynamics, R.W. Carlson and M.G. Jackson, Goldschmidt meeting, 2011.
232. Age and origin of the Nuvvuagittuq greenstone belt, J.O'Neil, R.W. Carlson, D.E. Moser, L.M. Heaman and D. Francis, Goldschmidt meeting, 2011.
233. Correlated nucleosynthetic isotope variability in Cr, Sr, Ba, Sm, Nd and Hf in Murchison and QUE 97008, L. Qin, R.W. Carlson and C.M.O'D. Alexander, Meteoritical Society Meeting, London, 2011.
234. Distribution and carriers of Cr isotopic anomalies in the inner solar system, L. Qin, L.R. Nittler, C.M.O.D. Alexander, J. Wang and R.W. Carlson, LPI Workshop on Formation of the First Solids in the Solar System, Kauai, Nov. 2011.
235. Hf and Nd isotope data on the age of the Siberian cratonic mantle, L.S. Doucet, D.A. Ionov, G.P. Brey, R.W. Carlson, A.V. Golovin and A. Korsakov, Goldschmidt 2012.
236. Geochemical and isotopic characteristics of Earth's early mafic crust: a comparison between Nuvvuagittuq and Isua greenstone belt metavolcanic rocks, J.O. O'Neil, M. Boyet, H. Rizo, R.W. Carlson and M. Rosing, Goldschmidt 2012.
237. Earth Earth differentiation: Before and after Earth formation, R.W. Carlson, M. Boyet, L. Qin, M. Jackson, J. O'Neil, Goldschmidt 2012.
238. Early differentiation of the silicate Earth: new constraints from isotopic investigation of rocks from the lunar highlands, M. Boyet, R.W. Carlson, L. Borg, J. Connelly and M. Horan, EGU, 2012.
239. Ionov, D.A., L.S. Doucet, and R.W. Carlson (2012) Major element composition and origin of the lithospheric mantle in relation to Os isotope data on off-craton and cratonic xenoliths. European Mineralogical Conf. 2012.
240. Borg, L., A. Gaffney, and R.W. Carlson (2012) Evaluation of ages in the lunar highlands. AGU Fall Meeting, 2012.
241. Carlson, R.W., L. Ancuta, M. Fouch, B. Idleman, D. Ionov, D. James, A. Meltzer, D.G. Pearson, S. Shirey, P. Zeitler (2012) The role of the mantle lithosphere in continent stability. AGU Fall Meeting, 2012.
242. Ancuta, L., P. Zeitler, B. Idleman, R.W. Carlson (2012) Volcanic stratigraphy, $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology and geochemistry of Hangay Dome volcanic rocks, central Mongolia. AGU Fall Meeting.
243. Meltzer A., L. Ancuta, T. Baasanbat, R. Carlson, J. Caves, C.P. Chamberlain, J. Gosse, B. Idleman, D. Ionov, K. McDannell, T. Mendelson, H. Mix, M. Sabaj-Perez, A. Proussevitch, R. Russo, D. Sahagian, D. Sjostrom, J. Stachnik, M. Ulzibat, K. Wegmann, M. Winnick and P. Zeitler (2012) Intracontinental deformation and surface uplift – geodynamic evolution of the Hangay Dome, Mongolia, Central Asia. AGU Fall Meeting.
244. Carlson, R.W. (2013) Making Earth, Goldschmidt 2013, abstract.
245. Horan, M.F., R.W. Carlson and M. Schonbachler (2013) Improved Pd-Ag isotopic systematics by MC-ICP-MS, Goldschmidt 2013, abstract.
246. O'Neil, J.O., R.W. Carlson and M. Boyet (2013) Earth's Hadean crust: Insights from the Nuvvuagittuq Greenstone belt, Goldschmidt 2013, abstract.
247. Rizo, H., M. Touboul, R.W. Carlson, M. Boyet and R.J. Walker (2013) Early mantle composition and evolution inferred from ^{142}Nd and ^{182}W variation in Isua samples, Goldschmidt 2013, abstract.

248. Boyet, M., A. Gannoun, A. Bouvier and R.W. Carlson (2013) What are the ^{146}Sm - ^{142}Nd reference parameters for Earth? Goldschmidt 2013, abstract.
249. Carlson, R.W., M. Boyet, M. Jackson, J. O'Neil, L. Qin, H. Rizo (2013) Chemical differentiation of Earth before and after Earth formation, AGU Fall Meeting.
250. Ancuta, L., R.W. Carlson, B. Idleman, P. Zeitler, (2013) Geochemistry and geochronology of Hangay Dome volcanic rocks: exploring the source of high topography and volcanism in an intracontinental setting, AGU Fall Meeting.
251. O'Neil, J., R.W. Carlson and M. Boyet (2013) Building early Archean cratons from recycled Hadean crust, AGU Fall Meeting.
252. Blackburn, T., L. Elkins-Tanton, R.W. Carlson, C. Alexander, J. Hourigan (2013) Using the U-Pb system's dual decay scheme towards reconstructing the thermal histories and origins of ordinary chondrites, AGU Fall Meeting.
253. Tommasi, A., D. Ionov, K. Higgie, R. Carlson (2013) The mantle lithosphere beneath the Hangay dome in central Mongolia: Microstructures and seismic properties from mantle xenoliths from the Tariat alkali basalts, AGU Fall Meeting.
254. Rizo, H., M. Touboul, I. Puchtel, R.J. Walker, R.W. Carlson, M. Boyet (2013) Early mantle composition and evolution inferred from ^{142}Nd and ^{182}W variation in Isua samples, AGU Fall Meeting.
255. Till, C.B., T.L. Grove, J. Donnelly-Nolan, R.W. Carlson (2013) Depths and temperatures of mantle melt extraction in the southern Cascadia subduction zone, AGU Fall Meeting.
256. Heinonen, J.S., R.W. Carlson, T.R. Riley, A.V. Luttinen, M.F. Horan (2013) Subduction-modified oceanic crust in the sources of continental picrite dikes from the Karoo LIP? AGU Fall Meeting.
257. Carlson R.W. (2013) Cenozoic magmatism in the Cordilleran: Causes and consequences, GSA Ann. Meeting.
258. Carlson, R.W., J. O'Neil, M. Boyet, and L. Qin (2013) The use of extinct radionuclides to define the precise chronology of planet formation, GSA Ann. Meeting.
259. Shirey, S.B. and R.W. Carlson (2013) Isotopic and geophysical perspectives on deep mantle processes for constructing cratons, GSA Ann. Meeting.
260. Boyet, M. R.W. Carlson, L.E. Borg, and M. Horan (2014) Sm-Nd systematics of lunar ferroan anorthosite: Constraints on Moon formation and its early evolution. Goldschmidt abstract.
261. Horan, M.F., R.W. Carlson, R.J. Walker, F.E. Jenner (2014) The silver content of the terrestrial mantle. Goldschmidt abstract.
262. O'Neil, J., R.W. Carlson (2014) Reworking >1.5 billion-year-old crust to build Archean cratons. Goldschmidt abstract.
263. Till, C.B., T.L. Grove, R.W. Carlson, S. Wallis (2014) Insight into arc magma genesis from the Higashi-akaishi peridotite, Japan. Goldschmidt abstract.
264. Qin, L., C.M.O'D. Alexander, L.R. Nittler, R.W. Carlson, J. Xia (2014) Cr isotope anomalies, their origins and implications. Goldschmidt abstract.
265. Rizo, H., R.J. Walker, R.W. Carlson, M. Horan, M. Touboul, I.S. Puchtel, M. Boyet, M. Rosing (2014) Multiple early Earth differentiation events revealed by ^{142}Nd , ^{182}W , and HSE abundances in Isua samples. Goldschmidt abstract.
266. Duke, G.I., C.D. Frost, B.S. Singer, R.W. Carlson (2014) Early Tertiary magmatism in the Black Hills, USA. Geol. Soc. Amer. Rocky Mountain/Cordilleran meeting abstract.
267. Ionov, D.A. and R.W. Carlson (2014) The role of the mantle lithosphere in the history and dynamics of central Mongolia. Lherzolite Conference abstract.
268. O'Neil, J. and R.W. Carlson (2014) The Nuvvuagittuq greenstone belt: A case study of Hadean subduction? GSA Annual Meeting, Vancouver.
269. Rizo, H., R.J. Walker, R.W. Carlson, M. Touboul, M. Horan, I.S. Puchtel, M. Boyet, M. Rosing, (2014) Reconciling $^{182}\text{W}/^{184}\text{W}$ variability in the Archean mantle with W partition coefficients for metal-silicate differentiation. GSA Annual Meeting, Vancouver.
270. Till, C.B., M.R. Guild, T.L. Grove, R.W. Carlson (2014) Evidence of arc magma genesis in a paleo-mantle wedge, the Higashi-Akaishi peridotite, Japan. AGU Annual Meeting, San Francisco.
271. Ancuta, L.D., R.W. Carlson, D.A. Ionov, P.K. Zeitler (2014) Geochemistry and geochronology of the lower crust beneath central Mongolia. AGU Annual Meeting, San Francisco.
272. Carlson, R.W. and D.A. Ionov (2014) Lithospheric mantle contribution to high topography in central Mongolia. AGU Annual Meeting, San Francisco.

273. Rizo, H.L., R.J. Walker, R.W. Carlson, M. Touboul, M.F. Horan, I.S. Puchtel, M. Boyet, M. Rosing (2014) Early differentiation processes recorded by ^{142}Nd and ^{182}W in Eoarchean rocks from Isua. AGU Annual Meeting, San Francisco.
274. O'Neil J., R.W. Carlson (2015) Building Archean cratons from Hadean crust. GAC-MAC abstract.
275. Rizo, H., R.J. Walker, R.W. Carlson, M. Touboul, M. Horan, I.S. Puchtel, M. Boyet, M. Rosing (2015) Early differentiation processes recorded by ^{142}Nd and ^{182}W in Eoarchean rocks from Isua. GAC-MAC abstract.
276. Ionov, D.A., R.W. Carlson, L. Doucet, A.V. Golovin, O.B. Oleinikov (2015) Age and origin of peridotites from the Obnazhennaya kimberlite, NE Siberian craton: A most unusual cratonic xenolith suite. Goldschmidt 2015.
277. Qin, L., J. Xia, R.W. Carlson, Q. Zhang (2015) Chromium stable isotope composition of meteorites and its cosmochemical and geochemical significance. Goldschmidt 2015.
278. O'Neil, J., H. Rizo, M. Boyet, R.W. Carlson (2015) Geochemistry and Nd isotopic characteristics of Earth's primitive crust and Hadean mantle. Goldschmidt 2015.
279. Rizo, H., R.J. Walker, R.W. Carlson, D. Francis (2015) Memories of Earth formation in the modern mantle: W isotopic composition of flood basalt lavas. Goldschmidt 2015.
280. Ancuta, L.D., R.W. Carlson, D.A. Ionov (2015) Geochronology and geochemistry of lower crustal xenoliths: Exploring the formation of the lower crust beneath central Mongolia. AGU Annual Meeting, San Francisco.
281. Boyet, M., A. Bouvier, A. Gannoun, R.W. Carlson (2015) Causes of ^{142}Nd variation in Earth. AGU Annual Meeting, San Francisco.
282. Jackson, M.G., A.M. Jellinek, R.W. Carlson (2015) Consequences for an alternative Earth composition: A decade of insight. AGU Annual Meeting, San Francisco.
283. Meltzer, A., L. Ancuta, R. Carlson, J. Caves, C.P. Chamberlain, J. Gosse, B. Idleman, D. Ionov, K. McDannell, T. Mendelson, H. Mix, U. Munkhuu, A. Proussevitch, R. Russo, M. Sabaj-Perez, D. Sahagian, D. Sjostrom, J. Stachnik, B. Tsagaan, K. Wegman, M. Winnick, P. Zeitler (2015) Betwixt and between: structure and evolution of central Mongolia. AGU Annual Meeting, San Francisco.
284. Rizo, H., R.J. Walker, R.W. Carlson, S. Mukhopadhyay, D. Francis, M. Jackson (2015) Memories of Earth formation in the modern mantle: W isotopic composition of flood basalt lavas. AGU Annual Meeting, San Francisco.
285. Garcon, M., R.W. Carlson, S.B. Shirey, C. Chauvel, N.T. Arndt (2015) How recycling of sediments and oceanic crust have changed the Nd-Hf isotopic composition of the mantle through time. AGU Annual Meeting, San Francisco.
286. Qin, L. and R.W. Carlson (2016) Solar system and planet formation: insights from nucleosynthetic anomalies. Goldschmidt 2016.
287. Reimink, J.R., T. Chacko, R.W. Carlson, S.B. Shirey, J.H.F.L. Davies, D.G. Pearson, R.A. Stern, L.M. Heaman (2016) Petrogenesis of the 4.02 Ga Idiwhaa tonalitic gneiss and implications for crust formation on the early Earth. Goldschmidt 2016.
288. Carlson, R.W., M. Boyet, L. Qin, J. O'Neil, H. Rizo (2016) Pre-, syn, and post-formation controls on Earth composition. Goldschmidt 2016.
289. Liu, J., L. Qin, J. Xia, R.W. Carlson, I. Leya (2016) Cosmogenic effects on Cr isotopic composition of iron meteorites. Goldschmidt 2016.
290. Rizo, H., R.J. Walker, R.W. Carlson, M.F. Horan, S. Mukhopadhyay, V. Manthos, D. Francis, M.G. Jackson (2016) Preservation of Earth-forming events revealed in ^{182}W variations. HSE Workshop, Durham.
291. O'Neil, J. and R.W. Carlson (2016) Building Archean cratons from Hadean crust. AGU Annual Meeting, San Francisco.
292. Rizo, H., R.J. Walker, R.W. Carlson, M. Touboul, M.F. Horan, I.S. Puchtel, M. Boyet and M.T. Rosing (2016) Earth Earth differentiation processes investigated through the short-lived ^{146}Sm - ^{142}Nd and ^{182}Hf - ^{182}W isotope systems. AGU Annual Meeting, San Francisco.
293. Rizo, H., R.J. Walker, R.W. Carlson, M.F. Horan, S. Mukhopadhyay, D. Francis, M. Jackson (2016) ^{182}W evidence from flood basalt lavas for the long-term survival of primordial mantle. AGU Annual Meeting, San Francisco.
294. Blackburn, T., C.M.O'D. Alexander, R.W. Carlson, L.T. Elkins-Tanton (2016) The disruption of H and L ordinary chondrite parent bodies at 60 Ma. AGU Annual Meeting, San Francisco.

295. Reimink, J.R., T. Chacko, J.H.F.L. Davies, D.G. Pearson, R.A. Stern, L.M. Heaman, R.W. Carlson, S.B. Shirey (2016) The birth of a cratonic core recorded by changes in petrological processes within the Hadean-Eoarchean Acasta gneiss complex. AGU Annual Meeting, San Francisco.
296. Carlson R.W. (2016) Controls on terrestrial planet composition(s). ELSI “Before the Moon” meeting, November 2016.
297. Boyet, M. and R.W. Carlson (2016) Magma oceans in the Earth-Moon system. ELSI “Before the Moon” meeting.
298. Carlson, R.W., T.L. Grove and J. Donnelly-Nolan (2017) The origin of calc-alkaline and tholeiitic primary magmas: The example from primitive basalts of Newberry Volcano, Oregon. IAVCEI, Portland.
299. Moore, N.E., A.L. Grunder, W.A. Bohrsen, R.W. Carlson (2017) Source and magma processes during the onset of Columbia River basalt volcanism, the Steens basalt, SE Oregon. IAVCEI, Portland.
300. Garcon, M. M. Boyet, R.W. Carlson, S.B. Shirey, M.F. Horan (2017) ^{142}Nd anomalies in mid- to late-Archean sedimentary rocks: large scale recycling of Hadean crust? Goldschmidt 2017, Paris.
301. Reimink, J.R., R.W. Carlson, S.B. Shirey, D.G. Pearson (2017) Petrologic evolution of the Archean crust of the Slave craton, NWT, Canada. Goldschmidt 2017, Paris.
302. Peters, B.J., R.W. Carlson, J.M.D. Day (2017) An elevated ^{142}Nd signature in the Reunion mantle source. Goldschmidt 2017, Paris.
303. Rizo, H., R.L. Rudnick, R.J. Walker, R.W. Carlson (2017) Constraints on the W abundance of upper mantle from xenolithic peridotites. Goldschmidt 2017, Paris.
304. O’Neil, J., R.W. Carlson (2017) Building Archean cratons from Hadean mafic crust. Goldschmidt 2017, Paris.
305. Reimink, J.R., R.W. Carlson, S.B. Shirey, D.G. Pearson, B. Kamber (2017) On the origin of cratonic “high- μ ” isotopic signatures. AGU Fall Meeting.
306. Peters, B.J., R.W. Carlson, J.M.D. Day, M.F. Horan (2017) Hadean silicate differentiation revealed by anomalous ^{142}Nd in the Reunion hotspot source. AGU Fall Meeting.
307. Peters, B.J., A. Shahr, J.M.D. Day, T.D. Mock, R.W. Carlson (2018) Iron isotope variations in Reunion hotspot mantle source. EGU Meeting #10003.
308. Garcon, M., M. Boyet, R.W. Carlson, S.B. Shirey, D. Vance (2018) Using Archean sedimentary rocks from the Superior Province to decipher the crustal history and composition of the Canadian Shield. EGU Meeting #17665.
309. Reimink, J.R., R.W. Carlson, S.B. Shirey, D.G. Pearson (2018) Hf-isotope evolution of the Paleo-Neoproterozoic Slave craton basement complex. Earth Dynamics and the Development of Plate Tectonics. Royal Society of London.