

DONALD J. DEPAOLO

Senior Advisor, Energy Sciences, Lawrence Berkeley National Laboratory, MS 50B4230, Berkeley, CA 94720
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Graduate Professor of Geochemistry, Chancellor's Professor Emeritus and Director, Center for Isotope Geochemistry, Dept. Earth and Planetary Science, 473 McCone Hall, University of California, Berkeley, CA 94720-4767 (depaulo@eps.berkeley.edu)

Education

B.S. with Honors (Geology), SUNY Binghamton, 1973

Ph.D. (Geology, minor in Chemistry), California Institute of Technology, 1978

Positions Held

University of California, Los Angeles: Assistant Professor of Geology and Geochemistry, 1978-81; Associate Professor, 1981-1983; Professor, 1983-1988

University of California, Berkeley: Professor of Geochemistry, 1988-2016; Chair, Department of Geology and Geophysics. 1990-93; Class of 1951 Professor of Geochemistry, 1998-2016; **Graduate Professor of Geochemistry and Chancellor's Professor Emeritus, 2016-**

Lawrence Berkeley National Laboratory, Earth Sciences Division: Faculty Scientist, 1988- ; Geochemistry Department Head, 1998-2006; Director, Earth Sciences Division, 2007-2013

Director, Center for Isotope Geochemistry, UC Berkeley & LBNL, 1988-

Lawrence Berkeley National Lab., Assoc. Laboratory Director Energy & Environmental Sciences 2010-2013; Assoc. Laboratory Director Energy Sciences 2013-2016; **Senior Advisor, Energy Sciences 2016-**

Awards and Fellowships

F.W. Clarke Medal, Geochemical Society, 1978; J.B. MacElwane Award, American Geophysical Union, 1983; Fellow, American Geophysical Union, 1983; Mineralogical Society of America Award, 1987; Fellow, Mineralogical Society of America, 1987; Fellow, California Academy of Sciences, 1992; **Member, National Academy of Sciences, 1993; Fellow, American Academy of Arts and Sciences, 1994;** Fulbright Senior Scholar, Australia National University, 1994-95; Miller Research Professor, U.C. Berkeley, 1997-98; Geochemistry Fellow, Geochemical Soc. and EAG, 1997; Fellow, Geological Soc. America, 1997; Arthur L. Day Medal, Geol. Soc. America, 1999; John Simon Guggenheim Fellow, 2000-2001; Harold Urey Medal, European Association of Geochemistry, 2000; Fellow, AAAS, 2009; H.H. Hess Medal, American Geophysical Union, 2014; Goldschmidt Medal, Geochemical Society, 2019

Professional Service

Most recent and Current: NRC Committee on Nuclear Forensics Capabilities, 2019-20; NRC Committee to Review USGS Laboratories, 2018-19; LANL Capability Review Committee for Complex Natural and Engineered Systems, 2017; BES Committee on Basic Research Needs for SubTER, co-Chair, 2015; DOE Committee on Grand Challenge Research in Subsurface Science, 2015; BESAC Subcommittee on Grand Research Challenges in Energy Science, 2014-2015; NRC Committee on Strengthening the U.S. Environmental Protection Agency Laboratory Enterprise, 2013-14; NSF Committee of Visitors, Deep Earth Section of EAR, Chair, 2011; Advisory Comm, NSF Geoscience Directorate (2010-2012); Exec. Comm., DOE/FE National Risk Assessment Partnership (2009-2017; Chair 2013-2016); Board of Directors, Joint Bioenergy Institute, (2009-2015; Chair 2012-2015); Advisory Comm, Earth Evolution Program, CIFAR (2009-2014); Board of Directors, Berkeley Geochronology Center (2002-present); NAS Class I Membership Committee (2012)

Past: National Research Council: Committee Advisory to the USGS, 1982-86; Comm. on Physics and Chemistry of Earth Materials, 1986-87; Board on Earth Sciences, 1987-88; Geodynamics Comm., 1987-91; Board on Earth Sciences and Resources 1988-94 (Exec. Comm. 1990-94); Commission on Environmental Science, 1996-97; Committee on Building an Effective EMSP, 1996; Comm. on Future Roles of the USGS, Chair, 1998-2000; Committee on Grand Research Questions in Earth Science, Chair (2005-08);

American Geophysical Union: Fellows Committee, 1984-86, 1993-95; (VGP Section) 1993-95; H.H. Hess Award Comm., Chair, 1984-85, 1996-98; MacElwane Award Comm., 1984-86; Secretary, VGP Section, 1986-88; Program Comm., 1986-88; GRL Directions & Rev. Comm., Chair, 1995-96

University Earth Science Dept. Visiting/Review Committees: MIT Earth, Atmospheric, and Planetary Sciences Dept. 1989-98; Harvard Dept. Earth and Planetary Sci., 1990-95, Chair 1992-95; U. Hawaii School of Ocean and Earth Science and Tech., 1992; Purdue Dept. of Earth and Atmospheric Sci., 1993, Chair, 1998; U. Michigan Dept. Geological Sci., 1995; U.C. Santa Barbara Dept. Geological Sciences, 1997; U. Minnesota Dept. Geol. Sciences, Chair, 1997; Inst. Earth Sciences, Taiwan Academy of Sciences, Chair 2001, 2003; U. Oklahoma, 2004.

Editorial: Associate Ed., *J. Geophys. Res.*, 1985-87; Associate Ed., *Isotope Geoscience*, 1983-1987; Assistant Ed., *J. Petrology*, 1986-1992; Guest Assoc. Ed., *J. Geophys. Res.*, 1995-96; Guest Ed., *Geochem., Geophysics, Geosystems*, 2001-2004; Ed. Board, *Geochim. Cosmochim. Acta*, 1997-99

Department of Energy: Physical Sci. Advisory Comm., LLNL, 1993-95; Env. Programs Advisory Comm., LLNL, 1995-2006; Geochem. Panel, EMSP, 1997; Earth Sciences Council, BES/Geosciences Program, 1996-2007 (Chair 2000-2007); Co-chair, BES Workshop on Basic Research Needs in Geoscience (2006-07); DOE/Basic Energy Sciences/BESAC subcommittee on New Era of Science (2008)

National Science Foundation: DOSECC Science Advisory Comm., 1985-86; Petrology and Geochemistry Panel, EAR, 1996-98; MARGINS Program Review, OCE, 2004; Science Advisory Comm. SAFOD, 2004-2008; Continental Dynamics Panel, EAR (2003-2008); CIDER Steering Committee (2005-2010)

Other: F.W. Clarke Medal Comm. (Geochemical Society), 1984-86 (Chair, 1985-86); Councilor, Geochemical Society, 1986-88; Donath Medal Comm. (GSA) 1989-92; MSA Award Comm., 1995-96; Arthur L Day Prize Comm. (NAS), 1998; Urey Award Comm., EAG, 2001; Epstein Medal Comm, EAG, 2008; Day Medal Committee, GSA (2007-10); Day Prize Comm. NAS, 2010; Program Advisory Comm, DUSEL (2010-2011); Stanley Miller Medal Committee, NAS (2009-2010);

Research Interests

Application of mass spectrometry, isotope geochemistry, and principles of physics and chemistry to fundamental problems in geology, geochemistry, and environmental science. Origin and evolution of the Earth's continental crust, lithosphere and mantle. Petrogenesis and geochronology of igneous, metamorphic, and sedimentary rocks. Geochemical methods in environmental and climate change science.

Long Term Collaborators

F. M. Richter, University of Chicago

E. M. Stolper, California Institute of Technology

D. M. Thomas, University of Hawaii

B.M. Kennedy, Lawrence Berkeley Nat. Lab.

M.E. Conrad, Lawrence Berkeley Nat. Lab.

J.N. Christensen, Lawrence Berkeley Nat. Lab.

F.J. Ryerson, Lawrence Livermore National Lab.

Carl Steefel, Lawrence Berkeley Nat. Lab.

Graduate Advisor

G. J. Wasserburg, 1973-1978, California Institute of Technology

Students Advised (1978 to 2018; UCLA and UC Berkeley)

G. Lang Farmer (Ph.D)	Ken Sims (Ph.D)	Sarah Aciego (Ph.D)
Brian Marshall (Ph.D)	Thomas Johnson (Ph.D)	Karrie Weaver (Ph.D)
Bruce Nelson (Ph.D)	John Lassiter (Ph.D)	Victoria Lee (Ph. D)
Vickie Bennett (Ph.D)	Sean McCauley (Ph.D)	James Watkins (Ph.D)
John Christensen (Ph.D)	Joseph Skulan (Ph.D)	Brook Peterson (Ph.D)
Brian Stewart (Ph.D)	Allen Dodson (Ph.D)	Jennifer Druhan (Ph.D)
Rosemary Capo (Ph.D)	Melissa Hendricks (Ph.D)	Laura Nielsen (Ph.D.)
Eric Wendlandt (Ph.D)	Ethan Baxter (Ph.D)	Shuo Zhang (Ph.D.)
Anne Linn (Ph.D)	Lisa Hammersley (Ph.D)	Elizabeth Mitnick (Ph.D)
Ellen Daley (Ph.D)	Matthew Fantle (Ph.D)	Michael Antonelli (Ph.D.)
Frank Perry (Ph.D)	Maureen Feineman (Ph.D)	Shaun Brown (Ph.D.)
Daniel Schrag (Ph.D)	Kate Maher (Ph.D)	Anna Clinger (Ph.D.)
Steven Semken (MS)	Don Musselwhite (MS)	
Hyunhae Cynn (MS)	Megan Smith (MS)	

Postdocs Supervised (Ph.D institution)

Scott Borg (Arizona State U.)	Julia Bryce (UCSB)	Alex Gagnon (Caltech)	
Chang-Hwa Chen (Acad. Sinica)	Michael Singleton	Amy Hoffman (Caltech)	Garrett I
Nicola Swinburne	Sasha Turchyn (Harvard)	Jim Watkins (UC Berkeley)	
Stephen Getty (Harvard)	Justin Simon (UCLA)	Anirban Basu (U Illinois)	
Jo Lin (Columbia)	Stephanie Ewing (UCB)	Hang Deng (Princeton)	

Grants and Contracts Received (1978-2018)

Approximately \$40M from NSF, DOE, ACS, NASA, and other sources

Large Projects:

NSF Hawaii Scientific Drilling Project, 1993-2007 (\$12.5M) Lead PI

DOE Energy Frontier Research Center, 2009-2018 (\$32.5M) Director

Google Scholar and Web of Science Citation numbers as of February 2019:

Total Citations: GS 33,700; WoS 23,150 *h*-index: GS 88; WoS 79

Publications in refereed journals (chronological)

1. DePaolo, D.J. and G.J. Wasserburg, Nd isotopic variations and petrogenetic models: *Geophys. Res. Lett.* 3, 249-252 (1976)
2. DePaolo, D.J. and G.J. Wasserburg, Inferences about magma sources and mantle structure from variations of $^{143}\text{Nd}/^{144}\text{Nd}$: *Geophys. Res. Lett.* 3, 743-746 (1976)
3. DePaolo, D.J. and G.J. Wasserburg, The sources of island arcs as indicated by Nd and Sr isotopic studies: *Geophys. Res. Lett.* 4, 465-468 (1977)
4. Papanastassiou, D.A., D.J. DePaolo, and G.J. Wasserburg, Rb-Sr and Sm-Nd chronology and genealogy of mare basalts from the Sea of Tranquility: *Proc. Lunar Sci. Conf. 8th*, 1639-1672 (1977)

5. Wasserburg, G.J., F. Radicati di Brozolo, D.A. Papanastassiou, M.T. McCulloch, J.C. Huneke, R.F. Dymek, D.J. DePaolo, A.A. Chodos, and A.L. Albee, Petrology, chemistry, age and irradiation history of Luna 24: in Mare Crisium: The View from Luna 24, R.B. Merrill and J.J. Papike, eds., Pergamon Press, New York, p. 657-678 (1978)
6. DePaolo, D.J. and G.J. Wasserburg, Petrogenetic mixing models and Nd-Sr isotopic patterns: *Geochim. Cosmochim. Acta.* 43, 615-627 (1979)
7. DePaolo, D.J., Implications of correlated Nd and Sr isotopic variations for the chemical evolution of the crust and mantle: *Earth Planet. Sci. Lett.* 43, 201-211 (1979)
8. DePaolo, D.J., Estimation of the depth of origin of basic magmas: a modified thermodynamic approach and a comparison with experimental melting studies: *Contrib. Mineral. Petrol.* 69, 265-278 (1979)
9. DePaolo, D.J. and G.J. Wasserburg, Sm-Nd age of the Stillwater Complex and the mantle evolution curve for neodymium: *Geochim. Cosmochim. Acta.* 43, 999-1008 (1979)
10. DePaolo, D.J. and G.J. Wasserburg, Nd isotopes in flood basalts from the Siberian platform and inferences about their mantle sources: *Proc. Nat. Acad. Sci.* 76, 3056-3060 (1979)
11. Wasserburg, G.J. and D.J. DePaolo, Models of earth structure inferred from Nd and Sr isotopic abundances: *Proc. Nat. Acad. Sci.* 76, 3594-3598 (1979)
12. DePaolo, D.J. and R.W. Johnson, Magma genesis in the New Britain island arc: Constraints from neodymium and strontium isotopes and trace element patterns: *Contrib. Mineral. Petrol.* 70, 367-379 (1979)
13. DePaolo, D.J., Crustal growth and mantle evolution: Inferences from models of element transport and Nd and Sr isotopes: *Geochim. Cosmochim. Acta* 44, 1185-1196 (1980)
14. DePaolo, D.J., Sources of continental crust: Neodymium isotope evidence from the Sierra Nevada and Peninsular Ranges: *Science* 209, 684-687 (1980)
15. DePaolo, D.J., Trace element and isotopic effects of combined wallrock assimilation and fractional crystallization: *Earth Planet. Sci. Lett.* 53, 189-202 (1981)
16. DePaolo, D.J., Nd isotopic studies: Some new perspectives on earth structure and evolution: *EOS* 62, 137-140 (1981)
17. DePaolo, D.J., Nd isotopes in the Colorado Front Range and crust-mantle evolution in the Proterozoic: *Nature* 291, 193-196 (1981)
18. DePaolo, D.J., A neodymium and strontium isotopic study of the Mesozoic calc-alkaline granitic batholiths of the Sierra Nevada and Peninsular Ranges, California: *J. Geophys. Res.* 86, 10470-10488 (1981)
19. Wasserburg, G.J., S.B. Jacobsen, D.J. DePaolo, M.T. McCulloch and T. Wen, Precise determination of Sm/Nd ratios, Sm and Nd isotopic abundances in standard solutions: *Geochim. Cosmochim. Acta* 45, 2311-2323 (1981)
20. DePaolo, D.J., Radiogenic isotopes and crustal evolution: in Evolution of the Earth: Geodynamics Series, Vol. 5, R.J. O'Connell and W.S. Fyfe, eds., American Geophysical Union, p. 59-68 (1981)
21. DePaolo, D.J., W.I. Manton, E.S. Grew, and M. Halpern, Sm-Nd, Rb-Sr and U-Th-Pb systematics of granulite facies rocks from Fyfe Hills, Enderby Land, Antarctica: *Nature* 298, 614-618 (1982)
22. Marshall, B.D. and D.J. DePaolo, Precise age determinations and petrogenetic studies using K-Ca isotopes: *Geochim. Cosmochim. Acta* 46, 2537-2546 (1982)
23. DePaolo, D.J., Comment on 'Columbia River volcanism: the question of mantle heterogeneity or crustal contamination' by R.W. Carlson, G.W. Lugmair and J.D. Macdougall: *Geochim. Cosmochim. Acta* 47, 841-844 (1983)
24. Farmer, G.L. and D.J. DePaolo, Origin of Mesozoic and Tertiary Granite in the Western U. S. and Implications for Pre-Mesozoic Crustal Structure. 1. Nd and Sr Isotopic Studies in the Geocline of the Northern Great Basin: *J. Geophys. Res.* 88, 3379-3401 (1983)
25. DePaolo, D.J., The mean life of continents: Estimates of continental recycling rates from Nd and Hf isotopic data and implications for mantle structure: *Geophys. Res. Lett.* 10, 705-708 (1983)
26. DePaolo, D.J., F.T. Kyte, B.D. Marshall, J.R. O'Neil and J. Smit, Rb-Sr, Sm-Nd, K-Ca, O, and H isotopic study of Cretaceous-Tertiary boundary sediments, Caravaca, Spain: Evidence for an oceanic impact site: *Earth Planet. Sci. Lett.* 64, 356-373 (1983)
27. DePaolo, D.J., Geochemical evolution of the crust and mantle: *Rev. Geophys. and Space Phys.* 21, 1347-1358 (1983)
28. Farmer, G.L. and D.J. DePaolo, Origin of Mesozoic and Tertiary granite in the western U. S. and implications for pre-Mesozoic crustal structure. 2. Nd and Sr isotopic studies unmineralized and Cu- and Mo-mineralized granite in the Precambrian craton: *J. Geophys. Res.* 89, 10141-10160 (1984)
29. DePaolo, D.J. and G.L. Farmer, Isotopic data bearing on the origin of Mesozoic and Tertiary granitic rocks in the western United States: *Phil. Trans. Royal Soc. Lond. A* 310, 743-754 (1984)
30. DePaolo, D.J., REPLY: The mean life of continents: Estimates of continent recycling rates from Nd and Hf isotopic data and implications for mantle structure: *Geophys. Res. Lett.* 11, 154-155 (1984)

31. Nelson, B.K. and D.J. DePaolo, Origin of 1700 Myr greenstone successions in southwestern North America and the isotopic evolution of Proterozoic mantle: *Nature* 311, 143-146 (1984)
32. DePaolo, D.J. and Ingram, B.L., High resolution stratigraphy with Strontium isotopes: *Science* 227, 938-941 (1985)
33. Nelson, B.K. and DePaolo, D.J., Rapid production of continental crust 1.7-1.9 b.y. ago: Nd and Sr isotopic evidence from the basement of the North American midcontinent: *Geol. Soc. Am. Bull.* 96, 746-754 (1985)
34. Montanari, A., R. Drake, D.M. Bice, W. Alvarez, G.H. Curtis, B.D. Turrin and D.J. DePaolo, Radiometric time scale for the Upper Eocene and Oligocene based on K/Ar and Rb/Sr dating of volcanic biotites from the pelagic sequence of Gubbio, Italy: *Geology* 13, 596-599 (1985)
35. DePaolo, D.J., Isotopic studies of processes in mafic magma chambers. I. The Kiglapait intrusion, Labrador: *J. Petrol.* 26, 925-951 (1985)
36. DePaolo, D.J., Detailed record of the Neogene Sr isotopic evolution of seawater from DSDP Site 590B: *Geology* 14, 103-106 (1986)
37. DePaolo, D.J., Isotopic constraints on planetary evolution: in *The Solar System: Observations and Interpretations*, M.G. Kivelson, ed., Prentice-Hall, New Jersey, p. 94-115 (1986)
38. Xuan, H., Bi Ziwei and D.J. DePaolo, A Sm-Nd isotopic study of early Archean rocks, Qianan, Hebei Province, China: *Geochim. Cosmochim. Acta* 50, 625-631 (1986)
39. Nelson, B.K., M.J. DeNiro, M.J. Schoeninger, D.J. DePaolo and P.E. Hare, Effects of diagenesis on strontium, carbon, nitrogen and oxygen concentration and isotopic composition of bone: *Geochim. Cosmochim. Acta* 50, 1941-1949 (1986)
40. Marshall, B.D., H.H. Woodard, H.W. Krueger and D.J. DePaolo, K-Ca-Ar systematics of authigenic sanidine from Waukau, Wisconsin, and the diffusivity of argon: *Geology* 14, 936-938 (1986)
41. Montanari, A., R. Drake, D.M. Bice, W. Alvarez, G.H. Curtis, B.D. Turrin and D.J. DePaolo, Radiometric dating of the Eocene-Oligocene boundary at Gubbio, Italy: in Pomerol, Ch. and Premoli-Silva, I. (eds.), Terminal Eocene Events, Elsevier, Amsterdam, 41-47 (1986)
42. Farmer, G.L. and D.J. DePaolo, A Nd and Sr isotopic study of hydrothermally altered granite at San Manuel, Arizona: Implications for element migration paths during the formation of porphyry-copper ore deposits: *Econ. Geol.* 82, 1142-1151 (1987)
43. Bennett, V.C. and D.J. DePaolo, Proterozoic crustal history of the western United States as determined by Neodymium isotopic mapping: *Geol. Soc. Am. Bull.* 99, 674-685 (1987)
44. Richter, F.M. and D.J. DePaolo, Numerical models of diagenesis: Application to DSDP 590B and the Neogene Sr isotopic evolution of seawater: *Earth Planet. Sci. Lett.* 83, 27-38 (1987)
45. Perry, F.V., W.S. Baldrige and D.J. DePaolo, The role of asthenosphere and lithosphere in the genesis of Late Cenozoic basaltic rocks from the Rio Grande rift and adjacent regions of the southwestern United States: *J. Geophys. Res.*, 92, 9193-9213 (1987)
46. DePaolo, D.J., Correlating rocks with strontium isotopes: *Geotimes*, December, p.16-18 (1987)
47. Nelson, B.K. and D.J. DePaolo, Comparison of Isotopic and Petrographic Provenance Indicators in Sediments from Tertiary Continental Basins of New Mexico: *J. Sed. Petrol.* 58, 348-357 (1988)
48. DePaolo, D.J., Age dependence of the composition of continental crust as determined from Nd isotopic variations in igneous rocks: *Earth Planet. Sci. Lett.* 59, 263-271 (1988)
49. DePaolo, D.J., Neodymium Isotope Geochemistry: An Introduction, Springer-Verlag, Heidelberg, 187pp (1988)
50. Perry, F.V., Baldrige, W.S., DePaolo, D.J., Chemical and isotopic evidence for lithospheric thinning beneath the Rio Grande rift: *Nature* 332, 432-434 (1988)
51. Richter, F.M. and D.J. DePaolo, Diagenesis and Sr isotopic evolution of seawater using data from DSDP 590B and 575: *Earth Planet. Sci. Lett.* 90, 382-394 (1988)
52. Marshall, B.D. and D.J. DePaolo, Calcium isotopes in igneous rocks and the origin of granite: *Geochim. Cosmochim. Acta* 53, 917-922 (1989)
53. Musselwhite, D.M., D.J. DePaolo and M.J. McCurry, The evolution of a silicic magma system: Isotopic and chemical evidence from the Woods Mountains Volcanic Center, eastern California: *Contrib. Mineral. Petrol.* 101, 19-29 (1989)
54. Farmer, G.L., S. Semken, B. Crowe, F.V. Perry, D. Curtis, D.J. DePaolo, Isotopic evidence regarding the structure and origin of subcontinental lithospheric mantle in the southern Great Basin: *J. Geophys. Res.* 94, 7885-7898 (1989)
55. Christensen, J.N., J.L. Rosenfeld and D.J. DePaolo, Rates of tectonometamorphic processes from rubidium and strontium isotopes: *Science* 244, 1465-1469 (1989)
56. Stewart, B.M. and D.J. DePaolo, Isotopic studies of processes in mafic magma chambers: II. The Skaergard Intrusion, East Greenland: *Contrib. Mineral. Petrol.* 104: 125-141 (1990)

57. Borg, S.G., D.J. DePaolo and B.M. Smith, Isotopic structure and tectonics of the Central Transantarctic Mountains: *J. Geophys. Res.*: vol. 95, No. B5, 6647-67(1990)
58. Perry, F.V., W.S. Baldrige, D.J. DePaolo and M. Shafiqullah, Evolution of a magmatic system during continental extension: The Mount Taylor volcanic field, New Mexico: *J. Geophys. Res.*, vol. 95, p. 19327-19348, (1991)
59. DePaolo, D.J., Finger, K.L., High resolution strontium isotope stratigraphy and biostratigraphy of the Miocene Monterey Formation, central California: *Bul. Geol. Soc. Am.*, vol 103, No. 1, p. 112-124, (1991)
60. Capo, R.C., and D.J. DePaolo, Seawater Strontium Isotopic Variations: 2.5 Ma to the Present, *Science*, v. 249, p. 51-55 (1990)
61. DePaolo, D.J., A.M. Linn, and G. Schubert, The Continental Crustal Age Distribution: Methods of Determining Mantle Separation Ages From Sm-Nd Isotopic Data And Application To The Southwestern U.S: *J. Geophys. Res.*, v. 96, p. 2071-2088 (1991)
62. Borg, Scott G., and D.J. DePaolo, A Tectonic Model of the Antarctic Gondwana Margin with Implications for Southeastern Australia: Isotopic and Geochemical Evidence: *Tectonophysics*, v. 196, p. 339-358 (1991)
63. Richter, F.M., D.B. Rowley, and D.J. DePaolo, Sr Isotope Evolution of Sea Water: The Role of Tectonics, *Earth Planet. Sci. Lett.* v. 109, p. 11-23 (1992)
64. Linn A.M., D.J. DePaolo, and R.V. Ingersoll, Nd-Sr Isotopic Provenance Analysis of Upper Cretaceous Great Valley Fore-arc Sandstones, *Geology*, v. 19, p. 803-806 (1991)
65. DePaolo, D.J., E.M. Stolper, and D.M. Thomas, Scientific opportunitites from Deep Drilling in Hawaii. Part I: Physics and chemistry of plume-lithosphere interactions *EOS*, v. 72, p. 236-237 (1991)
66. Richards, M.A., D.L. Jones, R.A. Duncan, and D.J. DePaolo, A Mantle Plume Initiation Model for the Wrangellia Flood Basalt and Other Oceanic Plateaus, *Science*, vol. 254, p. 263-267 (1991)
67. Daley, E.E., and D.J. DePaolo, Isotopic Evidence for Contrasting Upper Crust and Lower Lithosphere Strain Histories During Extension: SE Great Basin, *Geology*, v. 20, p. 104-108 (1992)
68. Schrag, D.P., D.J. DePaolo, and F.M. Richter, Oxygen Isotope Exchange in a Two-Layer Model of Oceanic Crust, *Earth Planet. Sci. Lett.*, vol. 111, p. 305-317 (1992)
69. Stewart, B.W., and D.J. DePaolo, Diffusive Isotopic Contamination of Mafic Magma by Coexisting Silicic Liquid in the Muskox Intrusion, Northwest Territories, Canada, *Science*, vol. 255, p. 708-711 (1992)
70. Wendlandt, E., D.J. DePaolo, and W.S. Baldrige, Nd and Sr Isotope Chronostratigraphy of Colorado Plateau Lithosphere: Implications for Magmatic and Tectonic Underplating of the Continental Crust: *Earth Planet. Sci. Lett.*, v. 116, p. 23-43 (1993)
71. DePaolo, D.J., F.V. Perry, and W.S. Baldrige, Crustal versus mantle sources of granitic magmas: a two-parameter model based on Nd isotopic studies: *Earth Sci. Trans. Royal Soc. Edinburgh*, vol. 83, p. 439-446 (1992)
72. Christensen, J.N., and D.J. DePaolo, Timescales of Large Volume Silicic Magma Systems: Sr Isotopic Systematics of Phenocrysts and Glass from the Bishop Tuff, Long Valley, California: *Contrib. to Mineral. and Petrol.* v.113, p. 100-114 (1993)
73. Linn, A.M., D.J. DePaolo, and R.V. Ingersoll, Nd-Sr isotopic, geochemical, and petrographic stratigraphy and paleotectonic analysis: Mesozoic Great Valley forearc sedimentary rocks of California: *Geological Soc. Am. Bull.* v. 104, p. 1264-1279 (1992)
74. Linn, A. M. and D.J. DePaolo, Provenance Controls on the Nd-Sr-O Isotopic Composition of Sandstones: Example from Late Mesozoic Great Valley Forearc Basin, California: *GSA Special Paper 284: "Processes controlling the composition of clastic sediments,"* p. 121-133 (1993)
75. Schrag, D.P. and D.J. DePaolo, Determination of $\delta^{18}\text{O}$ of seawater in the deep ocean during the last glacial maximum: *Paleoceanography*, v. 8, p. 1-6 (1993)
76. Chen, C.-H., D.J. DePaolo, S. Nakada, and Y.-N. Shieh, Relationship between eruption volume and Nd isotopic composition in dacite of Unzen volcano, Japan: *Nature*, v. 362, p. 831-834 (1993)
77. Ingram, B. L. and D. J. DePaolo, A 4,500-year strontium-isotope record of paleosalinity and freshwater inflow in San Francisco Bay, California: *Earth Planet. Sci. Lett.* v. 119, p. 103-119 (1993)
78. Perry, F.V., D.J. DePaolo, and W.S. Baldrige, Neodymium isotopic evidence for decreasing crustal contributions to Cenozoic ignimbrites of the western United States: Implications for the thermal evolution of the Cordilleran crust: *Geol. Soc. Am. Bull.*, v. 105, p. 872-882 (1993)
79. Borg, S.G. and D.J. DePaolo, Laurentia, Australia, and Antarctica as part of a Late Proterozoic supercontinent: Constraints from isotopic mapping of continental crustal provinces: *Geology*, v. 22, p.307-310 (1994)
80. Johnson, T.M. and D.J. DePaolo, Interpretation of isotopic data in groundwater-rock systems: model development and application to Sr isotopic data from Yucca Mountain: *Water Resources Res.*, v. 30, p.1571-1587 (1994)

81. Christensen, J.N., J. Selverstone, J.L. Rosenfeld, and D.J. DePaolo, Correlation by Rb-Sr geochronology of garnet growth histories from different structural levels within the Tauern Window, Eastern Alps: *Contrib. Mineral. Petrol.*, v.118, p. 1-12 (1994)
82. Sims, K.W.W., D.J. DePaolo, M.T. Murrell, W.S. Baldrige, S.J. Goldstein and D.A. Clague, Mechanisms of Magma Generation Beneath Hawaii and Mid-Ocean Ridges: U-Th and Sm-Nd Isotopic Evidence: *Science*, v. 267, p. 508-512 (1995)
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1. (co-Chair) DOE, Controlling Subsurface Fractures and Fluid Flow: A Basic Research Agenda, DOE, 2015
2. (Member) Basic Energy Sciences Advisory Committee, Subcommittee on Grand Research Challenges in Energy Science, 2014-2015
3. (Member) National Research Council Committee on Strengthening the U.S. Environmental Protection Agency Laboratory Enterprise, 2013-14
4. (Member) Basic Energy Sciences Advisory Comm., Subcommittee on New Era of Science (2008) *New Science for a Secure and Sustainable Energy Future*, Dept. of Energy, Office of Basic Energy Sciences, < <http://www.sc.doe.gov/bes/reports/list.html>>
5. (Chair) National Research Council (NRC) (2008) *Origin and Evolution of Earth: Research Questions for a Changing Planet*. National Academy Press, Washington, D.C., 185p.
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7. (Chair) National Research Council (NRC) (2000) *Future Roles and Opportunities for the U.S. Geological Survey*. National Academy Press, Washington, D.C.
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Educational Film Project involvement

1. *Hawaii: Roots of Fire*. 2011; PBS Documentary, produced and directed by Earth Images Foundation, Oakland, CA (<http://earthimage.org/Hawaii.html>)
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