

RESUME - JOAQUIN RUIZ

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University of Arizona
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EDUCATION

B.Sc. Geology - University of Miami, Miami, Florida - 1977
B.S. Chemistry - University of Miami, Miami, Florida - 1977
M.S. Geology - University of Michigan, Ann Arbor, Michigan - 1980
Ph.D. Geology - University of Michigan, Ann Arbor, Michigan - 1983

PROFESSIONAL EMPLOYMENT

Dean, College of Science, University of Arizona, 2000-
Head, Department of Geosciences, University of Arizona, 1995-2000
Professor of Geosciences, University of Arizona, 1993-
Visiting Associate Professor of Geosciences, University of California at Berkeley, 1991
Visiting Researcher, Lawrence Livermore National Laboratory, 1991
Associate Professor of Geosciences, University of Arizona, 1989-1993
Assistant Professor of Geosciences, University of Arizona, 1983-1989
Assistant Professor of Geosciences, University of Miami, 1982-1983
Lecturer of Geology, University of Michigan, 1980-1981

PROFESSIONAL SOCIETIES

Geological Society of America, Fellow
Society of Economic Geologists, Fellow
American Geophysical Union
American Chemical Society
Geochemical Society

PROFESSIONAL SERVICE

National and International

Associate Editor, American Journal of Science, 2004-2008
Board Member, Center to Improve Diversity in Earth Systems Sciences, Inc. 2003-
Member, Governing Board, Instituto Nacional de Astronomia, Optica y Electronica, Mexico. 2003-
Member, National Research Council, National Academies of Science, Committee on Natural Resources, 2003-2005.
Member, Human Resources Committee, American Geological Institute 2000-2005
Associate Editor, "Geology", Geological Society of America, 2000-2002
Member of Selection Committee for Donath Medal for Young Scientists, Geological Society of America, 1999-2000
Strategic Planning for Publications, Geological Society of America, 1999-2000
US National Committee for IAVCEI – 1996-1998
Secretary of Volcanology Section of the American Geophysical Union, 1996-1998
Councillor, Geological Society of America, 1997-2000
Chair of External Review Committee for Department of Geological Science, UTEP, 1997
Program Chair, Goldschmidt Conference, Geochemical Society, 1997

Advisory Committee, Department of Geological Sciences, University of Michigan, 1995-2000
Panel Member, National Science Foundation, Instrumentation and Facilities Program, Division of Earth Sciences, 1991-1994
Panel Member, National Science Foundation, Centers for Excellence in Science and Technology Program, Directorate of Education, 1988, 1990
Associate Editor, "Revista," National University of Mexico Press, 1990-1993
Associate Editor, "Boletin Mexicana de Mineralogia, A.C.," 1991-1994
Member, Student Affairs Committee, Society of Economic Geologists, 1988-1989
Convener, Symposium on Geology and Tectonics of Mexico, GSA National Meeting, 1987
Convener, Symposium on Carbonate-Hosted Ore Deposits, GSA National Meeting, 1986

University and Departmental

Chair, Search Committee for Dean of College of Education, University of Arizona 2002-2003.
Chair, *Strategic Planning and Budget Committee*, University of Arizona, 1995-2000
Member, *Search Committee for Provost*, University of Arizona, 2000
Member, *Search Committee for VP for Federal Relations*, University of Arizona, 2000
Member, *Executive Committee for Gift campaign*, University of Arizona, 2000
Member, *Campaign Management Committee*, University of Arizona Foundation, 2000
Chair, *Search Committee for Associate Dean, College of Science*, University of Arizona, 1997
Chair, *Search Committee, for Director of Flandrau Science Center*, University of Arizona, 1998
Member, *Search Committee for President of the University of Arizona*, University of Arizona 1997
Senator of Arts and Sciences College, Faculty Senate, University of Arizona, 1993-1995
Member, *Search Committee for Dean of Social and Behavioral Sciences College*, University of Arizona, 1992
Member, *Search Committee for Vice President for Student Affairs*, University of Arizona, 1992
Member, *Ad-Hoc Committee to Create Advisory Committee on University Planning*, University of Arizona, 1992
Chairman, *Graduate Policy Committee*, Department of Geosciences, University of Arizona, 1989-1991
Chairman, *Extraordinary Review Committee of Dean of Education*, University of Arizona, 1990
Member, *Committee to Evaluate Performance of Dean of Sciences*, University of Arizona, 1989
Member, *Self-Study Committee for NCA Accreditation of the University of Arizona*, 1989-1990
Senator of Arts and Sciences College, Faculty Senate, University of Arizona, 1986-1989
Member, *Committee on Research*, Faculty Senate, University of Arizona, 1988-1989
Member, *Graduate Policy Committee*, Department of Geosciences, University of Arizona, 1986-1991
Chairman, *Mineralogy, Petrology, Geochemistry Curriculum Committee*, Department of Geosciences, University of Arizona, 1984-1986

GRANTS AND CONTRACTS

Federal Agencies, Foundations, and Private Companies

Ruiz, J.	"Travel grant to visit xenolith-bearing localities in Mexico"		
	National Science Foundation	1983	\$4,580
Ruiz, J.	"Purchase of ICP-MS"		
	Keck Foundation	1985	\$250,000
Ruiz, J. and Patchett, P.J.	"Characterization of accreted terranes in the Mexican Cordillera based on Nd-Sr isotopes of lower crustal xenoliths"		
	National Science Foundation	1986-88	\$94,000

Ganguly, J. and Ruiz, J.	"Time-temperature relation of mineral isochrons: Thermodynamic model and proposed experimental study"	American Chemical Society, Petroleum Research Fund	1986-88	\$35,000
Ruiz, J. and Patchett, P.J.	"Nd-Sr study of the lower Paleozoic Acatlan Complex, southern Mexico"	National Science Foundation	1988-90	\$35,000
Ruiz, J.	"Determination of Sr and Pb isotopes using the ICP-MS"	Unocal	1987-88	\$5,000
Ruiz, J.	"U-Th-Pb systematics of lower crust"	National Science Foundation	1989-91	\$75,000
Ruiz, J.	"Re-Os dating of molybdenite"	National Science Foundation	1990-92	\$78,200
Dickinson, W.R., Patchett, P.J., and Ruiz, J.	"Tectonics and sediment sources of the Ouachita orogen through Nd isotopic and REE studies"	National Science Foundation	1991-93	\$110,000
Ruiz, J.	"Purchase of negative TIMS for Re-Os isotopic studies"	Keck Foundation	1991	\$400,000
Ruiz, J., Patchett, P.J., and Coney, P.J.	"Isotopic and petrologic and U-Pb geochronology of the Guerrero terrane, western Mexico"	National Science Foundation	1991-93	\$124,505
Barton, M.D., and Ruiz, J.	"A comparative study of Fe-P mineralization"	National Science Foundation	1991-94	\$149,204
Barton, M.D., and Ruiz, J.	"Industrial consortium for the study of Mexico"			\$120,000
Ruiz, J.	"Development of laser ablation source for ICP-MS"	National Science Foundation	1992-95	\$170,000
Ruiz, J.	"Travel grant to visit Paleozoic and Precambrian terranes of Colombia"	National Science Foundation	1992	\$7,500
Ruiz, J., and McCandless, T.	"Rhenium-osmium isotope systematics of the Bushveld Complex, South Africa"	National Science Foundation	1994-96	\$77,777
Chesley, J.T., and Ruiz, J.	"Rhenium-osmium systematics of the Columbia River basalt group"	National Science Foundation	1994-95	\$28,146
Ruiz, J., and McCandless, T.	"ICPMS and laser ablation ICPMS (LA-ICPMS) for the determination of metals in fluid inclusions — a pilot study"	National Science Foundation		\$19,310

Ruiz, J. "Technical support for isotope geochemistry laboratory" National Science Foundation	1994-97	\$120,000
Ruiz, J. "Development of laser ablation ICPMS" Finnigan MAT	1993-1996	\$180,000
Ruiz, J. "Re-Os Systematics of the Columbia River Basalts" National Science Foundation	1994-1996	\$77,000
Ruiz, J. Titley, S., McCandless T, Chesley, J. "Re-Os Isotopes in Ore Deposits" National Science Foundation	1996-1998	\$180,000
Ruiz, J. "Paleozoic Evolution of Mexico" National Science Foundation	1996-1998	\$120,000
Ruiz, J. "Technical Support-Phase II" National Science Foundation	1997-1999	\$90,000
Ruiz, J and Chesley, JT "Re-Os Isotopic dating of Skarn Deposits" National Science Foundation	1998-2000	\$60,000
Ruiz, J, Chesley, J, Righter, K. "Crustal vs Mantle Sources in Continantal Arc Volcanism" National Science Foundation	1999-2001	\$170,000
Chesley JT, Ruiz J, Quade J, "Os Isotopic Composition of Himalayan Paleorivers" National Science Foundation.	1999-2001	\$120,000
Ruiz J, Patchett PJ, Gehrels G, Beck W. "Acquisition of Multi-collector ICPMS" National Science Foundation	1999-2002	\$470,000
Olsen, J, Dean, J., Ruiz, J. IGERT in Anthropological Studies	2002-2005	\$1,900,000
Ruiz, J., Chesley, J, Titley, SR. Re-Os Studies of the Witwatersrand 3.0 Ga Gold Deposit, South Africa.	2003-2004	\$120,000

Intramural

Ruiz, J. "Fluid evolution of stockwork-like mineralization in young oceanic crust" College of Arts and Sciences Research Fund, University of Miami, Coral Gables, Florida	1983	\$10,000
Ruiz, J. "Travel to Halifax, Nova Scotia, to present invited paper on tin-rhyolites" International Studies, University of Arizona	1985	\$1,000
Ruiz, J. "Geochemical provinces of Arizona based on Pb isotopes" Small Research Grants, University of Arizona	1988-90	\$4,016

Ruiz, J.	"Travel award to NATO conference on granulites" International Studies, University of Arizona	1988	\$425
Interdisciplinary			
Ruiz, J and Denton, Bonner	"High Precision Pt-Ir-Rh-Pd measurements of catalytic converters" AC Delco Division of General Motors"	1996	\$120,000
Bassett, R.L. and Ruiz, J.	"An investigation of the use of boron isotopes as indicators for the origin of fluids in sedimentary basins" American Chemical Society, Petroleum Research Fund	1988-90	\$40,000
Van Wyck, D.B., Stivelman, J.C., and Ruiz, J.	"Iron metabolism in the Al mediated anemia of chronic renal failure" State of Arizona	1986-87	\$68,000
Van Wyck, D.B., Stivelman, J.C., and Ruiz, J.	"Effect of chelatable Al burden on response to recombinant human erythropoietin" Cash donation, industry		\$21,450
Van Wyck, D.B., Stivelman, J.C., and Ruiz, J.	"Interactions of aluminum and iron in the therapeutic response to recombinant human erythropoietin for dialysis associated media" Cash donation, industry	1988-89	\$25,000

Students and Collaborators (Ph.D. Unless noted)

Victor Valencia	2004, expected date of completion.
Fernando Barra	2004, expected date of completion.
Jason Kirk	2004, expected date of completion
Ryan Mathur	2002, now Professor at Juniata College
Martin Valencia	1998, now Professor at National U of Mexico
Diana Meza	1998, now Professor at U of Sonora
Lukas Ochoa	1998, now Professor at U of Sonora
Lukas Zurcher (MS)	1995, now post-doc at Arizona
Pedro Restrepo	1995, now VP exploration Colombian National Oil
Robin Bouse	1995, now at U.S. Geological Survey
T.E. McCandless	1993, now Chief Mineralogist Gencor, Canada
Elena Centeno	1993, now Prof at National University of Mexico
Ricardo Torres (MS)	1993, now at Instituto Mexicano del Petroleo
Pablo Yanez (MS)	1990, now at Westinghouse EPA lab.
Sheila Roberts (MS)	1989, now faculty member at Bowling Green University
Michael Roddy (MS)	1988, employed by EPA-related firm.
M. Cadi Reece (MS)	1988, now at British Petroleum
Raul Diaz (MS)	1987, now at Peñoles Mining Company, Mexico.
Candace Krebs (MS)	1985, now at BHP-Utah
George Allen (MS)	1985, now independent consultant.
David Jones (MS)	1985, now independent consultant
David Lofquist (MS)	1985, now at EXXON.

Post-Doctoral Associates

John Chesley	1995-2002	Ph.D. University of Michigan
Claire Freydier	1996-1998	Ph.D. University of Grenoble
Tom McCandless	1995-1999	Ph.D. University of Arizona
Ryan Mathur	2001	Ph.D. University of Arizona

Visiting scientists

Oscar Talavera	2003-04 – University of Guerrero, Mexico
Jorge Marquinez	1995 – University of Oviedo, Spain
Henriette Lapierre	1994-95 - University of Grenoble
Mo Ghazi	1995 - Georgia State University
Fernando Ortega Gutierrez	1993 – National University of Mexico
James R. Lang	1991 - University of British Columbia
Ahmed Fakhry	1993 - (Fulbright Scholar) - NRC, Cairo, Egypt.
John Lassiter	1993 - Berkeley
Dante Moran	1993 - National University of Mexico
Kurt Hollocher	1992-1993 (sabbatical leave) - Union College
Rodolfo Corona	1992 - National University of Mexico
Jeff Ryan	1992 - University of South Florida
Tom Moyer	1991-92 - Vanderbilt University
Jon Spencer	1990 - Arizona Geological Survey
Brian Smith	1989 - Lawrence Berkeley

BIBLIOGRAPHY - JOAQUIN RUIZ

Peer-Reviewed Publications

- Ruiz, J., Kesler, S.E., Jones, L.M., and Sutter, J.F., 1980, Geology and geochemistry of the Las Cuevas fluorite deposit, San Luis Potosi, Mexico: *Econ. Geol.* 75, 1200-1209.
- Kesler, S.E., Ruiz, J., and Jones, L.M., 1983, Strontium isotope geochemistry of fluorite mineralization, Coahuila, Mexico: *Isotope Geoscience* 1, 65-75.
- Ruiz, J., Jones, L.M., and Kelly, W.C., 1984, Rb-Sr dating of ore deposits hosted by Rb-rich rocks using calcite and other common Sr minerals: *Geology* 12, 259-262.
- Huspeni, J.R., Kesler, S.E., Ruiz, J., Tuta, Z., Sutter, J.F., and Jones, L.M., 1984, Petrology and geochemistry of rhyolitic rocks associated with tin mineralization, northern Mexico: *Econ. Geol.* 79, 87-105.
- Ruiz, J., Kesler, S.E., and Jones, L.M., 1985, Strontium isotope geochemistry of fluorite mineralization associated with fluorine rich igneous rocks from the Sierra Madre Occidental, Mexico: Possible exploration significance: *Econ. Geol.* 80, 33-42.
- Swart, P., Ruiz, J., and Holmes, C.W., 1987, Timing of dolomitization of carbonates in the Bahamas based on Sr isotopes: *Geology* 15, 262-265.
- Ganguly, J., and Ruiz, J., 1987, Time-temperature relation of mineral isochrons: A thermodynamic model and illustrative examples for the Rb-Sr system: *Earth Planet. Sci. Lett.* 81, 338-348.
- Patchett, P.J., and Ruiz, J., 1987, Nd isotopic ages of crust formation and metamorphism in the Precambrian of eastern and southern Mexico: *Contrib. Min. Pet.* 96, 523-528.
- Krebs, C., and Ruiz, J., 1987, Petrology of the Canelo Hill volcanics: *Arizona Geology Digest* 18, 139-151.
- Ruiz, J., Patchett, P.J., and Ortega-Gutiérrez, F., 1988 Proterozoic and Phanerozoic basement terranes of Mexico from Nd isotopic studies: *GSA Bull.* 100, 274-281.
- Ruiz, J., Patchett, P.J., and Arculus, R.J., 1988, Nd-Sr isotope composition of lower crustal xenoliths — evidence for the origin of felsic volcanic rocks in Mexico: *Contrib. Min. Pet.* 99, 36-43.
- Ruiz, J., Richardson, K., and Patchett, P.J., 1988, Strontium isotope geochemistry of fluorite, calcite and barite from the Cave-in-Rock District, Illinois: *Econ. Geol.* 83, 203-210.
- Vahrenkamp, V.C., Swart, P.K., and Ruiz, J., 1988, Constraints and interpretation of $^{87}\text{Sr}/^{86}\text{Sr}$ ratios in Cenozoic dolomites: *Geophys. Res. Lett.* 15, 385-388.
- Grant, G., and Ruiz, J., 1988, Geochemistry of the San Francisco del Oro district, Mexico: *Econ. Geol.* 83, 1683-1702.
- Tuta, Z., Sutter, J.H., Kesler, S.E., and Ruiz, J., 1988, Geochronology of mercury, tin, and fluorite mineralization in northern Mexico: *Econ. Geol.* 83, 1931-1942.
- Kesler, S.E., Jones, L.M., and Ruiz, J., 1988, Strontium isotopic geochemistry of Mississippi Valley-type deposits, east Tennessee: Implications for age and source of mineralizing brines: *GSA Bull.* 100, 1300-1307.
- Kesler, S.E., Jones, L.M., and Ruiz, J., 1988, Strontium and sulfur isotopic geochemistry of the Galeana barite district, Nuevo Leon, Mexico: *Econ. Geol.* 83, 1907-1917.
- Megaw, P.K.M., Ruiz, J., and Titley, S.R., 1988, The high temperature carbonate hosted deposits Ag-Pb-Zn(Cu) of northern Mexico: *Econ. Geol.* 83, 1856-1885.

- Roddy, M.S., Reynolds, S.J., Smith, B.M., and Ruiz, J., 1988, K-metasomatism and detachment fault related mineralization, Harcuvar Mountains, Arizona: *GSA Bull.* 100, 1627-1639.
- Roberts, S.J., and Ruiz, J., 1989, Geochemical zonation and evolution of the lower crust in Mexico: *J. Geophys. Res.* 94, 7961-7974.
- Patchett, P.J., and Ruiz, J., 1989, Nd isotopes of Grenville-age rocks in Texas: Implications for Proterozoic evolution of the United States midcontinent region: *J. Geology* 97, 685-695.
- Ruiz, J., Patchett, P.J., and Arculus, R.J., Origin of the Sierra Madre Occidental volcanics based on Nd-Sr isotopes of lower crustal xenoliths: Reply to comment by Cameron and Robison: *Contrib. Min. Pet.* 104, 615-618.
- Hayob, J.L., Essene, E.J., Ruiz, J., Ortega-Gutiérrez, F., and Aranda-Gomez, J., 1989, Young granulites from the base of the crust in central Mexico: *Nature* 342, 265-268.
- Hayob, J.L., Essene, E.J., and Ruiz, J., 1990, Young granulites from the base of the crust in Mexico: Reply to Comments by Hurley and Barnycoat: *Nature* 347, 133-134.
- Ruiz, J., Patchett, P.J., and Arculus, R.J., 1990, Reply to "Comments on Nd-Sr isotopic compositions of lower crustal xenoliths — Evidence for the origin of mid-Tertiary felsic volcanics in Mexico" by K.L. Cameron and J.V. Robinson: *Contrib. Min. Pet.* 104, 615-618.
- Yañez, P., Ruiz, J., Patchett, P.J., Ortega-Gutiérrez, F., and Gehrels, G., 1991, Isotopic studies of the Acatlan complex, southern Mexico: Implications for Paleozoic North American tectonics: *GSA Bull.* 103, 817-828.
- Tingley, D.G., Christiansen, E.H., Best, M.G., and Ruiz, J., 1991, Tertiary minnette and melanephelinite dikes, Wasatch Plateau, Utah: Records of mantle heterogeneity and changing stress orientations: *J. Geophys. Res. Special Issue on Mid-Tertiary Cordilleran Magmatism*, 96, 13,529-13,544.
- McCandless, T.E., and Ruiz, J., 1991, Osmium isotope systematics of the Bushveld Intrusion: *Geology* 19, 1225-1228.
- Vahrenkamp, V.C., Swart, P.K., and Ruiz, J., 1991, Episodic dolomitization of Late Cenozoic carbonates in the Bahamas: Evidence from strontium isotopes: *J. Sed. Petrol.* 61, 1002-1014.
- Duffield, W.A., and Ruiz, J., 1992, Compositional gradients in large reservoirs of silicic magmas as evidenced by ignimbrites versus Taylor Creek rhyolite lava domes: *Contrib. Min. Pet.* 107, 453-470.
- Duffield, W.A., and Ruiz, J., 1992, Evidence for the reversal of gradients in the uppermost parts of silicic magma chambers: *Geology* 20, 1115-1118.
- McCandless, T.E., Ruiz, J., and Campbell, A.R., 1993, Re behavior in molybdenite in hypogene and near surface environments: Implications for Re-Os geochronometry: *Geochim. Cosmochim. Acta* 57, 889-906.
- Centeno-Garcia, E., Ruiz, J., Coney, P.J., Patchett, P.J., and Ortega-Gutiérrez, F., 1993, Guerrero terrane of Mexico: Its role in the Southern Cordillera from new geochemical data: *Geology* 21, 419-422.
- McCandless, T.E., and Ruiz, J., 1993, Rhenium-osmium evidence for regional mineralization in southwestern North America: *Science* 261, 1282-1286.
- Centeno-Garcia, E., Ruiz, J., Coney, P.J., and Patchett, P.J., 1993, Reply to comments by Monod et al.: *Geology* 21, 419-422.
- Centeno-Garcia, E., Ruiz, J., Coney, P.J., Patchett, P.J., and Ortega-Gutiérrez, F., 1994, Guerrero terrane of Mexico: Its role in the southern Cordillera from new geochemical data — Reply to comments by Monod et al.: *Geology* 22, 478.

- Gleason, J.D., Patchett, P.J., Dickinson, W.R., and Ruiz, J., 1994, Nd isotopes link Ouachita turbidites to Appalachian sources: *Geology* 22, 347-350.
- Hollocher, K., Spencer, J., and Ruiz, J., 1994, Composition changes in ash flow cooling unit during K-metasomatism, west central Arizona: *Econ. Geol.* 89, 887-888.
- Hollocher, K., and Ruiz, J., 1995, Major and trace element determinations on NIST glass standards 611, 612, 614 and 1834 by inductively coupled plasma mass spectrometry: *Geostandards Newsletter* 16.
- Hollocher, K., Fakhry, A., and Ruiz, J., 1995, Trace element determinations for BHVO-1 basalt and NIST rock standards 278, 688 and 694 by inductively coupled plasma mass spectrometry: *Geostandards Newsletter* 17.
- Gleason, J.D., Patchett, P.J., Dickinson, W.R., and Ruiz, J., 1995, Nd isotopes link Ouachita turbidites to Appalachian sources: *GSA Bull.* 106 34-54.
- Ortega-Gutierrez, F., Ruiz, J., Centeno-Garcia, E., 1995, Oaxaquia - A Proterozoic microcontinent in Mexico: *Geology* 24, 136-198.
- Duffield, W., Ruiz, J., and Webster, 1996, Roof-rock contamination of silicic magma chambers: *J. Volcanology* 70, 237-197.
- Ghazi, A.M., McCandless, T.M., Vanko, D.A., and Ruiz, J., 1966, New quantitative approach in trace elemental analysis of single fluid inclusions: Applications of laser ablation inductively coupled plasma mass spectrometry (LA-ICPMS): *J. Atomic Spectrom.* 11, 667-674.
- Lapierre, H., Dupuis, V., Mercier de Lepiney, B., Tardy, M., Ruiz, J., Maury, R., Hernandez, J., and Loubet, M., 1997, Is the Lower Duarte Igneous Complex (Hispaniola) a remnant of the Caribbean plume-generated oceanic plateau?: *J. Geology* 105, 111-120.
- Gleason, J.D., Patchett, P.J., Dickinson, W.R., and Ruiz, J., 1997, Nd isotopic constraints on sedimentary sources of the Ouachita-Marathon fold belt: *GSA Bull.* 109, 779-787.
- Restrepo, P., Ruiz, J., Gehrels, G.E., and Cosca, M., 1997, Geochronological, geochemical and isotopic data from Grenvillian-aged rocks in the Colombian Andes: New constraints for Late Proterozoic-Early Paleozoic continental reconstructions: *Earth Planet. Sci. Lett.* 150, 427-441.
- Freydier, C., Ruiz, J., Chesley, J.T., and McCandless, T.M., 1997, Re-Os dating of sulfides from felsic ore deposits: *Geology* 25, 775-778.
- Ruiz, J., Freydier, C., McCandless, T.M., Chesley, J.T., and Munizaga, F., 1997, Re-Os systematics of sulfides from base metal porphyry and manto-type mineralization in Chile: *International Geology Review* 39, 317-324.
- McCandless, T.E., Lajack, D.J., Ruiz, J., and Ghazi, A.M., 1997. Trace element determination of single fluid inclusions in quartz by laser ablation ICP-MS: The Santa Eulalia Pb-Zn-Ag District, Sonora, Mexico: *Geostandards Newsletter* 21, 279-287.
- McCandless, T.E., Baker, M.E., and Ruiz, J., 1997, Trace element analysis of natural gold by laser ablation ICPMS: A combined external/internal standards approach: *Geostandards Newsletter* 21.
- Chesley, J.T., and Ruiz, J., 1998, Crust-mantle interactions in large igneous provinces: Implications from Re-Os isotope systematics: *Earth Planet. Sci. Lett.* 154, 1-11
- Righter, K., Chesley, J.T., Geist, D., and Ruiz, J., 1998, Behavior of Re during magma fractionation: An example from Volcan Alcedo, Galapagos: *J. Petrology* 39, 785-795.
- Bouse, R.M., Ruiz, J., Titley, S.R., Tosdal, R.M., and Wooden, J.L., 1999, Pb isotopic compositions of Late Cretaceous-Early Tertiary igneous rocks and sulfide mineralization in

- Arizona: Implications for the sources of plutons and metals in porphyry copper deposits: *Econ. Geol.* 94, 211-244.
- McCandless, T.E., Ruiz, J., Adair, B.I., and Freydier, C., 1999, Re-Os and Pd/Ru variations in chromitites from the Critical Zone, Bushveld Complex, South Africa: *Geochim. Cosmochim. Acta* 63, 911-924.
- Mathur, R., Ruiz, J., and Tornos, F., 1999, Age and source of the ore at Tharsis and Rio Tinto, Iberian Pyrite Belt: *Mineralium Deposita* 34, 790-793.
- Valencia-Moreno, M., Ruiz, J., and Roldan-Quintana, J., 1999, Geochemistry of Laramide granitic rocks across the southern margin of the Paleozoic North America continent, central Sonora, Mexico: *International Geology Review* 41, 845-857.
- Ruiz, J., Tosdal, R., Restrepo, P., and Murillo, G., 1999, Pb isotope evidence for Colombia-Southern Mexico connections in the Proterozoic: *Geological Society of America Special Paper* 336. *Laurentia-Gondwana Connections before Pangea*, Ramos and Keppie, eds. p.183-197.
- Mathur, R., Ruiz, J., and Munizaga, F., 2000, Relationship between copper tonnage and Os isotopic ratios of base metal deposits of Chile: *Geology* 28, 555-558
- Mathur, R., Ruiz, J., Tittley, S., Gibbins, S., and Margomoto, W., 2000, Different crustal sources for Au-rich and Au-poor ores of the Grasberg Cu-Au porphyry deposit, *Earth and Planetary Science Letters*, v. 183; 1-2, 7-14.
- Freydier C, Lapierre H, Ruiz, J, Tardy. M, Martinez, J, Coulon C, 2000, The early Arperos basin: An oceanic domain separating the Guerrero Terrane from from nuclear Mexico evidenced by the geochemistry of lavas and sediments. *Journal of South American Geology* 14-325-336.
- Kirk J, Ruiz J, Chesley J, Tittley S, Walshe J, 2001, A detrital model for the origin of gold and sulfides in the Witswaterrand basin based on Re-Os isotopes. *Geochimica et Cosmochimica Acta* 65, 13, 2149-2159.
- Martin Moreno, V, Ruiz J, Patchett PJ, Zurcher L, 2001, A chemical and isotopic study of the Laramide granitic belt of northwester Mexico: identification of the southern edge of North America Precambrian Basement, *Geological Society of America Bull.* 113, 1409-1422.
- Conrey, R. M., Hooper, P. R., Larson, P. B., Chesley, J. T., and Ruiz, J. (2001) Trace element and isotopic evidence for two types of crustal melting beneath a high cascade volcanic center, Mt. Jefferson, Oregon. *Contrib. Min. Petrol.* 141, 710-732.
- Kirk J, Ruiz J, Chesley J, Walshe J, and England, 2002, A major Archean Gold and crust forming event in the Kaapvaal Craton, South Africa, *Science* 13: 297: 1856-1858.
- Chesley, J.T., Ruiz, J., Righter, K., Ferrari L. and Gomez-Tuono, A. (2002) Source Contamination versus Assimilation: An example from the Trans-Mexican Volcanic Arc. *Earth Planet Science Lett.* 195, 211-221
- Righter, K., Chesley, J.T., and Ruiz, J., (2002), Genesis of primitive arc basalt: constraints from Re, Os and Cl on the depth of melting and the role of fluids. *Geology* 30, 7, 619-622.
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