Curriculum Vitae

JOHN WAKABAYASHI

Associate Professor of Geology, California State University, Fresno, Department of Earth and Environmental Sciences, 2576 E. San Ramon Ave., Mail Stop ST-24, Fresno, CA 93740-8039 tel. (559-278-6459)

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EDUCATION

A.B. Geology, University of California, Berkeley, 1980; Ph.D. Geology, University of California, Davis, 1989 **REGISTRATION**

California Professional Geologist No. 5890

PROFESSIONAL SOCIETY MEMBERSHIP

American Geophysical Union; Geological Society of America (Fellow), Meeting and Technical Program Chair of 2013 Cordilleran Section Meeting; Association of Engineering Geologists (member, continuing education committee); Northern California Geological Society.

EMPLOYMENT

8/2010 to present: Associate Professor, California State University, Fresno

8/2005 to 8/2010: Assistant Professor, California State University, Fresno

- 1993 to 2005: Independent geological consultant: engineering and environmental geology, neotectonics/seismic hazard, independent research.
- 2005: Lecturer, University of California, Berkeley: taught field course with theme of geologic transect of California

1998-1999: Lecturer, California State University, Hayward: taught structural geology winter quarter in both years 1998: Lecturer, University of California, Berkeley: taught structural geology spring semester

1998: Lecturer, California State University, Hayward; taught graduate seminar on evolution of the San Andreas fault system

- 1989 to 1992 Geologist, Earth Sciences Associates, Inc., Palo Alto, CA; Seismotectonic analysis and neotectonics; probabilistic seismic hazard analysis; petrographic analysis; slope stability; project work included investigations for water resources (dams, pipelines, tunnels, conjunctive use), hydroelectric and environmental projects
- 1983 to 1988: Teaching assistant, UC Davis Geology Department; Courses T.A.'d include field geology, structural geology, tectonics, mineralogy, optical mineralogy, metamorphic petrology and igneous petrology
- 1981 to 1982: Geologist, Geotechnical Consultants Inc., San Francisco, CA. Performed geologic mapping, core logging, petrographic analysis of Franciscan Complex rocks in San Francisco as part of geotechnical study for a cross-town sewer tunnel.
- 1980: Geologist, Union Carbide Corporation, Grand Junction, CO and Missoula, MT. Performed geochemical, geophysical studies and geologic prospecting for hard rock uranium deposits in Colorado and Montana.

GRADUATE STUDENT AND SENIOR THESIS SUPERVISION

M.S. thesis advisor of Chris Smart (M.S. 2008), Emily Fisher (M.S. 2010), Chris Kemp (M.S., 2012), Jennifer Jackson (M.S., 2012), Nobuaki Masutsubo (M.S. 2013), Andy Shriver, Maya Garcia, Yvan Mendoza, Dennis Eck, Jennifer Ratliff, Shannon Mark. Co-Ph.D. advisor of Jun Luo (Beijing). I am serving on the thesis committee of Paul Troop, Robert Koons, Oscar Smith, Melissa Scruggs, Jeff Rash, and John Tanner, and I have served on the master's thesis committee of Chad Carlson (M.S. 2012), Owen Kubit (M.S., 2012), Anna Brody, (M.S. 2011), Doug DeFlitch (M.S. 2010), Jorge Baca (M.S. 2009), Rohit Sharma (M.S., 2008), Sana Alsaoudi (M.S. 2008), and Marlon Jean (M.S. 2007). I am serving as senior thesis advisor for Joshua Marroquin, Steffany Aguilar and Haley Letsinger, and have served as senior thesis advisor for John Tanner, Miguel Cisneros, Brian Hitz, Yvan Mendoza, Rachel Prohoroff, Chad Carlson, Jared Long, Joey Luce, Gary Smith, Barbara Jessup, Nick Smaira, Jerrod Lessel, Dillon Kass, Evalin Herleman and Donna Parkansky. Served on thesis committee of David Shimabukuro, Ph.D. 2011, Dept. Earth and Planetary Science, Univ. California Berkeley, Scott Dickerman, M.S., 1999, Department of Geology, California State University, Hayward; and Ron Rubin, M.S., 2002, Department of Geology, San Jose State University.

AWARDS/HONORS

Elected as Fellow of the Geological Society of America, April 28, 2012. Keynote speaker, Geological Society of America Penrose Conference on the Central Asian Orogenic Belt, Urumqi, China, September 2011. Keynote speaker, International

Conference on tectonics of strike-slip restraining and releasing bends in continental & oceanic settings (Geological Society of London, London, UK, Sept. 28-30, 2005), Visiting scholar, Centers of Excellence, Tohoku University, Sendai, Japan, May 2009. Recognized as Outstanding Reviewer (October 2006) by the Geological Society of America.

SCIENTIFIC EDITORSHIP

Associate Editor for Geological Society of America Bulletin 2004-2012. Edited book "Melanges: Processes of formation and societal significance": Geological Special Paper 480 (2011). Guest editor of special issue of Lithosphere on subduction initiation and termination (v. 4, no. 6; 2013). Currently guest editor of special issue of Lithosphere on the Central Asian Orogenic Belt and comparison to Circum Pacific orogens, and guest editor of special issue of International Geology Review on convergent plate margin processes.

SCIENTIFIC PEER REVIEW

<u>Reviewed manuscripts for</u>: American Journal of Science, Bulletin of the Seismological Society of America, California of Division of Mines and Geology Special Publications, Canadian Journal of Earth Sciences, Contributions to Mineralogy and Petrology, Eclogae Geologicae Helveticiae, G-Cubed, Geology, Geological Society of America Bulletin, Geological Society of America Special Papers, Geological Society of America Map and Chart series, Geological Society of London Special Publication, Geoscience Frontiers, Geosphere, Gondwana Research, International Journal of Earth Sciences (formerly Geologische Rundschau), The Island Arc (Journal of the Geology, Journal of Geophysical Research; Journal of Metamorphic Geology, Journal of Structural Geology, Lithos, Lithosphere, Marine Geology, Precambrian Research, Revista Geologica de Chile, Tectonics, Tectonophysics, and a book on Western Pacific Subduction Complexes published by Springer. <u>Reviewed grant proposals for</u>: the British Council, Austrian National Science Fund FWF, China State Natural Science Award, Three different National Science Foundation Earth Science programs (Structure & Tectonics, Petrology and Geochemistry, and ODP/IODP), the Petroleum Research Fund, and National Earthquake Hazard Reduction Program. <u>Reviewed lay persons' geology book</u> for University of California Press.

PUBLICATIONS (*denotes student advisee)

- 62. Ghatak, A., Basu, A.R., and <u>Wakabayashi, J.</u>, in press, Implications of Franciscan Complex greywacke geochemistry for sediment transport, provenance determination, burial-exposure duration, and exchange with co-subducted metabasites: Tectonics
- Osozawa, S., Okamoto, T., Su, Z.-H., Oba, Y., Yagi, T., Watanabe, Y., and <u>Wakabayashi, J.</u>, 2013, Vicariant speciation due to 1.55 Ma isolation of the islands of Ryukyu, Japan, based on geologic and GenBank data: Entomological Science, v. 16, p. 267-277, doi:10.1111/ens.12037
- <u>Wakabayashi, J.</u>, 2013, Subduction initiation, accretion and non accretion, large-scale material movement, and localization of subduction megaslip, Franciscan Complex and related rocks, California: in Putirka, K., ed. Geological Excursions from Fresno, California, and the Central Valley: A Tour of California's Iconic Geology, Geological Society of America Field Guide 32, p. 129-162, doi: 10.1130/2013.0032(07)
- 59. Kusky, T.M., Windley, B.F., Safanova, I., Wakita, K., <u>Wakabayashi, J.</u>, Polat, A., and Santosh, M., 2013, Recognition of oceanic plate stratigraphy in accretionary orogens through Earth history: A record of 3.8 billion years of sea floor spreading, subduction, and accretion: Gondwana Research, doi 10.1016/j.gr.2013.01.004
- 58. <u>Wakabayashi, J.</u>, 2013, Paleochannels, stream incision, erosion, topographic evolution, and alternative explanations of paleoaltimetry, Sierra Nevada, California: Geosphere, v. 9, p. 192-215, doi:10.1130/GES00814.1
- 57. Shimabukuro*, D.H., <u>Wakabayashi, J.</u>, Alvarez, W., and Chang, S.-c., 2012, Cold and old: The rock record of subduction initiation beneath a continental margin, Calabria, southern Italy. Lithosphere, v. 4, p. 524-532.
- Osozawa, S., Shinjo, R., Lo, C-H., Jahn, B-m., Hoang, N., Sasaki, M., Ishikawa, K., Kano, H., Hoshi, H., Xenophontos, C., and <u>Wakabayashi, J.</u>, 2012, Geochemistry and geochronology of the Troodos ophiolite: An SSZ ophiolite generated by subduction initiation and an extended episode of ridge subduction?. Lithosphere, v. 4, p. 497-510.
- 55. Osozawa, S., Tsai, C-H., and <u>Wakabayashi, J.</u>, 2012, Folding of granite and Cretaceous exhumation associated with regional-scale flexural slip folding and ridge subduction, Kitakami zone, northeast Japan: Journal of Asian Earth Sciences, v. 59, p.85-98, doi: 10.1016/j.jseaes.2012.05.023
- 54. Osozawa, S., and <u>Wakabayashi, J.</u>, 2012, Exhumation of Triassic HP-LT rocks by upright extrusional domes and overlying detachment faults, Ishigaki-jima, Ryukyu Islands: Journal of Asian Earth Sciences, v. 59, p. 70-84 doi:10.1016/j.jseaes.2012.04.001.
- Prohoroff*, R.E., <u>Wakabayashi, J.</u>, and Dumitru, T.A., 2012, Sandstone-matrix olistostrome deposited on intrasubduction complex serpentinite, Franciscan Complex, western Marin County, California: Tectonophysics v. 568-569, p. 296-305. doi: 10.1016/j.tecto.2012.05.018

- 52. Hitz*, B., and <u>Wakabayashi, J.</u>, 2012, Unmetamorphosed sedimentary mélange with high-pressure metamorphic blocks in a nascent forearc basin setting: Tectonophysics. v. 568-569, p. 124-134. doi: 10.1016/j.tecto.2011.12.006
- 51. <u>Wakabayashi, J.</u>, 2012, Subducted sedimentary serpentinite mélanges: Record of multiple burial-exhumation cycles and subduction erosion: Tectonophysics, v. 568-569, p. 230-247. doi: 10.1016/j.tecto.2011.11.006
- 50. Osozawa, S., Shinjo, R., Armid, A., Watanabe, Y., Horiguchi, T., and <u>Wakabayashi, J.</u>, 2012, Paleogeographic reconstruction of the 1.55 Ma synchronous isolation of the Ryukyu Islands, Japan, and Taiwan and the inflow of the Kuroshio warm current: International Geology Review, v. 54. p. 1369-1388.. doi: 10.1080/00206814.2011.639954
- 49. Ghatak, A., Basu, A.R., and <u>Wakabayashi, J.</u>, 2012, Element mobility in Subduction metamorphism: Insight from metamorphic rocks of the Franciscan Complex and Feather River ultramafic belt, California: International Geology Review, v. 54, p. 654-685, doi:10.1080/00206814.2011.567087
- 48. <u>Wakabayashi, J</u>., and Dilek, Y., 2011, Editors, Mélanges: Processes of Formation and Societal Significance, Geological Society of America Special Paper 480, doi : 10.1130/2011.2480, 277 pp.
- <u>Wakabayashi, J.</u>, 2011, Mélanges of the Franciscan Complex, California: Diverse structural setting, evidence for sedimentary mixing, and their connection to subduction processes: in Wakabayashi, J., and Dilek, Y. eds. Mélanges: Processes of Formation and Societal Significance, Geological Society of America Special Paper 480, p.117-141. doi: 10.1130/2011.2480(05)
- 46. <u>Wakabayashi, J.</u>, and Dilek, Y., 2011, Introduction: Characteristics and tectonic settings of mélanges, and their significance for societal and engineering problems: in Wakabayashi, J., and Dilek, Y. eds. Mélanges: Processes of Formation and Societal Significance, Geological Society of America Special Paper 480, p.v-x. doi: 10.1130/2011. 2480(00)
- 45. Dumitru, T.A., <u>Wakabayashi, J.</u>, Wright, J.E., and Wooden, J.L., 2010, Early Cretaceous (ca. 123 Ma) transition from nonaccretion to voluminous sediment accretion within the Franciscan subduction complex: Tectonics, v. 29, TC5001, doi: 10.1029/2009TC882542
- 44. <u>Wakabayashi, J.</u>, Ghatak, A., and Basu, A.R.,2010, Tectonic setting of supra subduction zone ophiolite generation and subduction initiation as revealed through geochemistry and regional field relationships: Geological Society of America Bulletin, v. 122, p. 1548-1568 doi: 10.1130/B30017.1
- 43. Snow, C.A., <u>Wakabayashi, J.</u>, Ernst, W.G., and Wooden, J.L., 2010, SHRIMP-based depositional ages of Franciscan metagraywackes, west-central California: Geological Society of America, v. 122, p. 282-291; doi:10.1130/B26399.1
- 42. Smart*, C.M., and <u>Wakabayashi, J.</u>, 2009, Hot and deep: Rock record of subduction initiation and exhumation of high-temperature, high-pressure metamorphic rocks, Feather River ultramafic belt, California: Lithos, v. 113, p. 292-305, doi:10.1016/j.lithos.2009.06.012
- 41. <u>Wakabayashi, J.</u>, 2008, Franciscan Complex, California: Problems in recognition of melanges, and the gap between research knowledge and professional practice: Proceedings of the 2008 Conference of the American Rock Mechanics Association, San Francisco (published online): available
 - athttp://www.onepetro.org/mslib/app/Preview.do?paperNumber=ARMA-08-357&societyCode=ARMA
- 40. <u>Wakabayashi, J.</u>, and Dumitru, T.A., 2007, 40Ar/39Ar ages from coherent high-pressure metamorphic rocks of the Franciscan Complex, California: Revisiting the timing of metamorphism of the world's type subduction complex: International Geology Review, v. 49, p. 873-906.
- <u>Wakabayashi, J.</u>, 2007, Step-overs that migrate with respect to affected deposits: Field characteristics and speculation on some details of their evolution: in Cunningham, W.D., and Mann, P., eds. Tectonics of strike-slip releasing and restraining bends in continental and oceanic settings. Geological Society of London Special Publication 290, p. 169-188
- Tsujimori, T., Matsumoto, K., <u>Wakabayashi, J.</u>, and Liou, J.G., 2006, Franciscan eclogite revisited: Reevaulation of P-T evolution of tectonic blocks from Tiburon Peninsula, California, USA: Mineralogy and Petrology, v. 88, p. 243-267.
- 37. Moores, E.M., <u>Wakabayashi, J.</u>, Unruh, J.R., and Waechter, S., 2006, A transect spanning 500 million years of active plate margin history: Outline and field trip guide: in Prentice, C.S., Scotchmoor, J.G., Moores, E.M., and Kiland, J.P., eds,. 1906 San Francisco Earthquake Centennial Field Trip Guides: Field trips associated with the 100th Anniversary Conference, 18-23 April 2006, San Francisco, CA: Geological Society of America Field Trip Guide 7, p.373-413; doi: 10.1130/2006.1906SF(20).
- 36. Saha, A., Basu, A.R., <u>Wakabayashi, J.</u>, and Wortman, G.L., 2005, Geochemical evidence for subducted nascent arc from Franciscan high-grade tectonic blocks: Geological Society of America Bulletin, v. 117, p. 1318-1335.

(pre-California State University, Fresno below)

- 35. <u>Wakabayashi, J.</u>, 2005, Franciscan Complex and Coast Range Ophiolite, eastern margin of San Francisco Bay, California: Major components of the former convergent plate boundary: in Stevens, C., and Cooper, J., eds. Mesozoic tectonic assembly of California Pacific Section, SEPM, Book 96, p. 1-20.
- 34. <u>Wakabayashi, J.</u>, 2004 Contrasting settings of serpentinite bodies, San Francisco Bay area, California: Derivation from the subducting plate vs. mantle hanging wall: International Geology Review, v. 46, p. 1103-1118.
- <u>Wakabayashi, J.</u>, and Medley, E.W., 2004, Geological characterization of melanges for practitioners: Felsbau v. 22, no. 5, p. 10-18.

- 32. <u>Wakabayashi, J.</u>, 2004, Tectonic mechanisms associated with P-T paths of regional metamorphism: alternatives to singlecycle thrusting and heating: Tectonophysics, v. 392, p. 193-218.
- 31. <u>Wakabayashi, J.</u>, Hengesh, J.V., and Sawyer, T.L.,2004, Four-dimensional transform fault processes: progressive evolution of step-overs and bends: Tectonophysics, v. 392, p. 279-301.
- 30. Anczkiewicz, R., Platt, J.P., Thirlwall, M.F., and <u>Wakabayashi, J.</u>, 2004, Franciscan subduction off to slow start: Evidence from high-precision Lu-Hf garnet ages on high-grade blocks: Earth and Planetary Science Letters, v. 225, p. 147-161
- 29. Harrison, S., Safford, H., and <u>Wakabayashi, J.</u>, 2004, Does age of exposure of serpentine explain variation in endemic plant diversity in California? International Geology Review, v. 46, p. 235-242.
- <u>Wakabayashi,J.</u>, and Dilek, Y., 2003, What constitutes "emplacement" of an ophiolite?: mechanisms and relationship to subduction initiation and formation of metamorphic soles: in press, in: Dilek, Y., and Robinson, P.T., eds., Ophiolites in Earth history, Geological Society of London Special Publication 218, p. 427-447.
- Moores, E.M., <u>Wakabayashi, J.</u>, and Unruh, J.R., 2002, Crustal scale cross-section of the US Cordillera, California and beyond, its tectonic significance, and speculations on the Andean orogeny: International Geology Review, v. 44, p. 479-500
- 26. <u>Wakabayashi, J.</u>, and Sawyer, T.L., 2001, Stream incision, tectonics, uplift, and evolution of topography of the Sierra Nevada, California: Journal of Geology, v. 109, p. 539-562.
- 25. <u>Wakabayashi, J.</u>, and Dilek, Y., 2000, Spatial and temporal relations between ophiolites and their subophiolitic soles: A test of models of forearc ophiolite genesis: in Dilek, Y., Moores, E.M., Elthon, D., and Nicolas, A., eds., Ophiolites and oceanic crust: New insights from field studies and ocean drilling, Geological Society of America Special Paper 349, p. 53-64.
- 24. <u>Wakabayashi, J.</u>, and Sawyer, T.L., 2000, Neotectonics of the Sierra Nevada and the Sierra Nevada-Basin and Range Transition, California, with field trip stop descriptions for the northeastern Sierra Nevada: in Brooks, E.R., and Dida, L.T., eds., Field guide to the geology and tectonics of the northern Sierra Nevada, California Division of Mines and Geology Special Publication 122, p. 173-212.
- 23. <u>Wakabayashi, J.</u>, 1999, Distribution of displacement on, and evolution of, a young transform fault system: the northern San Andreas fault system, California: Tectonics, v. 18, no. 6, p. 1245-1274
- <u>Wakabayashi, J.</u>, 1999, The Franciscan Complex, San Francisco Bay area: A record of subduction processes: in Wagner, D.L., and Graham, S. A., eds. Geologic field trips in northern California, California Division of Mines and Geology Special Publication 119, p. 1-21.
- <u>Wakabayashi, J.</u>, 1999, Subduction and the rock record: Concepts developed in the Franciscan Complex, California: in Sloan, D., Moores, E.M., and Stout, D. eds., Classic Cordilleran Concepts: A View From California, Geological Society of America Special Paper 338, p. 123-133.
- 20. Moores, E.M., Dilek, Y., and <u>Wakabayashi, J.</u>, 1999, California terranes: in Sloan, D., Moores, E.M., and Stout, D. eds., Classic Cordilleran Concepts: A View From California, Geological Society of America Special Paper 338, p. 227-234.
- <u>Wakabayashi, J.</u>, and Sawyer, T.L., 1998, Paleoseismic investigation of the Miller Creek fault, eastern San Francisco Bay area, California: Final Technical Report, U.S. Geological Survey National Earthquake Hazards Reduction Program Fiscal Year 1997, Award No. 1434-HQ-97-GR-03141.
- 18. <u>Wakabayashi, J.</u>, 1996, Tectono-metamorphic impact of a subduction-transform transition and implications for interpretation of orogenic belts: International Geology Review, v.38, p. 979-994.
- 17. Working Group on Northern California Earthquake Potential (Wakabayashi is one of 29 members), 1996, Database of potential sources for earthquakes larger than magnitude 6 in northern California: U.S. Geological Survey Open File Report 96-705, 53pp.
- 16. Buising, A.V., and <u>Wakabayashi, J.</u>, 1996, Late Cenozoic structures between San Leandro Reservoir and Dublin Canyon, eastern San Francisco Bay area, California: in Jayko, A.S., and Lewis, S.D., compilers, Toward Assessing the Seismic Risk Associated with Blind Thrust Faults: U.S. Geological Survey Open File Report 96-267, p. 119-126.
- Hengesh, J.V., <u>Wakabayashi, J.</u>, and Nolan, J.M., 1996, Paleoseismic investigation of the Serra fault, San Francisco peninsula, California: Final Technical Report, U.S. Geological Survey National Earthquake Hazards Reduction Program Fiscal Year 1995, Award No. 1434-95-G-2549
- <u>Wakabayashi, J.</u>, and Hengesh, J.V., 1995, Distribution of late Cenozoic displacement on the San Andreas fault system, northern California: in Sangines, E.M., Andersen, D.W., and Buising, A.W., eds., Recent geologic studies in the San Francisco Bay Area, Pacific Section, SEPM (Society for Sedimentary Geology), Book. 76, p.19-30
- Hengesh, J.V., and <u>Wakabayashi, J.</u>, 1995, Dextral translation and progressive emergence of the Pleistocene Merced basin and implications for timing of initiation of the San Francisco Peninsula segment of the San Andreas fault:in Sangines, E.M., Andersen, D.W., and Buising, A.W., eds., Recent geologic studies in the San Francisco Bay Area, Pacific Section, SEPM (Society for Sedimentary Geology), Book 76, p.47-54
- 12. <u>Wakabayashi, J.</u>, and Unruh, J.R., 1995, Tectonic wedging, blueschist metamorphism, and exposure of blueschist: are they compatible?: Geology, v. 23, p. 85-88

- Hengesh, J.V., and <u>Wakabayashi, J.</u>, 1995, Quaternary deformation between Coyote Point and Lake Merced on the San Francisco peninsula: Implications for evolution of the San Andreas fault: Final Technical Report, U.S. Geological Survey National Earthquake Hazards Reduction Program Fiscal Year 1994, Award No. 1434-94-G-2426
- 10. <u>Wakabayashi, J.</u>, and Smith, D.L., 1994, Evaluation of recurrence intervals, characteristic earthquakes and slip rates associated with thrusting along the Coast Range-Central Valley geomorphic boundary, California: Bulletin of the Seismological Society of America, v. 84, p.1960-1970
- <u>Wakabayashi, J.</u>, Smith, D. L., and Hamilton, D. H., 1992, The Miller Creek Fault and related structures: Neogene kinematics of a potentially active thrust system in the East Bay Hills, California: in Borchardt, G., ed., Proceedings of the 2nd Conference on Earthquake Hazards in the eastern San Francisco Bay Area, Calif. Div. Mines and Geology Special Publication 113, p. 345-354.
- Volpe, R. L., Kissick, C. M., and <u>Wakabayashi, J.</u>, 1992, Seismic hazard in the Sacramento-San Joaquin Delta Region, California: insight from probabilistic seismic risk analyses: in Borchardt, G., ed., Proceedings of the 2nd Conference on Earthquake Hazards in the eastern San Francisco Bay Area, Calif. Div. Mines and Geology Special Publication 113, p. 525-534.
- <u>Wakabayashi, J.</u>, 1992, Metamorphism and tectonic origin of Franciscan metabasites and a field trip guide to three localities in the San Francisco Bay area: in Schiffman, P., and Wagner, D. L., eds., Field Guide to the Geology and Metamorphism of the Franciscan Complex and Western Metamorphic Belt of Northern California, Calif. Div. Mines and Geology Special Publication 114, p. 1-11.
- 6. <u>Wakabayashi, J.</u>, 1992, Nappes, tectonics of oblique plate convergence, and metamorphic evolution related to 140 million years of continuous subduction, Franciscan Complex, California: Journal of Geology, v. 100, p. 19-40
- 5. <u>Wakabayashi, J.</u>, 1990, Counterclockwise P-T-t paths from amphibolites, Franciscan Complex, California: metamorphism during the early stages of subduction: Journal of Geology, v. 98, p. 657-680.
- 4. Harper, G. D., Grady, K., and <u>Wakabayashi, J.</u>, 1990, A structural study of a metamorphic sole beneath the Josephine ophiolite, western Klamath terrane, California-Oregon: Geol. Soc. Amer. Special Paper 255, p. 379-396.
- 3. Wahrhaftig, C. and <u>Wakabayashi, J.</u>, 1989, The Franciscan Complex: introduction & The Franciscan Complex: tectonostratigraphic terranes & The Franciscan Complex: Basalts: in Wahrhaftig, C. and Sloan, D., eds. Geology of San Francisco and vicinity: Int. Geol. Congress Field Trip Guide T105, p. 5-6 & p. 6-8 & p.9
- <u>Wakabayashi, J.</u>, 1989, Baker Beach amphibolite & Ring Mtn. amphibolites: Counterclockwise P-T paths in Franciscan amphibolites: in Wahrhaftig, C. and Sloan, D., eds. Geology of San Francisco and vicinity: Int. Geol. Congress Field Trip Guide T105, p. 42-44 & p. 45-46.
- 1. <u>Wakabayashi, J.</u>, and Moores, E. M., 1988, Evidence for the collision of the Salinian Block with the Franciscan subduction zone: Journal of Geology, v. 96, p. 245-253.

SELECTED ABSTRACTS (asterisks (*)= student advisee)

Note: There are several abstracts presented at international meetings upon which I am a junior author that are not recorded here because I do not have the information regarding publication details (most of these are post-2006).

- 87. <u>Wakabayashi, J.</u>, 2013, Mélanges with HP metamorphic rocks in subduction complexes: Deformed olistostromes rather than exhumed subduction channels? Geological Society of America Abstracts with Programs, v. 45, no. 6, p.1
- 86. <u>Wakabayashi, J.</u>, 2013, What is an exotic block? Importance in evaluating origins of mélange: Geological Society of America Abstracts with Programs, v. 45, no. 6, p. 7
- 85. Carlson, C.W.*, and <u>Wakabayashi, J.</u>, 2013, One versus two late Cenozoic uplift events, Sierra Nevada, California, recorded in drainage geomorphology: Geological Society of America Abstracts with Programs, v. 45, no. 6, p.17
- 84. Luo, J.*, and <u>Wakabayashi, J.</u>, 2013, An upper crustal ophiolite remnant within the Feather River ultramafic belt, northern Sierra Nevada California: Unsubducted, but affected by ridge subduction? Geological Society of America Abstracts with Programs, v. 45, no. 6, p. 72
- 83. Masutsubo, N.*, and <u>Wakabayashi, J.</u>, 2013, Diverse metamorphic trajectories, imbricated ocean plate stratigraphy, and fault rocks, Yuba River area, Feather River ultramafic belt, California: Geological Society of America Abstracts with Programs, v. 45, no. 6, p. 72
- 82. Eck, D.S.*, and <u>Wakabayashi, J.</u> 2013, The Devils Gate ophiolite, northern Sierra Nevada: Not an ophiolite or metamorphic sole? Geological Society of America Abstracts with Programs, v. 45, no. 6, p.72
- Shimabukuro, D.H.*, Alvarez, W., <u>Wakabayashi, J.</u>, and Moores, E.M., 2013, An oceanic core complex preserved in ophiolitic fragments in Calabria, southern Italy: Geological Society of America Abstracts with Programs, v. 45, no. 6, p.55
- 80. <u>Wakabayashi, J.</u>, 2012, Gradation between mélanges and coherent units: Insight into convergent plate margin tectonics: Geological Society of America Abstracts with Programs, v. 44, no. 7, p.384

- 79. Masutsubo, N.*, and <u>Wakabayashi, J.</u>, 2011, Complex temporal-spatial relationships, Feather River ultramafic belt, northern Sierra Nevada. EOS Fall Meeting Supplement Abstracts
- 78. Jackson, J.L.,* <u>Wakabayashi, J.</u>, and Jackson, B.A., 2011, Southern continuation of high-grade metamorphic rocks of the Feather River ultramafic belt, California: Preliminary reconnaissance. EOS Fall Meeting Supplement Abstracts
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- 76. Dumitru, T.A., Ernst, W.G., and <u>Wakabayashi, J.</u>, 2011, Episodic vs. continuous accretion in the Franciscan accretionary prism and direct plate motion controls vs. more local tectonic controls on prism evolution. EOS Fall Meeting Supplement Abstracts
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EXTRAMURAL GRANTS (as PI/co-PI)

NSF-EAR \$69,692 (Award for 2007-2009). Geochemical investigations of subduction initiation processes, Franciscan Complex, California. Pre-Fresno State extramural grants included three National Earthquake Hazard Reduction Program Grants for a total funded amount of approximately \$150,000 awarded 1994-1997.

INVITED SEMINARS/PRESENTATIONS

(geology departments unless otherwise noted)

Keynote speaker, Geological Society of America Penrose Conference on the Central Asian Orogenic Belt, Urumqi, China, September 2011, Keynote speaker, International Conference on tectonics of strike-slip restraining and releasing bends in continental & oceanic settings (Geological Society of London, London, UK, Sept. 28-30, 2005); Coleman Symposium (Dec. 2003), Liou Symposium (Dec. 2005), Association of Engineering Geologists, San Francisco Section (thrice), Association of Engineering Geologists, Sacramento Section; Association of Engineering Geologists, Fresno Chapter (twice) ; American Geophysical Union Fall Meeting 1994, 1998; Geological Society of America Annual Meeting, 1999; 2009 (twice), National Association of Geoscience Teachers 1994, 2012; Northern California Geology Society (thrice), Peninsula Geological Society, San Joaquin Geological Society, U.S. Geological Survey (Menlo Park, CA), Volcanological Society of Sacramento (twice), University of Southern California, UC Davis (four times); UC Santa Cruz, UCLA, University of Nevada-Las Vegas; Stanford Univ. (thrice), San Francisco State (thrice), Cal. State Univ. Chico (thrice), Cal. State University Fresno (thrice; prior to employment), Cal. State Univ. Sacramento, (twice) Cal. State Hayward/East Bay (four times), Humboldt State, San Jose State (thrice), Sonoma State (five times), Central Washington University, University of the Pacific, Cambridge Univ. (U.K.) 1998; Kyoto Univ. (Japan) 1993, Tohoku University) (Japan) (two presentations on two separate days)2009, Guangzhou Institute of Geochemistry (China) (three presentations on three separate days) 2011.

FIELD TRIPS LED

(organizations for which trips were led; university trips exclude trips conducted while in employ of that university) Assoc. of Engineering Geologists SF-Section (three times), Casey Moore Retirement Celebration, CIDER(Cooperative Institute for Dynamic Earth Research) 2013, Ernst 80th Celebration, Friends of the Pleistocene, Geological Society of America Penrose Conference on Ophiolites, Geological Society of America Cordilleran Section (three times), International Geologic Congress, International Conference on Geochronology, Cosmochronology and Isotope Geology, International Geologists, Assoc. of Women Geoscientists, National Assoc. of Geoscience Teachers (twice), Northern California Geological Society (three times), Peninsula Geologic Society/Stanford Univ., Cal. State Hayward, UC Berkeley (twice), UC Davis, Chico State, Brigham Young Univ., University of Miami (Ohio), Univ. Oslo (Norway), Indiana Geological Survey (for German participants), Univ. Mainz (Germany), Univ. Wien (Austria), Univ. Salzburg (Austria).