

Effective January 1, 2011

**JEAN MORRISON**

University Provost and Chief Academic Officer  
Professor of Earth Sciences  
Boston University  
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**PERSONAL**

Born in New Milford, Connecticut. Married to J. Lawford Anderson; 2 children,  
born 1995, 1998

**EDUCATION**

Ph.D., University of Wisconsin, Madison, 1988; Geochemistry, metamorphic petrology  
M.S., University of Georgia, Athens, 1983; Geology, paleomagnetism  
B.A., Colgate University, 1980; Geology

**PROFESSIONAL EXPERIENCE**

**Boston University**

University Provost and Chief Academic Officer 1/2011 to present

**University of Southern California**

Executive Vice Provost for Academic Affairs 5/2010 to 12/2010  
Vice Provost for Academic Affairs and Graduate Programs 2009 to 2010  
Vice Provost for Graduate Programs 2006 to 2009  
Associate Vice Provost for Graduate Program 2005 to 2006  
Associate Dean, The USC Graduate School 2003 to 2005  
Founding Director, USC Women in Science and Engineering  
(WiSE) Program 2002 to 2010  
Professor, University of Southern California 2005 to 2011  
Visiting Associate Professor, California Institute of Technology 1996 to 1997  
Associate Professor, University of Southern California 1995 to 2005  
Assistant Professor, University of Southern California 1988 to 1995

**SERVICE, AWARDS, HONORS**

Association of American Universities (AAU) Association of Graduate  
Schools (AGS), President (elected) 2010  
Association of American Universities (AAU) Association of Graduate  
Schools (AGS), Vice President and President-Elect (elected) 2009 to 2010  
Association of American Universities (AAU) Association of Graduate  
Schools (AGS), Executive Committee, Member (elected) 2007 to 2009  
Council of Graduate Schools, Government Relations  
Advisory Committee, Member 2007 to 2010  
Mineralogical Society of America, Councilor-at-large (elected) 2006 to 2009  
University of Wisconsin, Department of Geology & Geophysics,  
Board of Visitors, Member 2001 to 2008

Editor, <i>Journal of Metamorphic Geology</i>	1997 to 2005
Associate Editor, <i>Geological Society of America Bulletin</i>	1998 to 2001
Associate Editor, <i>American Mineralogist</i>	1994 to 1996
National Science Foundation, Committee of Visitors, Review of the ADVANCE Program in the HRD Division, Member	2008
National Science Foundation, Division of Earth Sciences, Funding panel in Tectonics, Member	2002 to 2004
National Science Foundation, Graduate Research Fellowship Program, Funding panel in Earth Sciences, Member	2001 to 2003
USC Associates Award for Excellence in Teaching*	2002
Sigma Chi Professor of the Year	2000
Sigma Gamma Epsilon, Excellence in Teaching Award	2000

\* USC's highest award for teaching.

### **SIGNIFICANT USC SERVICE**

Council of Deans of Academic Affairs, Chair	2006 to 2009
Provost's Council, Member	2005 to 2010
University Committee on Curriculum (UCOC), Ex-officio member	2005 to 2010
Provost's Graduate Student Advisory Committee, Chair	2005 to 2007
University Committee on Academic Policies and Procedures (CAPP), Ex-officio member	2005 to 2010
Provost's Student Health Center Committee, Member	2006 to 2008
Provost's Task Force on Graduate Education, Co-chair	2005 to 2006
Provost's Task Force on Diversity and Faculty Development, Member	2005 to 2006

### **ADDITIONAL USC SERVICE**

#### **2003-2004**

Provost's Academic Leadership Development Committee, Chair  
University Committee on Fellowships, Prizes and Awards, Ex-officio member

#### **2002-2003**

Provost's Academic Leadership Development Committee, Chair  
University Committee on Academic Policies and Procedures, Member  
Academic Senate Task Force on Gender Equity, Member

#### **2001-2002**

Provost's Women in Science and Engineering Task Force, Member  
University Committee on Academic Policies and Procedures, Member  
Academic Senate, Rules, Membership, and Elections Committee, Member

USC College Faculty Council, Member (elected)  
USC College Faculty Council, Faculty Caucus, Chair  
Thematic Options (honors general education) Advisory Board, Member

**2000-2001**

Provost's Women in Science and Engineering Task Force, Member  
Thematic Options (honors general education) Advisory Board, Member  
Department of Earth Sciences, Space Committee, Member

**1999-2000**

University Undergraduate Curriculum Committee, Science and Engineering Panel, Member  
Department of Earth Sciences, Executive Committee, Member  
Department of Earth Sciences, Space Committee, Member

**1998-1999**

University Undergraduate Curriculum Committee, Science and Engineering Panel, Member

**1997-1998**

University Writing Committee, Member  
Preview USC, Keynote Speaker  
Department of Earth Sciences, Executive Committee, Member

**Selected university and professional service prior to 1997**

Department of Earth Sciences, Executive Committee, Member  
Co-organizer of USC-UCLA-CIT "Freeway Seminar"  
Departmental Undergraduate advisor, 1991-1995  
Departmental Undergraduate co-advisor, 1988-1991

## PROFESSIONAL AFFILIATIONS

Mineralogical Society of America, Fellow  
American Geophysical Union, Member  
Geological Society of America, Member

## GRANTS

### Administrative

National Science Foundation Grant SES-0750160: "Collaborative Research: SBES Alliance: Diversifying Graduate Education in the Social, Behavioral, and Economic (SBE) Sciences." J. Morrison, \$260,000, October 1, 2007 to September 30, 2010.

Council of Graduate Schools Ph.D. Completion Project: "Ph.D. Completion Project at the University of Southern California." J. Morrison, \$15,000, May 1, 2007 to November 30, 2009.

National Science Foundation Grant SES-0549026: "Collaborative Proposal: Diversifying Graduate Education in the Social, Behavioral, and Economic Sciences." J. Morrison, \$240,000, October 1, 2005 to September 30, 2008.

### Scientific

NSF Grant EAR-98-11872: "Fluid induced fault-zone refrigeration: petrologic, isotopic and thermal modeling constraints." J. Morrison and C.G. Sammis, \$193,081, January 1, 1999-December 31, 2001.

NSF Grant EAR-96-14670: "Oxygen isotope laser probe evaluation of magmatic versus subsolidus epidote." J. Morrison and J.L. Anderson, \$110,525, January 1, 1997-December 31, 1999.

NSF Grant EAR-95-28947: "Technician support for the stable isotope laboratory at the University of Southern California." J. Morrison, \$80,000, January 1, 1996-December 31, 1999.

NSF Grant EAR-93-16651: "The role of fluids in brittle versus ductile deformation in the Whipple Mountains metamorphic core complex." J. Morrison, \$110,000, February 1, 1994 to July 31, 1996.

NSF Grant EAR-92-18953: "Technician support for the stable isotope laboratory at the University of Southern California." J. Morrison, \$90,000, April 1, 1993-September 30, 1996.

NSF Grant EAR-91-05924: "The role of fluids in the thermal and deformational evolution of the Whipple Mountains metamorphic core complex." J. Morrison, \$109,016, June 1, 1991-May 31, 1993. Includes a \$10,000 Research Experiences for Undergraduates supplement.

NSF Grant EAR-91-05636: “Middle to upper crustal magmatic arc construction in the Mojave province and Tujunga terrane of southern California.” J.L. Anderson and J. Morrison, Co-PI's, \$111,200, June 1, 1991-May 31, 1993.

NSF Grant EAR-91-1095: “Acquisition of an automated X-ray powder diffractometer.” J.L. Anderson and J. Morrison, Co-PI's, \$46,337, January 1, 1992-December 31, 1992.

University of Southern California Faculty Research and Innovation Fund: “Acquisition of a laser-based, in situ extraction system for the isotopic analysis of rocks and minerals.” J. Morrison, S.R. Paterson, G.A. Davis, and J.L. Anderson, Co-PI's, \$15,000, July 1, 1990-June 20, 1992.

NSF Grant EAR-89-04062: “Acquisition of extraction lines for carbon, oxygen, hydrogen, and sulfur isotopic analyses of minerals.” J. Morrison, \$50,712, July 1, 1989- December 31, 1991.

University of Southern California Faculty Research and Innovation Fund: “Constraints on large scale crystal fluid movements from chlorine and fluorine contents of hydrous minerals.” J. Morrison, \$7,000, January 1, 1989 - December 31, 1989.

## STUDENTS AND POST-DOCTORAL ADVISEES AT USC

Michael D. Roberts, 2004-2006	Post-doctoral advisee
Keegan Schmidt, 2000-2001	Post-doctoral advisee
Edward D. Young, 1989-1990	Post-doctoral advisee
Yuet-Ling O'Connor, Ph.D., 1998	Ph.D. student
Eric Hovanitz, Ph.D., 1998	Ph.D. student
Julie C. Francis, M.S., 1997	M.S. student
Harold V. Ekstrom, M.S., 1992	M.S. student
Joyjeet Bhowmik, M.S., 1992	M.S. student
Steven Keane, B.S. 1994	Undergraduate student

In addition, I have served as a committee member on ~8 Ph.D. students committees and ~10 M.S. student committees since 1988 in petrology-geochemistry and structure tectonics.

## COURSES TAUGHT AT USC

### Undergraduate courses

- Planet Earth (GEOL 105L) Introduction to Geology, ~200 students.
- Process of Change in Science (CORE 103) Origins of the Earth, solar system and universe, Honors General Education class, ~40 students.
- Mineralogy and Petrology I (GEOL 215aL) Mineralogy, geology majors, 3-12 students.
- Mineralogy and Petrology II (GEOL 215bL) Metamorphic Petrology, geology majors, ~6 students.

### Graduate courses

- All courses are for students specializing in petrology and stable isotope geochemistry.
- Stable Isotope Geochemistry (GEOL 567)

Advanced Metamorphic Petrology (GEOL 568L)  
Topics in Igneous and Metamorphic Petrology (GEOL 599)  
Topics in Geochemistry (GEOL 599)  
Electron Microprobe Techniques (GEOL 599)

## **INVITED LECTURES AND TALKS**

### **Administrative**

Global HR Forum 2008; Creative Talents for Global Collaboration, scheduled for November 5, 2008, “Successful strategies for increasing the representation of women faculty in science and engineering”. Seoul, South Korea.

Council of Graduate School’s Annual Meeting, December 6, 2007, “The Practices of Scholarship and the Scholarships of Practice: Education Among the Doctorates”. Response to Lee F. Schulman, Opening plenary session, Seattle, Washington.

Association of America Universities (AAU), Association of Graduate Schools Annual Meeting, September 27, 2007. "Graduate Education Funding: The Changing Nature of the Federal-Higher Education Partnership". Washington, D.C.

International Society for Optical Engineering, SPIE, Women In Optics, August 27, 2007, “The Women in Science and Engineering Program at USC: Programs and Progress 2000 – 2007”. San Diego, CA.

Council of Graduate School’s Annual Meeting, December 9, 2006, “Graduate Student Parents: The Underserved Minority”. Washington, DC.

Association of America Universities (AAU), Association of Graduate Schools Annual Meeting, September 18, 2006. “The Responsible Conduct of Research, Practices and Policies at USC”. Los Angeles, CA.

American Association for the Advancement of Science (AAAS) Annual Meeting, February 16, 2007. “Enhancing Diversity in Graduate Education in the Social, Behavioral and Economic Sciences”. San Francisco, CA.

### **Scientific**

Mineralogical Society of America Reviews in Mineralogy and Geochemistry Short Course, Goldschmidt Conference, Copenhagen, June 2004, “Stable and radiogenic isotope systematics in epidote minerals”

California Institute of Technology, Geology Club Lecture, April 19, 2000, “Stable isotope investigation of the role of fluids in the thermal evolution of detachment fault systems”

Colgate University, Symposium in Honor of James McLelland, June 1, 2000 “The role of fluids in the evolution of metamorphic core complexes”

University of California, Riverside, Hewlett Club, April 6, 1999, “Oxygen isotope constraints on the origins of epidote”

- California Institute of Technology, Geoclub Lecture, February 12, 1997, "Distinguishing magmatic from metamorphic epidote: laser-probe oxygen isotope data"
- University of Michigan, Ann Arbor, The Turner Lecture, November 15, 1996, "Laser microprobe analyses of magmatic epidote from the Mt. Lowe intrusion, California"
- University of California, Riverside, February 7, 1995, "The role of fluid in the evolution of the Whipple Mountains metamorphic core complex"
- University of Georgia, Geology Club, April 12, 1994, "The role of fluid in the evolution of the Whipple Mountains metamorphic core complex"
- American Association of University Women, Math/Science Career Day for Young Women, February 27, 1993, "Careers in geology"
- University of California, Los Angeles, April 29, 1993, "The role of fluids in the evolution of the Whipple Mountain metamorphic core complex"
- University of Southern California, Department of Geological Sciences, March 22, 1993, "Carbon isotopic constraints on the generation of Cretaceous granulites in the San Gabriel Mtns."
- California Institute of Technology, Geology Club, January 29, 1992, "The role of fluids in the evolution of the Whipple Mountain metamorphic core complex"
- Colgate University, Division of Natural Sciences and Mathematics Colloquium, February 28, 1992, "The application of stable isotopes to geologic problems"
- USC-UCLA-Caltech, Freeway Seminar, November 11, 1992, "Calcite-graphite carbon isotope systematics in granulites"
- USC-UCLA-Caltech, Freeway Seminar, January 15, 1991, "Penetration of surface derived fluids in metamorphic core complexes"
- USC-UCLA-Caltech, Freeway Seminar, September 24, 1991, "Compositional constraints on the incorporation of Cl into amphiboles"
- The Branner Club of Southern California, May 10, 1990, "Archean granulites of southern India"
- USC-UCLA-Caltech, Freeway Seminar, July 24, 1990, "Halogen contents of granulite facies hydrous minerals: implications for metamorphic fluid compositions"
- Pomona College, November 6, 1990, "Fluid-rock interaction in the contact aureole of the Old Woman granodiorite, Old Woman Mountains"
- California State University, Los Angeles, May 22, 1989, "Origin of the oxygen isotope anomaly in the Marcy Anorthosite Massif, Adirondack Mountains, NY"

California Institute of Technology, Geology Club, September 28, 1988, "The origin of the unusual oxygen isotope composition of the Marcy Anorthosite Massif, Adirondack Mountains, NY"

University of California, Riverside, October 18, 1988, "Origin of the oxygen isotope anomaly in the Marcy Anorthosite Massif, Adirondack Mountains, NY"

## **PUBLICATIONS** (\* denotes student as lead author)

### **Manuscripts submitted and in revision**

Anderson, J.L., Morrison, J., Paterson, S., and Francis, J., in revision, Post-emplacement fluids and pluton thermobarometry: Mt. Stuart batholith, Washington Cascades. *Journal of Metamorphic Geology* (accepted pending final revisions).

\*Hovanitz, E. and Morrison, J., in revision, Carbon and oxygen isotope systematics of calc-silicates from the Cucamonga granulite facies metamorphic terrane, California. *Journal of Metamorphic Geology*.

### **Published refereed papers**

Ducea, M.N., Saleeby, J., Morrison, J., and Valencia, V.A. (2005) Subducted carbonates and their role in the metasomatism of mantle wedges: An example from California, *American Mineralogist* v. 90, p. 864-870.

Anderson, J.L. and Morrison, J. (2005) Ilmenite, magnetite, and peraluminous Mesoproterozoic anorogenic granites of Laurentia and Baltica, *Lithos*, v. 80, p. 45-60. Invited contribution.

Morrison, J. (2004) Stable and radiogenic isotope systematics in epidote minerals. *Reviews in Mineralogy and Geochemistry*, v. 56, p. 607-625. Invited contribution.

McLelland, J., Morrison, J., Selleck, B., Cunningham, B., Olson, C. and Schmidt, K. (2002) Hydrothermal alteration of late- to post-tectonic Lyon Mountain Granitic Gneiss, Adirondack Highlands, New York: Origin of quartz-sillimanite segregations, quartz-albite lithologies, and associated Kiruna-type low-Ti Fe-oxide deposits. *Journal of Metamorphic Geology*, v. 20, p. 175-190.

\*Woods, A.D., Bottjer, D.J., Mutti, M. and Morrison, J. (1999) Lower Triassic large sea floor carbonate cements: their origin and a mechanism for the prolonged biotic recovery from the end-Permian mass extinction. *Geology*, v. 27, p. 645-648.

\*O'Connor, Y.L. and Morrison, J. (1999) Oxygen isotope constraints on the petrogenesis of the Sybille intrusion of the Proterozoic Laramie Anorthosite Complex. *Contributions to Mineralogy and Petrology*, v. 136, p. 81-91.

Morrison, J. and Anderson, J.L. (1998) Footwall refrigeration along a detachment fault: implications for thermal evolution of core complexes. *Science*, v. 279, p. 63-66.



- Lamb, W. and Morrison, J. (1997) Retrograde fluids in the Archean Shawmere Anorthosite: Kapuskasing Structural Zone, Ontario, Canada. *Contributions to Mineralogy and Petrology*, v. 129, p. 105-119.
- \*Keane, S.D. and Morrison J. (1997) Distinguishing magmatic from subsolidus epidote: laser probe oxygen isotope compositions. *Contributions to Mineralogy and Petrology*, v. 126, p. 265-274.
- Barth, A.P., Wooden, J.L., Tosdal, R.M. and Morrison, J. (1995) Crustal contamination in the petrogenesis of a calc-alkalic rock series: Josephine Mountain Intrusion, California. *Geological Society of America Bulletin*, v. 107, no. 2, p. 201-212.
- Barth, A.P., Wooden, J.L., Tosdal, R.M., Morrison, J., Dawson, D.L. and Hernley, B.M. (1995) Origin of gneisses in the aureole of the San Gabriel anorthosite complex and implications for the Proterozoic crustal evolution of southern California. *Tectonics*, v. 14, p. 736-752.
- Morrison, J. (1994) Downward circulation of meteoric water into the lower-plate of the Whipple Mountains metamorphic core complex, California. *Journal of Metamorphic Geology*, v. 12, p. 827-840.
- Morrison, J. and Hoisch, T. D. (1994) Upward flow of magmatic fluids from the Old Woman granodiorite, Old Woman Mountains, southeastern California. *Journal of Geophysical Research-Solid Earth*, v. 99, no. B5, p. 9469-9476.
- \*Ekstrom, H.V., Morrison, J. and Anderson, J.L. (1994) Petrogenetic modeling and stable isotopic evaluation of anorthosite and jotunitic to syenitic magma series in the San Gabriel anorthosite complex. *Precambrian Research*, v. 70, p. 1-24.
- Rothstein, D., Karlstrom, K., Hoisch, T.D. and Morrison, J. (1994) Synkinematic contact metasomatism: implications for the timing of pluton emplacement and regional deformation in the Scanlon shear zone, SE California. *Journal of Metamorphic Geology*, v. 12, p. 709-722.
- Morrison, J. and Barth, A. P. (1993) Empirical tests of carbon isotope thermometry in granulites from southern California. *Journal of Metamorphic Geology*, v. 11, p. 789-800.
- \*Bender, E.E., Morrison, J., Anderson, J.L. and Wooden, J.L. (1993) Early Proterozoic ties between two suspect terranes and the Mojave crustal block of the southwestern United States. *Journal of Geology*, v. 101, p. 715-728.
- \*Young, E. D. and Morrison, J. (1992) Relations among net-transfer reaction progress,  $^{18}\text{O}$ - $^{13}\text{C}$  depletion, and fluid infiltration in a clinohumite-bearing marble. *Contributions to Mineralogy and Petrology*, v. 111, p. 391-408.
- Anderson, J. L. and Morrison, J. (1992) The role of anorogenic granites in the Proterozoic crustal development of North America. *In: Proterozoic Crustal Evolution*, Condie, K. C., ed., Elsevier, p. 263-299.

- Morrison, J. and Valley, J. W. (1991) Retrograde fluids in granulites: stable isotopic evidence of fluid migration. *Journal of Geology*, v. 99, p. 559-570.
- Morrison, J. and Valley, J. W. (1988) Contamination of the Marcy Anorthosite Massif, Adirondack Mountains, N.Y.: Petrologic and isotopic evidence. *Contributions to Mineralogy and Petrology*, v. 98, p. 97-108.
- Morrison, J. and Valley, J. W. (1988) Post-granulite facies fluid infiltration in the Adirondack Mountains. *Geology*, v. 16, p. 513-516.
- Vry, J., Brown, P.E., Valley, J.W., and Morrison, J. (1988) Constraints on granulite genesis from carbon isotope compositions of cordierite and graphite. *Nature*, v. 332, p. 66-68.
- Morrison, J. and Ellwood, B. B. (1986) Paleomagnetism of Silurian and Ordovician sediments from the Valley and Ridge Province, Northwest Georgia. *Geophysical Research Letters*, v. 13, p. 189-192.

### **Other published papers**

- \*Ekstrom, H. and Morrison, J. (1992) Chemical variations accompanying detachment faulting in the Whipple Mountains, California, USA. *In: Water-Rock Interaction*, Kharaka, Y.F. and Maest, A. S., eds., Balkema, Rotterdam, v. 2, p. 1495-1498.
- \*Mayo, D., Morrison, J. and Anderson, J. L. (1992) Chemical and oxygen isotopic variations in upper-plate rocks of the Whipple Mountains detachment system, California, USA. *In: Water-Rock Interaction*, Kharaka, Y.F. and Maest, A.S., eds., Balkema, Rotterdam, v. 2, p. 1527-1532.
- Whitney, P. R., Bohlen, S. R., Carl, J. D., deLorraine, W., Isachsen, Y. W., McLelland, J., Olmsted, J. F. and Valley, J. W., with contributions from Cartwright, I., Morrison, J., Ollila, P. and Selleck, B. (1989) The Adirondack Mountains - A Section of Deep Proterozoic Crust. *Field Trip Guidebook T164*, 28th International Geological Congress, 63 p.
- Morrison, J. and Valley, J. W. (1988) Post-metamorphic fluid infiltration into granulites from the Adirondack Mountains, USA. *In: Ashwal, L.D., ed., Workshop on The Deep Continental Crust of South India*, p. 115-117. LPI Tech Rpt. 88-06. Lunar Planetary Institute, Houston.

### **Abstracts**

- Anderson, J.L. and Morrison, J. (2003) Ilmenite, magnetite, and peraluminous Mesoproterozoic granites of Laurentia. *In Granitic Systems - State of the Art and Future Avenues*, Ramo, O.T., Kosunen, P.J., Lauri, L.S. and Karhu, J.A., eds., *An International Symposium in Honor of Professor Ilmari Haapala*, January 12-14, 2003, Abstract Volume. Helsinki University Press, p. 7- 12.

- \*Schmidt, K. and Morrison, J. (2002) Complex Oxygen Isotope Systematics in the Buckskin-Rawhide Metamorphic Core Complex, Arizona: Paleo-fluid Conduits Within a Detachment Fault System? *Eos Trans. AGU*, v. 83, no. 47, p. F1399.
- Morrison, J. and Anderson, J.L. (2001) The role of fluids in the cooling of metamorphic core complexes. Geological Society of America and Geological Society of London, Earth Systems Processes, Programmes with Abstracts, p. 37.
- Foose, M.P., Morrison, J. and McLelland, J. (2001) High temperature, hydrothermal origin of low-Ti, Fe-oxide (REE-Au-U-Cu) deposits and sodic alteration, Adirondack Mts, New York, U.S.A. *Geol. Soc. America Abstr. Prog.*, v. 33, p. AX.
- Morrison, J. and Anderson, J.L. (2000) Footwall refrigeration in the Whipple Mountains Metamorphic Core Complex, CA. V.M. Goldschmidt Conference 2000, *Journal of Conference Abstracts*, v. 5, no. 2, 721.
- Morrison, J. and McLelland, J. (2000) Origin and significance of late- to post-tectonic leucogranite and associated quartz-sillimanite nodules in the Adirondack Mtns., NY, USA. **INVITED**, Abstracts of the 15<sup>th</sup> Australian Geological Convention, University of Technology, Sydney, NSW, Australia, July 3-7, no. 59, p. 357.
- McLelland, J. and Morrison, J. (2000) Quartz-sillimanite veins and nodules associated with leucogranites, Adirondack Highlands, New York State, U.S.A., Abstracts of the 15<sup>th</sup> Australian Geological Convention, University of Technology, Sydney, NSW, Australia, July 3-7, no. 59, p. 324.
- Anderson, J. L., Wooden, J. L., Barth, A. P., and Morrison, J. (2000) Cordilleran batholiths of the Mojave Crustal Province: *Geological Society of America Abstracts with Programs*, v. 32, no. 7, p. 397.
- Morrison, J., and Anderson, J. L. (2000) Oxygen Isotope Systematics of Magmatic Epidote: 31st International Geological Congress, Abstract Volume (Rio de Janeiro).
- Morrison, J., Anderson, J.L., Carlson, C. and Paterson, S. (1999) Oxygen isotope systematics in magmatic epidote-bearing volcanic and plutonic rocks. *Geol. Soc. America Abstr. Prog.*, v. 31, p. A-416.
- Anderson, J.L. and Morrison, J. (1999) 1.4 Ga Peraluminous granites of the western U.S.: An anorogenic analogue of S-type granites. **INVITED**, *Geol. Soc. America Abstr. Prog.*, v. 30, p. A-261.
- Morrison, J., Foose, M.P. and McLelland, J. (1998) High temperature, hydrothermal iron-oxide deposits and associated metasomatism at CA 1050 Ma, Adirondack Mts, NY and New Jersey Highlands. *Geol. Soc. America Abstr. Prog.*, v. 30, p. A77.
- Anderson, J.L. and Morrison, J. (1998) Oxygen isotope systematics of 1.3 to 1.6 Ga granites of Laurentia. *Geol. Soc. America Abstr. Prog.*, v. 30, p. A89.

- Luneburg, C.M., Lebit, H.D. and Morrison, J. (1998) Deformation mechanisms along the brittle-ductile Winters Pass Thrust, Clark Mountains thrust complex, CA. *Geol. Soc. America Abstr. Prog.*, v. 30, p. A133.
- McLelland, J., Foose, M.P. and Morrison, J. (1998) Oxygen isotope investigations and zircon geochronology of Low-Ti, Fe-oxide (REE-Au-Cu-U) deposits and associated high temperature Na, Fe-metasomatism, Adirondack Mts. and New York-Hew Jersey Highlands. *Eos Trans. AGU*, v. 79, p. S381.
- Morrison, J. and J.L. Anderson (1997) Footwall refrigeration in the Whipple Mountains metamorphic core complex, CA. *Geol. Soc. America Abstr. Prog.*, v. 29, p. A349.
- Morrison, J. (1997) Constraints on fluids involved in detachment faulting: a laser-microprobe study in the Whipple Mountains metamorphic core complex. **INVITED** In: *Seventh Annual V.M. Goldschmidt Conference*, p. 145, LPI Contribution No. 921, Lunar and Planetary Institute, Houston.
- Whitney, D.L. and Morrison, J. (1997) Vein-hosted fluid flow in a progressive metamorphic sequence, Dutchess County, New York. *Geol. Soc. America Abstr. Prog.*, v. 29, p. A91.
- \*Keane, S.D., Kitchen, N. and Morrison, J. (1996) Oxygen isotope evidence for the magmatic origin of epidote in the Mount Lowe intrusion, southern California. *Geol. Soc. America Abstr. Prog.*, v. 28, p. A-423.
- \*Hovanitz, E. and Morrison, J. (1996) Oxygen isotopic homogeneity and carbon isotopic heterogeneity in the Cucamonga granulite terrane, southern California. *Geol. Soc. America Abstr. Prog.*, v. 28, p. A-358.
- \*O'Connor, Y.L. and Morrison, J. (1996) Preliminary oxygen isotope data from the Sybille Monzosyenite of the Laramie Anorthosite Complex. *Geol. Soc. America Abstr. Prog.*, v. 28, p. A-376.
- Anderson, J.L., \*Francis, J. and Morrison, J. (1996) Batholith margin infiltration of contact aureole fluids. *Geol. Soc. America Abstr. Prog.*, v. 28, p. A-420.
- \*Hill, C.A., Girty, G.H., Skinner, J.E. and Morrison, J. (1996) Petrogenesis of the Emigrant Gap composite pluton, Northern Sierra Nevada, California. *Geol. Soc. America Abstr. Prog.*, v. 28, p. A-420.
- Ocampo, A., Pope, K., Fischer, A., Morrison, J., Fischer, F., Alvarez, W., King, D., Rampino, M., Webster, C. (1996) Belize K/T boundary deposits: relation to Chicxulub impact. *Geol. Soc. America Abstr. Prog.*, v. 28, p. A-182.
- \*Hovanitz, E.W. and Morrison, J. (1995) Limits on metamorphic fluids in the Cucamonga Granulite Terrane, Southern California. *Geol. Soc. America Abstr. Prog.*, v. 27, p. A-315.
- Ocampo, A.C., Pope, K.O., Fisher, A.G. and Morrison, J. (1995) Evidence in Belize for ballistic and vapor plume sedimentation from the Chicxulub impact. *Geol. Soc. America Abstr. Prog.*, v. 27, p. A-347.

- \*Keane, S.D. and Morrison, J. (1995) Oxygen isotope zonation in epidote from the Mount Lowe Intrusion, San Gabriel Mtns., California. **INVITED**, Symposium titled "What's happening in Stable Isotope Microanalysis", V.M. Goldschmidt Conference.
- Morrison, J. (1993) Meteoric water-rock interaction in lower-plate rocks of the Whipple Mtns. metamorphic core complex, SE CA. **INVITED**, Geochemical Society Symposium "Fluids and Fluid Flow in the Crust". Geol. Soc. America Abstr. Prog. v. 25, A23.
- Morrison, J. and Barth, A.P. (1993) Carbon isotope thermometry in granulites from southern California: empirical tests. Eos Trans. AGU, v. 74, p. 331.
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