

VITA

PAUL WILLIAM LAYER

EDUCATION:

1981	B.S.	Geology	Michigan State University, East Lansing, Mich.
1984	M.S.	Geophysics	Stanford University, Stanford, California
1986	Ph.D.	Geophysics	Stanford University, Stanford, California

Thesis title: *Archean Paleomagnetism of Southern Africa*
Advisor: Dr. Michael McWilliams, Professor of Geophysics

ACADEMIC POSITIONS HELD:

2000-present	Professor of Geophysics, Department of Geology and Geophysics, Geophysical Institute, University of Alaska, Fairbanks, Alaska
1989-present	Director, Geochronology Laboratory, Geophysical Institute, University of Alaska, Fairbanks, Alaska
1994-2000	Associate Professor of Geophysics, Department of Geology and Geophysics, Geophysical Institute, University of Alaska, Fairbanks, Alaska
1989-1994	Assistant Professor of Geophysics, Department of Geology and Geophysics, Geophysical Institute, University of Alaska, Fairbanks, Alaska
1986-1989	Post-Doctoral Fellow, Department of Physics, University of Toronto, Toronto, Ontario, Canada
1985-1986	Laboratory Manager, Stanford Paleomagnetic Laboratory, Stanford, California
1981-1986	Research Assistant, Department of Geophysics, Stanford University, Stanford, California
1981	Intern, Lunar and Planetary Institute, Houston, Texas

ADMINISTRATIVE EXPERIENCE (INCLUDING COMMITTEE CHAIRS):

2009 – present	Dean (2011-present), Interim Dean (2009-2011), College of Natural Science and Mathematics, University of Alaska Fairbanks
2007 – 2010	Accreditation Evaluator, Northwest Commission of Colleges and Universities (training completed November 2, 2007)
1996-present	Member/Chair, Alaska Geologic Mapping Advisory Board, State of Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys
2007-2009	Associate Dean, College of Natural Science and Mathematics,

	University of Alaska Fairbanks
2007-2009	Director, Engineering, Science and Technology Experimental Station, College of Natural Science and Mathematics, University of Alaska Fairbanks
1999-2008	Outcomes Assessment Coordinator, Department of Geology and Geophysics, University of Alaska Fairbanks
1995-2003, 2007	Head/Chair, Department of Geology and Geophysics, University of Alaska, Fairbanks, Alaska
2004-2006	President-elect and President of UAF Faculty Senate
2004-2007	Member, University of Alaska Faculty Alliance
2006 - 2007	Co-chair, University of Alaska Fairbanks Vice Chancellor for Academic Affairs/ Provost search committee, 2006-2007
2004-2005	University of Alaska Fairbanks Provost's Academic Leadership Academy workshop, participant in 2004, discussion leader in 2005
Member of numerous faculty searches for the Department of Geology and Geophysics and the search committee for the Director of the Geophysical Institute.	

PROFESSIONAL SOCIETIES:

Member, American Geophysical Union
Member, Geological Society of America
Member, Alaska Geological Society

Chairman/Major Supervisor

Andrew West (M.S. Geology, 1994)

A petrologic and geochronologic study of the McKinley Pluton, Alaska

Daniel Hackett (M.S. Geophysics, left program to become H.S. teacher)

*Thesis work involved a geochronologic investigation of the granitic
plutons of the Chersky Range, Russia*

Thomas Douglas (M.S. Geology, 1997)

*Metamorphic histories of the Chatanika eclogite and Fairbanks schist within the
Yukon-Tanana terrane, Alaska, as revealed by electron microprobe
thermobarometry and $^{40}\text{Ar}/^{39}\text{Ar}$ single grain dating*

Ute Adolphs (Ph.D. Geophysics, 1998)

Snow and Ice Thickness Distributions in the South Polar Pacific Ocean

Todd Dallegge (Ph.D. Geology, 2002)

*Application of $^{40}\text{Ar}/^{39}\text{Ar}$ chronostratigraphy to geologic problems in
Yellowstone caldera and Cook Inlet basin*

Walt Munly (Ph.D. Geology, 2004)

An investigation into $^{40}\text{Ar}/^{39}\text{Ar}$ radiogenic dating and X-ray analysis of shales

and clays from northern Alaska.

Dan Jones (M.S., Geology, 2007)

Excess argon in El Chichon volcanic rocks

Jeff Benowitz (Ph.D. Geology, 2011)

Uplift of the central Alaska Range

Kurt Yuengling (Ph.D. Geology, active)

Ages of glacial erratics

Member of 17 M.S. and 10 Ph.D. thesis committees

REFEREED PUBLICATIONS (published or in press 1986-2012)

(in many Russian abstracts and articles, Layer is translated from the Cyrillic alphabet as Leier)

In press

Macías, J.L., Arce, J.L., Layer, P.W. and Saucedo, R., in press, Eruptive History of Tacaná Volcano, in *Volcanoes of Chiapas*, Springer.

2012

Arce, J.L., Macías, J.L., Rangel, E., Layer, P., Garduño-Monroy, V.H., Saucedo, R., García, F., Castro, R., and Pérez-Esquivias, H., 2012, Late Pleistocene rhyolitic explosive volcanism at Los Azufres Volcanic Field, central Mexico, in Aranda-Gómez, J.J., Tolson, G., and Molina-Garza, R.S., eds., *The Southern Cordillera and Beyond: Geological Society of America Field Guide 25*, p. 45–82, doi:10.1130/2012.0025(04).

Benowitz, J. A., P. J. Haeussler, P. W. Layer, P. B. O'Sullivan, W. K. Wallace, and R. J. Gillis, 2012, Cenozoic tectonothermal history of the Tordillo Mountains, Alaska: Paleocene-Eocene ridge subduction, decreasing relief, and late Neogene faulting, *Geochim. Geophys. Geosyst.*, 13, Q04009, doi:10.1029/2011GC003951.

Dietrich, A., Gutierrez, R., Nelson, E.P., and Layer, P.W., 2011, Geology of the epithermal Ag–Au Huevos Verdes vein system and San José district, Deseado massif, Patagonia, Argentina, *Mineralium Deposita*, 47 (3), 233–249 DOI: 10.1007/s00126-010-0327-2.

Macías, J.L., Arce, J.L., García-Tenorio, F., Layer, P.W., Rueda, H., Reyes-Agustin, G., López-Pizaña, F., and Avellán, D., 2012, Geology and geochronology of Tlaloc, Telapón, Iztaccíhuatl, and Popocatepetl volcanoes, Sierra Nevada, central Mexico, in Aranda-Gómez, J.J., Tolson, G., and Molina-Garza, R.S., eds., *The Southern Cordillera and Beyond: Geological Society of America Field Guide 25*, p. 163–193, doi:10.1130/2012.0025(08).

Mora, J.C., Layer, P.W., Jaimes-Viera, M.C., 2012, New 40Ar/39Ar ages from the Central Part of the Chiapanecan Volcanic Arc, Chiapas, México, *Geofísica Internacional*, v. 51 (1), 39–49.

Ring, W., Willner, A.P., Layer, P.W., Richter, P.P., 2012, Jurassic to Early Cretaceous postaccretional sinistral transpression in north-central Chile (latitudes 31–32° S) *Geological Magazine* 149 (2), 208–220.

Śliwiński, M., Bąbel, M., Nejbert K., Olszewska-Nejbert D., Gąsiewicz A., Schreiber B.C., Benowitz, J.A., Layer, P., 2012, Badenian–Sarmatian chronostratigraphy in the Polish Carpathian Foredeep, *Palaeogeography, Palaeoclimatology, Palaeoecology* v. 326–328, 12–29.

2011

- Benowitz, J.A., Layer, P.W., Armstrong, P., Perry, S.E., Haeussler, P.J., Fitzgerald, P.G., and VanLaningham, S., 2011, Spatial variations in focused exhumation along a continental-scale strike-slip fault: The Denali fault of the eastern Alaska Range Geosphere Volume: 7 Issue: 2 Pages: 455-467.
- Dietrich, A., Gutierrez, R., Nelson, E.P., and Layer, P.W., 2011, Geology of the epithermal Ag–Au Huevos Verdes vein system and San José district, Deseado massif, Patagonia, Argentina, Mineralium Deposita, DOI: 10.1007/s00126-010-0327-2 (online).
- Guilbaud, M.-N., Siebe, C., Layer, P., Salinas, S., Castro-Govea, R., Garduno-Monroy, V. H., Le Corvec, N., 2011, Geology, geochronology, and tectonic setting of the Jorullo Volcano region, Michoacan, Mexico, Journal of Volcanology and Geothermal Research Volume: 201 Issue: 1-4 Pages: 97-112, doi: 10.1016/j.jvolgeores.2010.09.005 (online, 2010).
- Hacker, B.R., Kelemen, P.B., Rioux, M., McWilliams, M.O., Gans, P.B., Reiners, P.W., Layer, P.W., Soderlund, U., Vervoort, J.D., 2011, Thermochronology of the Talkeetna intraoceanic arc of Alaska: Ar/Ar, U-Th/He, Sm-Nd, and Lu-Hf dating, Tectonics Volume: 30 # TC1011.
- Lobens, S., Bense, F.A., Wemmer, K., Dunkl, I., Costa, C.H., Layer, P., Siegesmund, S., 2011, Exhumation and uplift of the Sierras Pampeanas: preliminary implications from K-Ar fault gouge dating and low-T thermochronology in the Sierra de Comechingones (Argentina), International Journal of Earth Sciences Volume: 100 Issue: 2-3 Pages: 671-694.
- 2010
- Elming, S.-A., Shumlyanskyy, L., Kravchenko, S., Layer, P., Soderlund, U., 2010, Proterozoic Basic dykes in the Ukrainian Shield: a palaeomagnetic, geochronologic and geochemical study—the accretion of the Ukrainian Shield to Fennoscandia, *Precambrian Research*, doi:10.1016/j.precamres.2010.02.001.
- Karl, S.M., Layer, P.W., Harris, A.G., Haeussler, P.J., and Murchey, B.L., 2010, The Cannery Formation—Devonian to Early Permian arc-marginal deposits within the Alexander Terrane, Southeastern Alaska, in Dumoulin, J.A., and Galloway, J.P., eds., Studies by the U.S. Geological Survey in Alaska, 2008–2009: U.S. Geological Survey Professional Paper 1776–B, 45 p.
- Macias, J.L., Arce, J.L., Garcia-Palomo, A., Mora, J.C., Layer, P.W., and Espindola, J.M., 2010, Late-Pleistocene flank collapse triggered by dome growth at Tacana volcano, Mexico-Guatemala, and its relationship to the regional stress regime, Bulletin of Volcanology, v. 72, p. 33-53.
- Oyhantcabal, P., Siegesmund, S., Wemmer, K., and Layer, P., 2010, The Sierra Bellena Shear Zone in southernmost Dom Feliciano Belt (Uruguay): evolution, kinematics and deformation conditions, International Journal of Earth Sciences Volume: 99 Issue: 6 Pages: 1227-1246, DOI 10.1007/s00531-009-0453-1 (electronic, 2009).
- Rodríguez, S.R., Morales-Barrera, W., Layer, P., González-Mercado, E., 2010, A Quaternary monogenic volcanic field in the Xalapa Region, eastern Trans-Mexican Volcanic Belt: Geology, distribution and morphology of the volcanic vents, Journal of Volcanology and Geothermal Research, Volume: 197 Issue: 1-4 Pages: 149-166.
- Volynets, A.O., Churikova, T.G., Wörner, G., Gordeychik, B.N., and Layer, P., 2010, Mafic Late Miocene–Quaternary volcanic rocks in the Kamchatka back arc region: implications for subduction geometry and slab history at the Pacific–Aleutian junction, Contributions in Mineralogy and Petrology, v. 159, p. 659–687, DOI 10.1007/s00410-009-0447-9.

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- Layer, P.W., Garcia-Palomo, A., Jones, D., Macias, J.L., Arce, J.L., and Mora, J.C., 2009, El Chichon volcanic complex, Chiapas, Mexico: Stages of evolution based on field mapping and $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology, *Geofisica Internacional*, v. 48, p 33-54.
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- Arce, J.L., Macias, R., Garcia-Palomo, A., Capra, L., Macias, J.L., Layer, P.W., and Rueda, H., 2008, Flank collapse of Zempoala Volcano (Central Mexico), *Journal of Volcanology and Geothermal Research*, vol. 177, no. 4, pp.944-958.
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2007

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- Ridgway, K.D., Thoms, E.E., Layer, P.W., Lesh, M.E., White, J.M., and Smith, S.V., 2007, Neogene transpressional foreland basin development on the north side of the central Alaska Range, Usibelli Group and Nenana Gravel, Tanana basin, GSA Special paper 431, 507-548.
- Till, A.B., Roeske, S.M., Bradley, D.C., Friedman, R., and Layer, P.W., Early Tertiary transtension-related deformation and magmatism along the Tintina fault system, Alaska, in A.B. Till et al. (eds), GSA Special Paper 434, Exhumation Associated with Continental Strike-Slip Systems, p. 233-264.
- 2006
- Arce, J.L., J.L Macias, J.E. Gardner, P.W. Layer, 2006, A 2.5 ka History of Dacitic Magmatism at Nevado de Toluca, Mexico: Petrological, $^{40}\text{Ar}/^{39}\text{Ar}$ Dating, and Experimental Constraints on Petrogenesis, J. Petrology, 47, p. 457 - 479.
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Stone, D.B., and Layer, P.W., 2006, Paleosecular variation and GAD studies of 0-2 Ma flow sequences from the Aleutian Islands, Alaska, *Geochemistry, Geophysics, Geosystems*, 7, Q04H22, doi:10.1029/2005GC001007.

2005

Thorkelson, D.J., Abbott, J.G., Mortensen, J.K., Creaser, R.A., Villeneuve, M.E., McNicoll, V.J., Layer, P.W., 2005, Early and Middle Proterozoic evolution of Yukon, Canada, *Canadian Journal of Earth Science*, v. 42, 1045-1071.

2004

Dallegge, T.A., and P.W. Layer, 2004, Revised chronostratigraphy of the Kenai Group from $^{40}\text{Ar}/^{39}\text{Ar}$ dating of low-potassium bearing minerals, Cook Inlet Basin, Alaska, *Canadian Journal of Earth Science*, v. 41, p. 1159-1179

Dusel-Bacon, C., J. L. Wooden, and P. W. Layer, 2004, A Cretaceous SHRIMP U-Pb zircon age for the West Point Orthogneiss: Evidence for another gneiss dome in the Yukon-Tanana Upland, in Galloway, J.P., ed., *Studies in Alaska by the U.S. Geological Survey during 2001: U.S. Geological Survey Professional Paper 1678*, 41-61.

Rombach, C.S. and P.W. Layer, 2004, $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology of the western and central Brooks Range, Alaska: implications for the geologic evolution of the Anarraaq and Red Dog Zn-Pb-Ag deposits, *Economic Geology*, 99, 1307-1322.

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2003

Bradley, D.C., J. Dumoulin, P. Layer, D. Sunderlin, S. Roeske, B. McClelland, A.G. Harris, G. Abbot, T. Bundtzen, T. Kusky, 2003, Late Paleozoic orogeny in Alaska's Farewell terrane, *Tectonophysics*, 372, 23-40.

Constenius, K. N., R. P. Esser, and P. W. Layer, 2003, Extensional Collapse of the Charleston-Nebo Salient and Its Relationship to Space-Time Variations in Cordilleran Orogenic Belt Tectonism and Continental Stratigraphy, in R.G. Reynolds and R. M. Flores, eds., *Cenozoic Systems of the Rocky Mountain Region*, Society for Sedimentary Geology, Denver, Colorado, p303-355.

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2002

Cole, R.B., and P.W. Layer, 2002, Stratigraphy, age and geochemistry of Tertiary volcanic rocks and associated synorogenic deposits, Mount McKinley Quadrangle, Alaska, in: F.H. Wilson and J.P. Galloway editors, *Geologic Studies in Alaska by the U.S. Geological Survey*, 2000, U.S. Geological Survey Professional Paper 1662, 19 - 44.

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2001

Huysken, K.T., T.A. Vogel and P.W. Layer, 2001, Tephra sequences as indicators of magma evolution: $^{40}\text{Ar}/^{39}\text{Ar}$ ages and geochemistry of tephra sequences in the southwest Nevada volcanic field, *Journal of Volcanology and Geothermal Research*, v. 106/1-2, p. 85-110.

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COURSES TAUGHT

Spring Semester 1990

GEOS 605 Geochronology,

3 credits, 3 contact hours, 3 students enrolled

Spring Semester 1991

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 12 students enrolled, 3 audit

GEOS 692 Advanced Topics in Geochronology

2 credits, 2 contact hours, 3 students enrolled, 1 audit

Spring Semester 1992

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 4 students enrolled, 1 audit

GEOS 605 Geochronology

3 credits, 3 contact hours, 13 students enrolled, 1 audit

Spring Semester 1993

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 18 students enrolled

Spring Semester 1994

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 11 students enrolled

Fall Semester 1994

GEOS 605 Geochronology

3 credits, 3 contact hours, 5 students enrolled

Spring Semester 1995

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 11 students enrolled

Spring Semester 1996

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 12 students enrolled

Fall Semester 1996

GEOS 605 Geochronology

3 credits, 3 contact hours, 8 students enrolled

Spring Semester 1997

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 19 students enrolled

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with R. Newberry)

2 credits, 4 contact hours, 14 students enrolled

Fall Semester 1997

GEOS 482 Seminar

1 credit, 1 contact hour, 4 students enrolled

GEOS 493 Independent Study

2 credits, 6 contact hours, 1 student enrolled

Spring Semester 1998

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 14 students enrolled

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with R. Newberry)

2 credits, 4 contact hours, 9 students enrolled

GEOS 692 Tectonics of Russia (co-taught with R. Newberry)

2 credits, 2 contact hours, 9 students enrolled

Fall Semester 1998

GEOS 605 Geochronology

3 credits, 3 contact hours, 6 students enrolled

Spring Semester 1999

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 11 students enrolled

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with R. Newberry)

2 credits, 4 contact hours, 5 students enrolled

Fall Semester 1999

GEOS 482 Seminar

1 credit, 1 contact hour, 4 students enrolled

Spring Semester 2000

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 21 students enrolled

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with S. Fowell)

2 credits, 4 contact hours, 5 students enrolled

Fall Semester 2000

GEOS 605 Geochronology

3 credits, 3 contact hours, 5 students enrolled

GEOS 482 Seminar

1 credit, 1 contact hour, 3 students enrolled

Spring Semester 2001

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 15 students enrolled

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with S. Fowell)

2 credits, 4 contact hours, 13 students enrolled

Spring Semester 2002

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 14 students enrolled

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with J. Gardner)

2 credits, 4 contact hours, 8 students enrolled

Fall Semester 2002

GEOS 605 Geochronology

3 credits, 3 contact hours, 7 students enrolled

Spring Semester 2003

GEOS 430 Statistics and Data Analysis in Geology

3 credits, 3 contact hours, 19 students enrolled

GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)
4 credits, 6 contact hours, 40 students enrolled

Fall Semester 2003

GEOS 482 Seminar
1 credit, 1 contact hour, 7 students enrolled

Spring Semester 2004

GEOS 430 Statistics and Data Analysis in Geology
3 credits, 3 contact hours, 20 students enrolled
GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)
4 credits, 6 contact hours, 70 students enrolled

Fall Semester 2004

GEOS 605 Geochronology
3 credits, 3 contact hours, 10 students enrolled

Spring Semester 2005

GEOS 430 Statistics and Data Analysis in Geology
3 credits, 3 contact hours, 17 students enrolled
GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)
4 credits, 6 contact hours, 75 students enrolled

Spring Semester 2006

GEOS 430 Statistics and Data Analysis in Geology
3 credits, 3 contact hours, 5 students enrolled
GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)
4 credits, 6 contact hours, 70 students enrolled

Fall Semester 2006

GEOS 605 Geochronology
3 credits, 3 contact hours, 9 students enrolled

Spring Semester 2007

GEOS 430 Statistics and Data Analysis in Geology
3 credits, 3 contact hours, 16 students enrolled
GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)
4 credits, 6 contact hours, 70 students enrolled
GEOS 4930 Oral Communication in Geology
1 credit, 2 contact hours, 8 students enrolled

Fall Semester 2007

GEOS 475/675 Presentation Skills for Geoscientists (co-taught with R. Newberry)
2 credits, 4 contact hours, 5 students enrolled

Spring Semester 2008

GEOS 430 Statistics and Data Analysis in Geology
3 credits, 3 contact hours, 13 students enrolled

GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)

4 credits, 6 contact hours, 80 students enrolled

GEOS 4930 Oral Communication in Geology

1 credit, 2 contact hours, 8 students enrolled

Summer Semester 2008

GEOS 120 Glaciers, Earthquakes and Volcanoes (co-taught with D. Christensen and J.

Amundson) 4 credits, 6 contact hours, 14 students enrolled

Fall Semester 2008

GEOS 605 Geochronology

3 credits, 3 contact hours, 9 students enrolled

GEOS 475/675 resentation Skills for Geoscientists (co-taught with R. Newberry)

2 credits, 4 contact hours, 6 students enrolled

Spring Semester 2010

GEOS 101X The Dynamic Earth (co-taught with Rainer Newberry)

4 credits, 6 contact hours, 50 students enrolled

FUNDED PROPOSALS

The timing of a Middle Pleistocene glacial episode in Beringia by the $^{40}\text{Ar}/^{39}\text{Ar}$ dating of the Lava Creek Basalts, Seward peninsula, Alaska, submitted April 1990 to Faculty Small Grants Program, UAF, \$5000.

Acquisition of a High-sensitivity $^{40}\text{Ar}/^{39}\text{Ar}$ dating system for the University of Alaska Fairbanks, submitted March 1992 to the National Science Foundation, \$120,000.

Acquisition of a High-sensitivity $^{40}\text{Ar}/^{39}\text{Ar}$ dating system for the University of Alaska Fairbanks, submitted March 1992 to the UAF Chancellor for partial matching of the NSF grant, \$30,000 .

Acquisition of a High-sensitivity $^{40}\text{Ar}/^{39}\text{Ar}$ dating system for the University of Alaska Fairbanks, submitted December 1992 to the UA Presidents Natural Resources Fund for partial matching of the NSF grant, \$40,000 .

Investigation of Alaska's Geologic resources and hazards through high precision $^{40}\text{Ar}/^{39}\text{Ar}$ dating, submitted March 1992 to the Alaska Science and Technology Foundation, \$89,156.

Mesozoic to present day tectonics of the eastern Sakha Republic, Russia: A cooperative research proposal with the Yakut Science Center, submitted September 1992 to the National Science Foundation, co-principal investigators, David B. Stone and Kazuya Fujita, \$85,429

Research experience for undergraduates in the geosciences, submitted September 1992 to the National Science Foundation, co-principal investigators Doug Christensen and David Stone, amount \$90,000.

Mesozoic to present day tectonics of northeastern Russia: A cooperative research proposal with the Yakut Science Center and NEISRI, submitted September 1994 to the National Science Foundation, co-principal investigators, David B. Stone and Kazuya Fujita, \$140,707

Integrated geologic studies to extend our understanding of ANWR into other parts of the Brooks Range, the subsurface of the North Slope and adjacent parts of the circumarctic, submitted May 1995 to various oil companies, amount requested per company: ~\$40,000, co-principal investigators, C. Hanks, W. Wallace, K. Crowder (funded for \$80,000).

Research experience for undergraduates in the geosciences, NSF, began 1/96 for 3 years, co-principal investigator, Douglas Christensen, amount \$147,973, continued through 2005.

Mesozoic to present day tectonics of northeast Russia: A cooperative research program with the Yakut Science Center and NEISRI, 6/1/97 1 year, Paul Layer David Stone, Kazuya Fujita, PI, , OPP, NSF, \$26,207

40Ar/39Ar geochronology of gold deposits in the Yana-Kolyma belt, NE Russia, submitted 1/98 to Placer Dome Inc. 1 year, co-principal investigator Rainer Newberry, \$12,000

Collaborative Research: Geomagnetic field for the last 5 Ma co-PI with D. Stone and researchers from other universities, \$69,192 from NSF

Upgrade for the VG-3600 Mass Spectrometer, \$120,000 from NSF. Start date July 1, 2002.

Collaborative Research: The record of recharge and storage in the El Chichon magma system through Ar isotopic and experimental petrologic constraints, with J. Gardner, UT Austin, \$136,963 2 years, start date July 1, 2004

A long-term effort to determine 40Ar/39Ar ages of Alaskan mineral deposits: proposal for \$20,000 from the USGS submitted with R. Newberry start date October 1, 2004.

Collaborative Research: Causes and Mechanisms of Focused Exhumation Along the Denali Fault, Eastern Alaska Range, From NSF \$153,000 (with Syracuse University and UC Davis.

Geochronology Laboratory operations support, \$70,000. This is the annual budget for the geochronology laboratory, with funding coming from various contracts and general fund support for the Geophysical Institute.

In addition to these funded proposals, I have submitted an average of two proposals per year to the National Science Foundation for research support some of which have not been funded.

Conferences attended (1994 – 2009 only)

* as presenter, % as session organizer, # as recruiter

2009

STEP workshop

*JKASP Workshop, Fairbanks
*American Geophysical Union
CCAS new dean's workshop, Denver, CO

2008

*Goldschmidt Conference, Vancouver, Canada
*%FT2008 Conference, Anchorage, AK
CCAS meeting, Portland, OR

2007

*El Chichon workshop, San Cristobal de las Casas, Mexico
CCAS meeting, Chicago, IL

2006

American Geophysical Union
GSA Cordilleran meeting

2005

American Geophysical Union

2004

*Alaska Miners Association Annual Meeting, Fairbanks, Alaska
*%American Geophysical Union

2003

*Alaska Geological Society Technical Conference, Fairbanks, Alaska
*American Geophysical Union

2002

*2002 Pacific Section AAPG/Western Region SPE Conference, Energy Frontiers: A
2002 Perspective, A Joint Conference of Geoscientists and Petroleum Engineers,
May 18-23, 2002, Anchorage Alaska
*3rd Biennial Workshop on Subduction Processes, Fairbanks, AK
*American Geophysical Union

2001

Alaska Geological Society Technical Conference, Fairbanks, Alaska
*American Geophysical Union
American Association for Higher Education 9th annual conference on faculty roles and
rewards, Tampa, Florida

2000

#Geological Society of America, Reno, Nevada
American Geophysical Union

1999

%Alaska Geological Society Technical Conference, Fairbanks, Alaska
*American Geophysical Union

Meeting for Chairs and Heads of Earth Science Departments sponsored by the American Geophysical Union, Washington DC

1998

#Geological Society of America, Toronto, Canada

Alaska Geological Society Technical Conference, Anchorage, Alaska

1997

*#Geological Society of America, Salt Lake City, Utah

*%American Geophysical Union, San Francisco, California

Meeting for Chairs and Heads of Earth Science Departments sponsored by the American Geophysical Union, Washington DC

1996

*American Geophysical Union, San Francisco, California

1995

*Alaskan Anthropological Conference, Anchorage, Alaska

*Geological Society of America, Cordillerian Section, Fairbanks, Alaska

*American Geophysical Union, San Francisco, California

1994

*International Conference on Arctic Margins, Russian Academy of Sciences, Magadan, Russia

*Eighth International Conference on Geochronology, Cosmochronology and Isotope Geology, Berkeley, California

*Nordic Winter Meeting in Lulea, Sweden,

July, 2011.