

## CATHY J. BUSBY- ABBREVIATED CV

### Publications posted at:

[www.geol.ucsb.edu/faculty/busby](http://www.geol.ucsb.edu/faculty/busby)

### PERSONAL

Three daughters, born 1986 and 1989

### PROFESSIONAL PREPARATION:

University of California at Berkeley, Geological Sciences, B.S. 1977

Princeton University, Geological Sciences, Ph.D., 1983

### APPOINTMENTS:

Judd H. and Cynthia S. Oualline Centennial Lectureship in Petroleum

Geology, Jackson School of Geoscience, University of Texas at Austin, 2010-2011

Full Professor, UC Santa Barbara, 1993-present (Level 6, 2010)

U.S. Geological Survey, summer 1997, 1998

Associate Professor, UCSB, 1988-1993

Assistant Professor, UCSB, 1982-1988

Research Associate, Smithsonian Institution, 1980-1989

Research Assistant, Geochemistry, Caltech, 1981-1982

Research Assistant, Geology, Princeton University, 1978-1982

Lab Assistant, K-Ar Laboratory, UC Berkeley, 1976-1977

### 2010 – 2011 HIGHLIGHTS:

**Pardee Keynote Speaker** honoring Arthur Holmes: GSA, Fall 2011: Growth of Continents at Extensional Arcs: A View from the Upepr Crust.

**AGU lecture** Fall 2011: Siting of Large Volcanic Centers at Releasing Fault Stepovers, Walker Lane Rift.

**Convenor**, Penrose Conference “Origin and Uplift of the Sierra Nevada” (with K. Putirka), August 2010.

**Guest Editor**, Special Issue of Geosphere, Origin of the Sierra Nevada and Walker Lane (with K. Putirka), in progress (23 submissions so far).

**Textbook** in production at Wiley-Blackwell: Recent Advances in Tectonics of Sedimentary Basins (with Antonio Azor), 2012.

**Guest lecturer** in several UT Austin courses **and Field trip leader** for Jackson School graduate students, faculty and research scientists: Walker Lane Rift, Reno to Las Vegas.

**Short course** “Interpretation of Volcanic Arc Lithofacies”, Chilean Geological Survey, Santiago, March 27 – April 1, 2011.

**Invited talks:** GSA Tectonic Crossroads (Ankara, Turkey), Texas Bureau of Economic Geology, University of Texas Institute of Geophysics, Jackson School Geology Department, Baylor University, Texas Christian University, University of Houston, and University of Barcelona.

### REFERENCES

John Dewey, Distinguished Professor Emeritus: [jfdewey@ucdavis.edu](mailto:jfdewey@ucdavis.edu)

William R. Dickinson, University of Arizona: [wrdickin@dakotacom.net](mailto:wrdickin@dakotacom.net)

Ray Ingersoll, UCLA: [ringer@ess.ucla.edu](mailto:ringer@ess.ucla.edu)

Peter Lipman, U.S. Geological Survey: [plipman@usgs.gov](mailto:plipman@usgs.gov)

Eldridge Moores, Distinguished Professor Emeritus: [emmoores@ucdavis.edu](mailto:emmoores@ucdavis.edu)

Jason Saleeby, California Institute of Technology: [jason@gps.caltech.edu](mailto:jason@gps.caltech.edu)

## **TEACHING**

Summer Field Camp (Poleta folds, Long Valley, and Sierra Nevada), Volcanic Stratigraphy and Structure, Geological Catastrophes, Tectonics of Sedimentary Basins, Sedimentology and Stratigraphy, Geology of Convergent Margins and Continental Rifts, Cordilleran Tectonics, Submarine Volcanism, Turbidite Sedimentology, Sequence Stratigraphy.

## **EXTRAMURAL GRANTS IN PAST SIX YEARS:**

- NSF MARGINS proposal (pending, with Jolante Van Wijk and Paul Umhoefer), Geodynamic modeling of transtensional rift initiation, with geologic constraints from the Gulf of California and Central Walker Lane.
- NSF grant, 2011-2013, "Steady State to Flare-Up Arc Magmatism In The Largest Cenozoic Silicic Igneous Province on Earth: The Sierra Madre Occidental, Mexico (\$220,000).
- Spanish Ministry of Education research grant, Spring 2010: "Recent Advances in Tectonics of Sedimentary Basins" (3,000 Euros).
- NSF supplemental grant, 2010 - 2011, "Geologic constraints on landscape evolution of the Sierra Nevada, California: Paleochannels, Magmatism and Structure" (\$30,000).
- UC Mexus grant (with Elena Centeno Garcia), 2009-2010, Transition from steady state to flareup arc magmatism in the largest Cenozoic silicic igneous and epithermal deposit on Earth: Sierra Madre Occidentale, Mexico (\$25,000).
- NSF grant, 2007 - 2010, "Geologic constraints on landscape evolution of the Sierra Nevada, California: Paleochannels, Magmatism and Structure" (\$225,000).
- NSF grant (with Keith Putirka, CSUF), 2007 - 2009, Collaborative Research: Origin and Significance of High-Potassium Volcanism: Insights from the Ancestral Cascades Arc, California (\$160,000 to Busby and \$160,000 to Putirka).
- GeoEarthScope geochronology grant, 2007 - 2010, "Geologic constraints on landscape evolution of the Sierra Nevada, California: Paleochannels, Magmatism and Structure" (to Berkeley Geochronology Center for Busby's dating, \$30,000).
- USGS-EDMAP grant, 2009, "Landscape evolution of the Sierra Nevada, California: Paleochannels, magmatism and structure" (\$27,000).
- Spanish Ministry of Education research grant, July 2007 – 2008: "Neogene Tectonics and Sedimentation in the Betic Cordillera, Spain" (32,500 Euros).
- USGS EDMAP grant, 2006, Spatial Variation in Structural Styles along the Central Sierra Nevada Range Front (California): Clues from Volcanic Stratigraphy (\$15,000).
- NSF Grant (PI C. Busby and Co-PI P. Gans), 2002-2005, Miocene Volcanism in the Sierra Nevada, California: Stratigraphy, Volcanology, Geochronology and Structure (\$300,000), collaborative with Ian Skilling (University of Mississippi, \$100,000).
- UC Mexus grant, 2005-2006 (with Elena Centeno Garcia, UNAM, Mexico): Exotic vs. Fringing Arcs: Implications for the Growth of Continents (\$15,000 to Busby and \$10,000 to Centeno Garcia).
- USGS EDMAP grant, 2005, Geologic Mapping of the Central Sierran Frontal Fault System with Implications for the Tahoe Basin and the Carson City-Bridgeport Population Corridor (\$30,000).

USGS EDMAP grant, 2003, Geologic mapping of Tertiary volcanic-volcaniclastic rocks in the northern Sierra Nevada: Paleotopographic and structural evolution (\$30,000).

#### **INDUSTRY RESEARCH AND EXPLORATION SUPPORT IN PAST TWO YEARS:**

GeoGlobal Energy LLC, 2011 (pending), "Volcanic Stratigraphy and Structure of the Puchidiza Geothermal District, Chilean Andes, Phase II" (\$150,000).

Energy Source LLC, Salton Trough California, Hudson Ranch Geothermal Power Facility: Quaternary to Recent tephra and lava domes, January 2011 to present (exploration).

Hannon Armstrong LLC, 2010, "Volcanology of the Eastern Snake River Plain, Idaho", June 2010 to present (geothermal exploration).

GeoGlobal Energy LLC, 2009-2010, "Volcanic Stratigraphy and Structure of the Puchidiza Geothermal District, Chilean Andes". \$90,000 in professional fees (to PI and graduate student researcher) plus full financial and logistical support for 2 months of field work, sample shipping, geochemistry, thin sections and Ar/Ar geochronology (estimated total value \$150,000).

Paramount Gold and Silver, 2008, "Volcanology and Structural Geology of the Guazapares Mining District, Sierra Madre Occidental, Mexico". Summer salary to PI, 9 months of graduate student researcher support, plus full financial and logistical support for 3 months of field work, sample shipping and thin sections (estimated total value, \$200,000).

#### **CURRENT AND RECENT PROFESSIONAL SERVICE:**

Chair (2010-2011) and First Vice Chair (2009 – 2010), Mineralogy Petrology Geochemistry and Volcanology Division of the Geological Society of America.

Penrose Conference Organizer (with Keith Putirka), "Origin and Uplift of the Sierra Nevada", August 16 – 20, 2010 (included 2 days of formal field trips and 2 days of informal field trips, 2 days of them led by Busby).

California Geologic Mapping Advisory Committee, Sacramento (meets twice annually).

National Science and Engineering Council of Canada (NSERC), Earth Sciences, Research Awards Committee, 2007 – 2009 (reading and scoring of 80-120 proposals across a broad spectrum of Earth Science, and week-long panel).

#### **GRADUATE STUDENTS COMPLETED IN LAST SIX YEARS:**

Grant Yip, MS, 2003 (Exxon Mobil); Noah Garrison, MS, 2004 (Attorney in Environmental Protection); Hilario Camacho, PhD, 2004 (Signal Hill Petroleum); Fabrice Roulet, MS, 2006 (Amarada Hess Petroleum); Stephen DeOreo, MS, 2006; Carolyn Gorny, Senior Honors Thesis, 2008 (PhD student at Otago University); Megan Gambs, Senior Honors Thesis, 2009 (PhD student at University of Washington, Seattle); Jeanette Hagan (BS, Cal Tech), PhD, 2010 (Exxon Mobil); Alice Koerner (BS, Georgia Tech), MS, 2010.

#### **RECENT EXTRAMURAL EDUCATIONAL PROGRAMS:**

SPANISH MINISTRY OF EDUCATION GRANT, 2007 – 2008, University of Granada, Spain, Geodynamics Department: lectures in graduate courses and department seminars, and participation in field research trips in the Betic Cordillera.

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS DISTINGUISHED LECTURER, 2001-2002: six weeks of lectures in the U.S. and Canada.

#### **SHORT COURSES:**

*Tectonics of Sedimentary Basins* (with R.V. Ingersoll): A.A.P.G.-S.E.P.M. Annual Meeting, 1996; I. A. S. International Congress, Spain, 1998; A.A.P.G.-S.E.P.M. Annual Meeting, 1998; Second Latinamerican Sedimentological Congress, Argentina, 2000; NORFA North European PhD Training Course, Norway, 2000.

*State-of-the-Art Turbidites* (with Ben Kneller): Arco British, May 1996; BHP, May 1998.

*Submarine Volcanism*: Universidad Nacional Autónoma de México, March 2005.

*Tectonics and Turbidite Sedimentation*: Japanese Oil, Gas and Metals National Corporation, August 2006.

*Interpretation of Volcanic Arc Lithofacies*: Chilean Geological Survey, March 2011.

#### **RECENT ORGANIZED FIELD TRIPS LED:**

Penrose Conference field trips (2 days), "Origin and Uplift of the Sierra Nevada", August, 2010.

Sierra Nevada Earthscope – Sierra Drip Continental Dynamics Meeting, Central Sierra, Fall 2006.

National Association of Geoscience Teachers, Fall 2006.

#### **RECENT KEYNOTE/INVITED ADDRESSES:**

Tectonic Crossroads, Geological Society of America, Ankara, Turkey, 2010; International Sedimentological Congress, Patras, Greece 2007; International Sedimentological Congress, Fukuoka, Japan, 2006; Penrose Conference on Arc Collisions, 2005

#### **RECENT SYNERGISTIC ACTIVITIES:**

Co-chair of Senior Women's Council at UCSB, 2006-2007; Member of Chancellor's Advisory Committee on the Status of Women, UCSB, 2006-2007

#### **BOOKS PUBLISHED:**

Recent Advances in Tectonics of Sedimentary Basins, **2012 in press**, C.J. Busby and A. Azor (eds.), 32 chapters, Wiley-Blackwell Publishing.

Tectonics of Sedimentary Basins, 1995, C.J. Busby and R.V. Ingersoll (eds.), Blackwell Science, Oxford, 579 pp.

#### **RECENT SPECIAL ISSUES EDITED:**

Origin of the Sierra Nevada and Walker Lane, K. Putirka and C. Busby (eds.), **in progress**, Special Issue of Geosphere.

**PUBLICATIONS** (excluding abstracts; *students and postdoctoral researchers in italics*).

Papers are posted on my website at: [www.geol.ucsb.edu/faculty/busby](http://www.geol.ucsb.edu/faculty/busby)

**IN PAST SEVERAL YEARS:**

**2012**

Busby, Cathy, in press, Extensional and transtensional continental arc basins: Case studies from the southwestern U.S. and Mexico: *in*, C. Busby and A. Azor (eds), Recent Advances in Tectonics of Sedimentary Basins, to be published by Wiley-Blackwell in 2011.

Busby, Cathy, Koerner, Alice and Hagan, Jeanette, accepted, The Miocene Ancestral Cascades arc at Sonora Pass, Sierra Nevada (California): Lithostratigraphy, paleogeography and structure: submitted to Geosphere, Special Issue "Origin of the Sierra Nevada and Walker Lane", Geological Society of America (84 ms pp).

**2011**

Centeno-Garcia, E., Busby, C., Busby, M., Talavera, O. and Gerhels, G., 2011, Evolution of the Cretaceous Guerrero terrane along the Mexican margin, from extensional arc through retroarc to continental arc settings: Geological Society of America Bulletin, v. 123, no. 9/10, p. 1776-1797, doi:10.1130/B30057.1

**2010**

Busby, C.J. and Putirka, K., Penrose Conference Report: Origin and Uplift of the Sierra Nevada, California, USA: GSA Today, Geological Society of America, v. 20, no. 12, p. 18-20.

**2009**

Busby, C.J. and Putirka, K., 2009, Miocene evolution of the western edge of the Nevadaplano in the central and northern Sierra Nevada: Paleocanyons, magmatism and structure: *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 7 – 8, p. 670-701.

Gorny, C., Busby, C., Pluhar, C., Hagan, J., and Putirka, K., 2009, An in-depth look at distal Sierra Nevada paleochannel fill: drill cores through the Table Mountain latite near Knight's Ferry: *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 824-842.

Pluhar, C., Deino, A., King, N., Busby, C., Hausback, B., Wright, T., and Fischer, C., 2009, Lithostratigraphy, magnetostratigraphy, geochronology and radiometric dating of the Stanislaus Group, CA, and age of the Little Walker Caldera: *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 873-899.

Hagan, J., Busby, C., Renne, P., and Putirka, K., 2009, Cenozoic evolution of paleochannels, Ancestral Cascades magmas, and range-front faults in the Kirkwood - Carson Pass - Markleeville region (Central Sierra Nevada): *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 777-823.

Koerner, A., Busby, C., Putirka, K., and Pluhar, C., 2009, New evidence for alternating effusive and explosive eruptions from the type section of the Stanislaus Group in the "cataract" paleocanyon, central Sierra Nevada (CA): *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 962-985.

**2008**

- Busby, C., *DeOreo*, S., Skilling, I., Gans, P., and *Hagan*, J., 2008, Carson Pass-Kirkwood paleocanyon system: implications for the Tertiary evolution of the Sierra Nevada, California: Geological Society of America Bulletin, v. 120, no. 3/4, p. 274-299.
- Busby, C.J., *Hagan*, J., Putirka, K., Pluhar, C., Gans, P., *Rood*, D., *DeOreo*, S., Skilling, I. and Wagner, D., 2008, The ancestral Cascades arc: Implications for the development of the Sierran microplate and tectonic significance of high K<sub>2</sub>O volcanism: in, J. Wright and J. Shervais (eds), Ophiolites, Arcs and Batholiths: Geological Society of America Special Paper 438, p. 331-378.
- Garrison*, N., Busby, C.J., Gans, P.B., Putirka, K. and Wagner, D.L., 2008, A mantle plume beneath California? The mid-Miocene Lovejoy flood basalt, northern California: in, J. Wright and J. Shervais (eds), Ophiolites, Arcs and Batholiths: Geological Society of America Special Paper 438, p. 551-572.
- Saleeby, J., Ducea, M.N., Busby, C., Nadin, E., and Whetmore, P.H., 2008, Chronology of pluton emplacement and regional deformation in the southern Sierra Nevada batholith, California: in, J. Wright and J. Shervais (eds), Ophiolites, Arcs and Batholiths: Geological Society of America Special Paper 438, p. 397 – 428.
- Busby, C.J., "Geology of the Sierra Madre Occidental, Mexico", Large Igneous Province of the Month, posted on the IAVCEI website:  
<http://www.largeigneousprovinces.org/08nov.html>

## 2007

- Busby, C.J. and *Bassett*, K., 2007, Volcanic facies architecture of an intra-arc strike-slip basin, Santa Rita Mountains, Arizona: Bulletin of Volcanology, v. 70, no. 1, p. 85 – 103.
- Putirka, K., and Busby, C.J., 2007, The tectonic significance of high K<sub>2</sub>O volcanism in the Sierra Nevada, California: Geology, V. 35, no. 10, p. 923 – 926.
- Purucker, M., Le, G., Sabaka, T., Slavin, J., Strangeway, R., and Busby, C., 2007, Magnetic field gradients from the ST-5 constellation: Improving magnetic and thermal models of the lithosphere: Geophysical Research Letters, v. 34, L24306, doi:10.1029/2007GL031739

## 2006

- Busby, C. J., *Fackler Adams*, B., and Mattinson, J., and *De Ore*, S., 2006, View of an intact oceanic arc, from surficial to mesozonal levels: Cretaceous Alisitos Arc, Baja California, Mexico: Journal of Volcanology and Geothermal Research, v. 149, p.1 - 46.
- Busby, C.J. and Wagner, D., 2006, Mapping of Cenozoic volcanic rocks in the central high Sierra: clues to understanding landscape evolution and range-front faulting: National Association of Geoscience Teachers, Guidebook, 60 pp.

## 2005

- Busby, C.J., 2005, Possible distinguishing characteristics of deepwater silicic volcanism: Geology, v. 33, no. 11, p. 845-848.
- Busby, C.J., *Bassett*, K., Steiner, M.B. and *Riggs*, N.R., 2005, Climatic and tectonic controls on Jurassic intra-arc basins related to northward drift of North America, in, T.H. Anderson, J.A. Nourse, J.W. McKee and M.B. Steiner, (eds), The Mojave-Sonora megashear hypothesis: Development, assessment, and alternatives: Geological Society of America Special Paper 393, p. 359-376.
- Bassett*, K. and Busby, C., 2005, Structure and tectonic setting of an intra-arc strike-slip basin (Bisbee Basin, Southern Arizona): in, T.H. Anderson, J.A. Nourse, J.W. McKee and M.B. Steiner, (eds), The Mojave-Sonora megashear hypothesis: Development, assessment, and alternatives: Geological Society of America Special Paper 393, p. 359-376.

## 2004

Busby, C.J., 2004, Continental growth at convergent margins facing large ocean basins: a case study from Mesozoic Baja California, Mexico: *Tectonophysics*, v. 392, p. 241-277.

Busby, C.J., Skilling, I., Rood, D., DeOreo, S. and Gans, P., 2004, Cenozoic volcanology and structural geology of the Carson Pass – Sonora Pass areas, Central Sierra Nevada, California: Field Guide, Volcanological Society of Sacramento Annual Field Trip, July 21-25, 2004.

### **2003**

Busby, C.J., Kessel, L., Schulz, K., Foose, M., and Slack, J., 2003, Volcanic setting of the Ordovician Bald Mountain Massive Sulfide Deposit, Northern Maine: in, W. Goodfellow, S.R. McCutcheon and J.M. Peter (eds.), *Massive Sulfide Deposits of the Bathurst Mining Camp, New Brunswick and Northern Maine: Economic Geology Monograph 11*, p. 219-244 plus 2 large plates in back pocket.

Kessel, L. and Busby, C.J., 2003, Analysis of VHMS-Hosting Ignimbrites Erupted at Bathyal Water Depths (Ordovician Bald Mountain Sequence, Northern Maine), in, J. White, J. Smellie and D. Clague (eds.), *Explosive Subaqueous Volcanism: American Geophysical Union, Geophysical Monograph Series*, v. 140, p. 372-392.

Foose, M.F., Slack, J.F., Busby, C.J., Schulz, K.J. and Scully, M.V., 2003, Geologic and structural setting of the Bald Mountain volcanogenic massive sulfide deposits, northern Maine - CU-Zn-Au-Ag mineralization in a synvolcanic sea floor graben: in, W. Goodfellow, S.R. McCutcheon and J.M. Peter (eds.), *Massive Sulfide Deposits of the Bathurst Mining Camp, New Brunswick and Northern Maine: Economic Geology Monograph 11*, p. 497-512.

### **2002**

Busby, C.J., Yip, G., Blikra, L., and Renne, P., 2002, Pacific margin example of catastrophic sedimentation triggered by K/T bolide impact: *Geology*, v. 30, p. 687– 690.

Busby, C.J., Schermer, E.R. and Mattinson, J.M., 2002, Extensional arc setting and ages of Middle Jurassic eolianites, Cowhole Mountains (Mojave Desert, CA): *GSA Memoir 195* (A. Glazner, J.D. Walker and J.M. Bartley, eds), *Geologic Evolution of the Mojave desert and Southwestern Basin and Range*, p. 79 – 92.

Camacho, H., Busby, C.J., and Kneller, B.C., 2002, A new depositional model for the classical turbidite locality at San Clemente State Beach, California: *American Association of Petroleum Geologists Bulletin*, v. 86, no. 9, p. 1543-156

Schermer, E.R., Busby, C.J. and Mattinson, J.M., 2002, Paleogeographic and tectonic implications of Jurassic sedimentary and volcanic sequences in the west-central Mojave desert; *GSA Memoir 195, Mojave Desert* (A. Glazner, J.D. Walker and J.M. Bartley, eds) p. 93 – 116.

Critelli, S., Marsaglia, K., and Busby, C., 2002, Tectonic and sedimentary controls on the composition of backarc volcanoclastic rocks; *Geological Society of America Bulletin*, v. 114, no. 5, p. 515 – 527

### **SELECTED PUBLICATIONS GREATER THAN SIX YEARS OLD:**

Busby, C.J., Smith, D.P., Morris, W.R. and Adams, B., 1998, Evolutionary model for convergent margins facing large ocean basins: Mesozoic Baja California (Mexico): *Geology*, v. 26, no. 3, p. 227-230.

Fackler-Adams, B.N. and Busby, C.J., 1998, Structural and stratigraphic evolution of extensional oceanic arcs: *Geology*, v. 26, no. 8, p. 735-738.

- Adams, B.N., Busby, C.J. and Mattinson, J.M., 1997, Jurassic magmatism and sedimentation in the Palen Mountains, southeastern California: Implications for regional tectonic controls on the Mesozoic magmatic arc: Geol. Soc. America Bull., v. 109, p. 1464-1484.*
- Schermer, E. R. and Busby, C. J., 1994, Jurassic magmatism in the central Mojave Desert: implications for arc paleogeography and preservation of continental volcanic sequences: Geol. Soc. America Bull., v. 106, p. 767-790.*
- Smith, D. P., and Busby, C. J., 1993a, Mid-Cretaceous crustal extension recorded in deep-marine half-graben fill, Cedros Island, Mexico. Geol. Soc. America Bull., v. 105, p. 547-562.*
- Kokelaar, B. P., and Busby C. J., 1992, Subaqueous explosive eruption and welding of pyroclastic deposits: Science, Full Article, v. 257, p. 196-201.*
- Saleeby, J. B., and Busby-Spera, C. J., 1992, Early Mesozoic evolution of the western U.S. Cordillera, In B. C. Burchfiel, P. W. Lipman and M. L. Zoback (eds.) The Cordilleran Orogen: Conterminus United States: Decade of North American Geology, Geological Society of America, v. G-3, p. 107-168.*
- Riggs, N. R., and Busby-Spera, C. J., 1991, Facies analysis of an ancient large caldera complex and implications for intra-arc subsidence: middle Jurassic Cobre Ridge Group, Southern Arizona, USA: Sedimentary Geology, Special Issue on Volcanogenic Sedimentation, R. Cas and C. Busby-Spera (eds), v. 74, nos. 1-4, p. 39-70.*
- Busby-Spera, C. J. and Saleeby, J. B., 1990, Intra-arc strike slip fault exposed at batholithic levels in the southern Sierra Nevada, California: Geology, v. 18, p. 255-259.*
- Morris, W. R., and Busby-Spera, C. J., 1990, A submarine fan valley-levee complex in the Upper Cretaceous Rosario Formation, Baja California: Implications for turbidite facies models: Geol. Soc. America Bull., v. 102, p. 900-914.*
- Riggs, N. R., and Busby-Spera, C. J., 1990, Evolution of a multi-vent volcanic complex within a subsiding arc graben depression: Mount Wrightson Formation, southern Arizona. Geol. Soc. America Bull., v. 102, no. 8, p. 1114-1135.*
- Busby-Spera, C. J., 1988a, Speculative tectonic model for the Early Mesozoic arc of the southwest Cordilleran United States: Geology, v. 16, p. 1121-1125.*
- Busby-Spera, C. J., 1988b, Evolution of a Middle Jurassic back-arc basin, Cedros Island, Baja California: Evidence from a marine volcanoclastic apron: Geol. Soc. America Bull., v. 100, p. 218-233.*
- Morris, W. R., and Busby-Spera, C. J., 1988, Sedimentologic evolution of a submarine canyon in a forearc basin, Late Cretaceous Rosario Formation, San Carlos, Mexico: Am. Assoc. Petroleum Geologists, v. 72/6, p. 717-737.*
- Busby-Spera, C. J., and White, J. D. L., 1987, Variation in peperite textures associated with differing host sediment properties: Bull. Volcanology, v. 49, no. 6, p. 765-776.*
- Busby-Spera, C. J., 1987, Lithofacies of deep marine basalts emplaced on a Jurassic backarc apron, Baja California (Mexico): Jour. of Geology, v. 95, p. 671-686.*
- Busby-Spera, C. J., 1986, Depositional features of rhyolitic and andesitic volcanoclastic rocks of the Mineral King submarine caldera complex, Sierra Nevada, California: Jour. Volcanology and Geothermal Res., v. 27, p. 43-76.*
- Busby-Spera, C. J., 1984a, Large-volume rhyolite ash-flow eruptions and submarine caldera collapse in the lower Mesozoic Sierra Nevada, California: Jour. Geophys. Res., v. 89, no. B10, p. 8417-8427.*