

Dr. Richard E. Hanson

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Education:

- 1983 Ph.D. in Geology, Columbia University, New York, New York. Dissertation title: "Volcanism, plutonism, and sedimentation in a Late Devonian submarine island-arc setting, northern Sierra Nevada, California." Ph.D. supervisor: Dr. R.A. Schweickert.
- 1977 M.S. in Geology, Oklahoma State University, Stillwater, Oklahoma. Thesis title: "Petrology and geochemistry of the Carlton Rhyolite, southern Oklahoma." M.S. supervisor: Dr. Z. Al-Shaieb.
- 1975 B.S. in Geology, B.S. in Zoology, Oklahoma State University, Stillwater, Oklahoma.

Employment:

- 2000-present Full Professor, Department of Geology, Texas Christian University.
- 2004-2010 Chairman, Department of Geology, Texas Christian University.
- 1997-present Herndon Professor of Geology (endowed professorship, initially at Associate Professor level), Department of Geology, Texas Christian University.
- 1995-96 Fulbright Research Associate, University of Botswana and University of Zimbabwe (during sabbatical leave).
- 1994-97 Associate Professor, Department of Geology, Texas Christian University.
- 1988-94 Assistant Professor, Department of Geology, Texas Christian University.
- 1985-88 Adjunct Assistant Professor, Department of Geological Sciences, Ohio State University.
- 1983-85 Lecturer (equivalent to Assistant Professor), Department of Geology, School of Mines, University of Zambia.

Regular Teaching Experience:

- 1988-present (Texas Christian University). Courses taught: Introductory Geology, Mineralogy, Introductory Petrology, Optical Mineralogy and Petrography, Geochemistry, Volcanology, Igneous and Metamorphic Petrology. Additional duties: supervision of undergraduate and graduate research projects; Graduate Advisor for department, 1991-2007.
- 1996 (University of Zimbabwe, while on sabbatical). Total of 30 hours of lectures on Geology of the Central African Copperbelt, Principles of Applied Geochronology, and Introduction to Geochronology, given to M.Sc. and fourth year (Honors) students in the Geology Department.

- 1985-88 (Ohio State University). Courses taught: Introductory Geology, Stratigraphy and Sedimentation, Field Geology (six-week course in Utah). Additional duties: supervision of undergraduate and graduate research projects.
- 1983-85 (University of Zambia). Courses taught: Systematic and Optical Mineralogy, Metamorphic Petrology, Stratigraphy and Sedimentation, Structural Geology, Introductory Field Geology. Additional duties: supervision of undergraduate and graduate research projects and 25 final-year independent mapping projects.

External Research Grants:

- 2009 National Science Foundation (Tectonics Program), Using well-dated paleomagnetic poles from the Kalahari and Congo cratons to constrain Rodinia configurations and assembly of central Gondwana, \$32,393 (supplemental funding for project initially funded in 2005).
- 2005 National Science Foundation (Tectonics Program), Using well-dated paleomagnetic poles from the Kalahari and Congo cratons to constrain Rodinia configurations and assembly of central Gondwana, \$225,294.
- 2000 National Science Foundation (Tectonics Program), Constraints on Mesoproterozoic supercontinent assembly and plate dynamics: studies on the 1.1 Ga Umkondo large igneous province in southern Africa, \$166,949.
- 1995 National Science Foundation (Tectonics Program), Constraints on Gondwana assembly: geologic and isotopic studies of the Pan-African Zambezi orogenic belt in southern Africa, \$179,941.
- 1995 Fulbright Research Scholarship, Geologic and isotopic studies of ancient mountain-building processes and crustal evolution in southern Africa, \$42,180.
- 1993 National Science Foundation (Tectonics Program), Pluton emplacement in relation to Jurassic volcanic arc evolution and orogenesis in the Northern Sierra terrane, California, \$57,983.
- 1990 National Science Foundation (Polar Programs - Earth Sciences), The tectonomagmatic setting of Early to Middle Jurassic bimodal volcanism in the Transantarctic Mountains, \$24,020.
- 1983 National Science Foundation (International Programs - Sub-Saharan Africa), Tectonostratigraphic study of the Middle Proterozoic Irumide belt, Zambia, \$19,920.

Internal Research Grants and Other Sources of Funding:

- 2015 Swanson Endowment Fund in Geology Research, initial amount of \$1,500,000 to support field-based research, with myself and another colleague in the TCU Department of Geological Sciences as the main recipients.
- 2012 Texas Christian University Research Grant, Paleomagnetic studies of ancient igneous rocks in Botswana: constraints on the evolution of Earth's magnetic field, \$3,710.
- 2011 Texas Christian University Research Grant, Age and tectonic significance of volcanic boulders contained in ancient submarine sedimentary deposits in the Marathon area, West Texas, \$4,000.

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- 2008 Texas Christian University Research Grant, Age and regional relations of the Mashonaland igneous province in Zimbabwe (southern Africa), \$4,000.
- 2005 Texas Christian University Research Grant, Geochemical and isotopic studies of magmatic rocks in an ancient mountain belt in southern Africa, \$3,965.
- 2002 Texas Christian University Research Grant, Geochemical studies of an ancient magmatic province in southern Africa, \$3,500.
- 1998 Texas Christian University Research Grant, Age and regional significance of isolated Precambrian bedrock exposures in the Kalahari Desert of Botswana: Continuation, \$3,500.
- 1997 Texas Christian University Research Grant, Age and regional significance of isolated Precambrian bedrock exposures in the Kalahari Desert of Botswana, \$3,500.
- 1994 Texas Christian University Research Grant, Nature and timing of ancient mountain-building processes in southern Africa, \$3,500.
- 1990 Texas Christian University Research Grant, Structure, age, and regional significance of the Hook granite-gneiss block, Zambia: Continuation, \$3,500.
- 1989 Texas Christian University Research Grant, Structure, age, and regional significance of the Hook granite-gneiss block, Zambia, \$2,500.

Published Papers (Peer-Reviewed):

(Asterisk indicates coauthor is or was a graduate or undergraduate student under my supervision)

- 2024 Galletly, A.J., Graettinger, A.H., and Hanson, R.E., Formation of billowed structures along margins of basaltic intrusions: Insights from Big Bend National Park, Texas and 71 Gulch, Idaho: *Journal of Volcanology and Geothermal Research*, v. 446, 107948.
- 2024 Gumsley, A.P., de Kock, M., Ernst, R., Gumsley, A., Hanson, R., Kamo, S., Knoper, M., Lewandowski, M., Luks, B., Mamuse, A., and Söderlund, U., The Mutare–Fingeren dyke swarm: the enigma of the Kalahari craton's exit from supercontinent Rodinia, in van Schijndel, V., Cutts, K., Pereira, I., Guitreau, M., Volante, S., and Tedeschi, M. (eds.), *Minor Minerals, Major Implications: Using Key Mineral Phases to Unravel the Formation and Evolution of Earth's Crust*: Geological Society of London Special Publication 537, p. 359-380.
- 2024 Salminen, J., Evans, D.A.D., Trindade, R.I.F., and Hanson, R., Söderlund, U., Ernst, R.E., Klausen, M.B., and Fieldhouse, I., Congo-São Francisco craton in Paleoproterozoic-Mesoproterozoic supercontinent Nuna: *Precambrian Research*, v. 406, 107380.
- 2023 Dickerson, P.W., Hall, B.R., Stockli, D.F., Stockli, L.D., Hanson, R., Fanning, C.M., and O'Sullivan, P., Pre-Pangean evolution of central southern Laurentia: Insights from zircon U/Pb geochronology, Marathon-Solitario fold-and-thrust belt, west Texas, in Whitmeyer, S.J., Williams, M.L., Tikoff, B., and Kellett, D.A. (eds.), *Laurentia: Turning Points in the Evolution of a Continent*: Geological Society of America Memoir 220, p. 381-397.
- 2021 Harris, M., Mapani, B.S., Cornell, D.H., Malobela, T., Weber, B., Kristoffersen, M., Lehman Franco, K.*, and Hanson, R., Chronostratigraphic correlation of the volcanic 1.21 Ga Barby and

- Haiber Flats Formations in the Sinclair Supergroup of Namibia: *Journal of African Earth Sciences*, v. 178, 104180.
- 2021 Wall, C.J., Hanson, R., Schmitz, M., Price, J.D., Donovan, R.N., Boro, J.R.*, Eschberger, A.M.*, and Toews, C.E.*, Integrating zircon trace-element geochemistry and high-precision U-Pb zircon geochronology to resolve the timing and petrogenesis of the late Ediacaran-Cambrian Wichita igneous province, Southern Oklahoma aulacogen, USA: *Geology*, v. 49, p. 268-272.
- 2020 Cornell, D.H., Harris, M., Mapani, B.S., Malobela, T., Frei, D., Kristoffersen, M., Lehman Franco, K.*, and Hanson, R., Dating of Guperas Formation rhyolites changes the stratigraphy of the Mesoproterozoic Sinclair Supergroup of Namibia: *South African Journal of Geology*, v. 123, p. 633-648.
- 2020 Powerman, V., Hanson, R., Nosova, A., Girty, G.H., Hourigan, J., and Tretiakov, A., Nature and timing of Late Devonian-early Mississippian island-arc magmatism in the Northern Sierra terrane and implications for regional Paleozoic plate tectonics: *Geosphere*, v. 16, p. 258-280.
- 2020 Wei, X., Chen, H., Zheng, H., Wang, P., , Hanson, R.E., Shi, X., Lin, X., Cheng, X., Miocene long-runout debris-avalanche deposits in the eastern Pamir foreland basin record cataclasis and fragmentation mechanisms: *Journal of Volcanology and Geothermal Research*, v. 407, 107105.
- 2018 Salminen, J., Hanson, R., Evans, D.A., Gong, Z., Larson, T., Walker, O., Gumsley, A., Söderlund, U., and Ernst, R., Direct Mesoproterozoic connection of the Congo and Kalahari cratons in proto-Africa: Strange attractors across supercontinental cycles: *Geology*, v. 46, p. 1011-1014.
- 2016 Hanson, R.E., Roberts, J.M.*, Dickerson, P.W., and Fanning, C.M., Cryogenian intraplate magmatism along the buried southern Laurentian margin: Evidence from volcanic clasts in Ordovician strata, Marathon uplift, west Texas: *Geology*, v. 44, p. 539-542.
- 2016 Panzik, J.E., Evans, D.A.D., Kasbohm, J.J., Hanson, R., Gose, W., and DesOrmeau, J., Using palaeomagnetism to determine late Mesoproterozoic palaeogeographic history and tectonic relations of the Sinclair Terrane, Namaqua orogen, Namibia, in Li, Z.X., Evans, D.A.D., and Murphy, J.B., eds., *Supercontinent cycles through Earth history*: Geological Society of London Special Publication 424, p. 119-143.
- 2015 Swanson-Hysell, N.L., Kilian, T.M., and Hanson, R.E., A new grand mean palaeomagnetic pole for the 1.11 Ga Umkondo large igneous province with implications for palaeogeography and the geomagnetic field: *Geophysical Journal International*, v. 203, p. 2237-2247.
- 2013 Gose, W.A., Hanson, R.E., Harmer, R.E., and Seidel, E.K.*, Reconnaissance paleomagnetic studies of Mesoproterozoic alkaline igneous complexes in the Kaapvaal craton, South Africa: *Journal of African Earth Sciences*, v. 85, p. 22-30.
- 2013 Hanson, R.E., Puckett, R.E., Jr., Keller, G.R., Brueseke, M.E., Bulen, C.L., Mertzman, S.A., Finegan, S.A.*, and McCleery, D.A.*, Intraplate magmatism related to opening of the southern Iapetus Ocean: Cambrian Wichita igneous province in the Southern Oklahoma rift zone: *Lithos*, v. 174, p. 57-70 (invited paper for special issue on LIPs and Supercontinents).
- 2012 Bullen, D.S., Hall, R.P., and Hanson, R.E., Geochemistry and petrogenesis of mafic sills in the 1.1 Ga Umkondo large igneous province, southern Africa: *Lithos*, v. 142-143, p. 116-129.
- 2011 Hanson, R.E., Rioux, M., Gose, W.A., Blackburn, T.J., Bowring, S.A., Mukwakwami, J., and

- Jones, D.L., Paleomagnetic and geochronological evidence for large-scale post-1.88 Ga displacement between the Zimbabwe and Kaapvaal cratons along the Limpopo belt: *Geology*, v. 39, p. 487-490.
- 2011 Loewy, S.L., Dalziel, I.W.D., Pisarevsky, S., Connelly, J.N., Tait, J., Hanson, R.E., and Bullen, D., Coats Land crustal block, East Antarctica: a 'tectonic tracer' for Laurentia?: *Geology*, v. 39, p. 859-862.
- 2010 Rioux, M., Bowring, S., Dudás, F., and Hanson, R., Characterizing the U-Pb systematics of baddeleyite through chemical abrasion: Application of multi-step digestion methods to baddeleyite geochronology: *Contributions to Mineralogy and Petrology*, v. 160, p. 777-801.
- 2009 Befus, K.S.*, Hanson, R.E., Miggins, D.P., Breyer, J.A., and Busbey, A.B., Nonexplosive and explosive magma/wet-sediment interaction during emplacement of Eocene intrusions into Cretaceous to Eocene strata, Trans-Pecos igneous province, West Texas: *Journal of Volcanology and Geothermal Research*, v. 181, p. 155-172.
- 2008 Befus, K.S.*, Hanson, R.E., Lehman, T.M., and Griffin, W.R., Cretaceous basaltic phreatomagmatic volcanism in West Texas: maar complex at Peña Mountain, Big Bend National Park: *Journal of Volcanology and Geothermal Research*, v. 173, p. 245-264.
- 2007 Breyer, J.A., Busbey, A.B., Hanson, R.E., Befus, K.E.*, Griffin, W.R., Hargrove, U.S., and Bergman, S.C., Evidence for Late Cretaceous volcanism in Trans-Pecos Texas: *Journal of Geology*, v. 115, p. 243-251.
- 2006 Gose, W.A., Hanson, R.E., Dalziel, I.W.D., Pancake, J.A. *, and Seidel, E.K. *, Paleomagnetism of the 1.1 Ga Umkondo large igneous province in southern Africa: *Journal of Geophysical Research*, v. 111, 18 p. (doi:10.1029/2005JB003897).
- 2006 Hanson, R.E., Harmer, R.E., Key, R.M., Blenkinsop, T.G., Bullen, D.S., Dalziel, I.W.D., Gose, W.A., Hall, R.P., Kampunzu, A.B., Mukwakwami, J., Munyanyiwa, H., Pancake, J.A. *, Seidel, E.K. *, and Ward, S.E., Mesoproterozoic intraplate magmatism in the Kalahari craton: a review: *Journal of African Earth Sciences* (special issue on Mesoproterozoic orogenic belts in southern and central Africa), v. 46, p. 141-167.
- 2004 Hanson, R.E., Crowley, J.L., Bowring, S.A., Ramezani, J., Gose, W.A., Dalziel, I.W.D., Pancake, J.A. *, Seidel, E.K. *, Blenkinsop, T.G., and Mukwakwami, J., Coeval large-scale magmatism in the Kalahari and Laurentian cratons during Rodinia assembly: *Science*, v. 304, p. 1126-1129.
- 2004 Hanson, R.E., Gose, W.A., Crowley, J.L., Ramezani, J., Bowring, S.A., Bullen, D.S., Hall, R.P., Pancake, J.A. *, and Mukwakwami, J., Paleoproterozoic intraplate magmatism and basin development on the Kaapvaal craton: age, paleomagnetism and geochemistry of ~1.93 to ~1.87 Ga post-Waterberg dolerites: *South African Journal of Geology* (special volume on Kaapvaal Craton), v. 107, p. 233-254.
- 2003 Hanson, R.E., Proterozoic geochronology and tectonic evolution of southern Africa, in Yoshida, M., Windley, B.F., and Dasgupta, S. (eds.), *Proterozoic East Gondwana: supercontinent assembly and breakup*: Geological Society of London Special Publication 206, p. 427-463.
- 2003 Hargrove, U.S.*, Hanson, R.E., Martin, M.W., Blenkinsop, T.G., Bowring, S.A., Walker, N., and Munyanyiwa, H., Tectonic evolution of the Zambezi orogenic belt: geochronological, structural,

- and petrological constraints from northern Zimbabwe: *Precambrian Research*, v. 123, p. 159-186.
- 2003 Singletary, S.J.*, Hanson, R.E., Martin, M.W., Crowley, J.L., Bowring, S.A., Key, R.M., Ramokate, L.V., Direng, B.B., and Krol, M.A., Geochronology of basement rocks in the Kalahari Desert, Botswana, and implications for regional Proterozoic tectonics: *Precambrian Research*, v. 121, p. 47-71.
- 2003 Templeton, J.H.*, and Hanson, R.E., Jurassic submarine arc-apron deposits and associated magma/wet-sediment interaction, northern Sierra Nevada, California: *Journal of Volcanology and Geothermal Research*, v. 128, p. 299-326.
- 2001 Elliot, D.H., and Hanson, R.E., Origin of widespread, exceptionally thick phreatomagmatic tuff breccia in the Middle Jurassic Prebble and Mawson Formations, Antarctica: *Journal of Volcanology and Geothermal Research*, v. 111, p. 183-201.
- 2001 Majaule, T., Hanson, R.E., Key, R.M., Singletary, S.J.*, Martin, M.W., and Bowring, S.A., The Magondi belt in northeast Botswana: regional relations and new geochronological data from the Sua Pan area: *Journal of African Earth Sciences*, v. 32, p. 257-267.
- 2001 Vinyu, M.L., Hanson, R.E., Martin, M.W., Bowring, S.A., Jelsma, H.A., and Dirks, P.H.G.M., U-Pb zircon ages from a craton-margin Archaean orogenic belt in northern Zimbabwe: *Journal of African Earth Sciences*, v. 32, p. 103-114.
- 1999 Hanson, R.E., and Hargrove, U.S.*, Processes of magma/wet-sediment interaction in a large-scale Jurassic andesitic peperite complex, northern Sierra Nevada, California: *Bulletin of Volcanology*, v. 60, p. 610-626.
- 1999 Vinyu, M.L., Hanson, R.E., Martin, M.W., Bowring, S.A., Jelsma, H.A., Krol, M.A., and Dirks, P.H.G.M., U-Pb and $^{40}\text{Ar}/^{39}\text{Ar}$ geochronological constraints on the tectonic evolution of the easternmost part of the Zambezi orogenic belt, northeast Zimbabwe: *Precambrian Research*, v. 98, p. 67-82.
- 1998 Hanson, R.E., Martin, M.W., Bowring, S.A., and Munyanyiwa, H., U-Pb zircon age for the Umkondo dolerites, eastern Zimbabwe: 1.1-Ga large igneous province in southern Africa/East Antarctica and possible Rodinia correlations: *Geology*, v. 26, p. 1143-1146.
- 1997 Hargrove, U.S.*, and Hanson, R.E., Geology of the Huntley Mill Lake sill complex: a multiphase peperitic sill intruded into wet sediments, Jurassic, northern Sierra Nevada, California, in Girty, G.H., Hanson, R.E., and Cooper, J.D. (eds.), *Geological evolution of the western Cordillera: perspectives from undergraduate research*: Society for Sedimentary Geology (SEPM), Pacific Section, Book 82, p. 111-122.
- 1997 Kulow, M.J.*, Hanson, R.E., and Girty, G.H., The Big Bend shear zone: Early Cretaceous ductile deformation associated with pluton emplacement in the Northern Sierra terrane, California, in Girty, G.H., Hanson, R.E., and Cooper, J.D. (eds.), *Geological evolution of the western Cordillera: perspectives from undergraduate research*: Society for Sedimentary Geology (SEPM), Pacific Section, Book 82, p. 79-90.
- 1997 Munyanyiwa, H., Hanson, R.E., Blenkinsop, T.G., and Treloar, P.J., Geochemistry of amphibolites and quartzofeldspathic gneisses in the Pan-African Zambezi belt, northwest

- Zimbabwe: evidence for bimodal magmatism in a continental rift setting: *Precambrian Research*, v. 81, p. 179-196.
- 1997 Wilson, T.J., Grunow, A.M., and Hanson, R.E., Gondwana assembly: the view from southern Africa and East Gondwana: *Journal of Geodynamics*, v. 23, p. 263-286 (invited paper for special issue on assembly and dispersal of supercontinents).
- 1996 Grunow, A., Hanson, R.E., and Wilson, T.J., Were aspects of Pan-African deformation linked to Iapetus opening? *Geology*, v. 24, p. 1063-1066.
- 1996 Hanson, R.E., and Elliot, D.H., Rift-related Jurassic basaltic phreatomagmatism in the central Transantarctic Mountains: precursory stage to flood-basalt volcanism: *Bulletin of Volcanology*, v. 58, p. 327-347.
- 1995 Breyer, J.A., Busbey, A.B., Hanson, R.E., and Roy, E.C., Possible new evidence for the origin of metazoans prior to one b.y. ago: sediment-filled tubes from the Mesoproterozoic Allamoore Formation, Trans-Pecos Texas: *Geology*, v. 23, p. 269-272.
- 1995 DeGroat, P.J.*, Donovan, R.N., Hanson, R.E., and Weaver, B.L., Cambrian diabase and gabbro in the Blue Creek Canyon area, Wichita Mountains, southwestern Oklahoma: *Oklahoma Geology Notes*, v. 55, p. 168-186.
- 1995 Girty, G.H., Hanson, R.E., Girty, M.S., Schweickert, R.A., Harwood, D.S., Yoshinobu, A.S., Bryan, K.A., Skinner, J.E., and Hill, C.A., Timing of emplacement of the Haypress Creek and Emigrant Gap plutons: implications for the timing and controls of Jurassic orogenesis, northern Sierra Nevada, California, in Miller, D.M., and Busby, C. (eds.), *Jurassic magmatism and tectonics of the North American Cordillera*: Geological Society of America Special Paper 299, p. 191-201.
- 1994 Hanson, R.E., Wilson, T.J., and Munyanyiwa, H., Geologic evolution of the Neoproterozoic Zambezi orogenic belt in Zambia: *Journal of African Earth Sciences*, v. 18, p. 135-150.
- 1994 Miller, C.A.*, Barton, M., Hanson, R.E., and Fleming, T.H., An Early Cretaceous volcanic arc/marginal basin transition zone, Peninsula Hardy, southernmost Chile: *Journal of Volcanology and Geothermal Research*, v. 63, p. 33-58.
- 1993 Girty, G.H., Yoshinobu, A.S., Wracher, M.D., Girty, M.S., Bryan, K.A., Skinner, J.E., McNulty, B.A., Bracchi, K.A., Harwood, D.S., and Hanson, R.E., U-Pb zircon geochronology of the Emigrant Gap composite pluton, northern Sierra Nevada, California: implications for the Nevadan orogeny, in Dunne, G., and McDougall, K. (eds.), *Mesozoic paleogeography of the western U.S. - II*: Society of Economic Paleontologists and Mineralogists, Pacific Section, Book 71, p. 323-332.
- 1993 Hanson, R.E., and Wilson, T.J., Large-scale rhyolite peperites (Jurassic, southern Chile): *Journal of Volcanology and Geothermal Research*, v. 54, p. 247-264.
- 1993 Hanson, R.E., Wardlaw, M.S., Wilson, T.J., and Mwale, G., U-Pb zircon ages from the Hook granite massif and Mwembeshi dislocation: constraints on Pan-African deformation, plutonism, and transcurrent shearing in central Zambia: *Precambrian Research*, v. 63, p. 189-209.
- 1993 Wilson, T.J., Hanson, R.E., and Wardlaw, M.S., Late Proterozoic evolution of the Zambezi belt,

- Zambia: implications for regional Pan-African tectonics and shear displacements in Gondwana, in Findlay, R.H., Unrug, R., Banks, M.R., and Veevers, J.J. (eds.), *Gondwana 8 - assembly, evolution, and dispersal (Gondwana 8 Symposium Volume)*: Balkema, Rotterdam, p. 69-82.
- 1992 Bigger, S.E.*, and Hanson, R.E., Devitrification textures and related features in the Carlton Rhyolite in the Blue Creek Canyon area, Wichita Mountains, southwestern Oklahoma: *Oklahoma Geology Notes*, v. 52, p. 124-142.
- 1991 Hanson, R.E., Quenching and hydroclastic disruption of andesitic to rhyolitic intrusions in a submarine island-arc sequence, northern Sierra Nevada, California: *Geological Society of America Bulletin*, v. 103, p. 804-816.
- 1991 Hanson, R.E., and Wilson, T.J., Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern Andes, Chile and Argentina, in Harmon, R.S., and Rapela, C.W. (eds.), *Andean magmatism and its tectonic setting*: Geological Society of America Special Paper 265, p. 13-27.
- 1991 Wilson, T.J., Grunow, A.M., Hanson, R.E., and Schmitt, K.R., Subduction complex rocks on Diego Ramirez Islands, Chile, in Thomson, M.R.A., Crame, J.A., and Thomson, J.W. (eds.), *Geological evolution of Antarctica*: Cambridge University Press, p. 419-421.
- 1989 Wilson, T.J., Hanson, R.E., and Grunow, A.M., Multistage melange formation within an accretionary complex, Diego Ramirez Islands, southern Chile: *Geology*, v. 17, p. 11-14.
- 1988 Hanson, R.E., Saleeby, J.B., and Schweickert, R.A., Composite Devonian island-arc batholith in the northern Sierra Nevada, California: *Geological Society of America Bulletin*, v. 100, p. 446-457.
- 1988 Hanson, R.E., Wilson, T.J., and Wardlaw, M.S., Deformed batholiths in the Pan-African Zambezi belt, Zambia: age and implications for regional Proterozoic tectonics: *Geology*, v. 16, p. 1134-1137.
- 1988 Hanson, R.E., Wilson, T.J., Brueckner, H.K., Onstott, T.C., Wardlaw, M.S., Johns, C.C., and Hardcastle, K.C., Reconnaissance geochronology, tectonothermal evolution, and regional significance of the Middle Proterozoic Choma-Kalomo block, southern Zambia: *Precambrian Research*, v. 42, p. 39-61.
- 1988 Munyanyiwa, H.*, and Hanson, R.E., Geochemistry of marbles and calc-silicate rocks in the Pan-African Zambezi belt, Zambia: *Precambrian Research*, v. 38, p. 177-200.
- 1986 Hanson, R.E., and Schweickert, R.A., Stratigraphy of mid-Paleozoic island-arc rocks in part of the northern Sierra Nevada, Sierra and Nevada Counties, California: *Geological Society of America Bulletin*, v. 97, p. 986-998.
- 1985 Schweickert, R.A., Bogen, N.L., Girty, G.H., Hanson, R.E., and Merguerian, C., Timing and structural expression of the Nevadan orogeny, Sierra Nevada, California: Reply: *Geological Society of America Bulletin*, v. 96, p. 1349-1352.
- 1984 Elthon, D., Hanson, R., Allen, R., and Vergara, H., Unusual ocellar textures in diabases from the Sarmiento ophiolite complex, Chile: *Canadian Journal of Earth Sciences*, v. 21, p. 376-378.

- 1984 Elthon, D., Lawrence, J.R., Hanson, R.E., and Stern, C., Modelling of oxygen-isotope data from the Sarmiento ophiolite complex, Chile, in Gass, I.G., Lippard, S.J., and Shelton, A.W. (eds.), *Ophiolites and oceanic lithosphere*: Geological Society of London Special Publication No. 13, p. 185-197.
- 1984 Girty, G.H., Wardlaw, M.S., Schweickert, R.A., Hanson, R.E., and Bowring, S.A., Timing of pre-Antler deformation in the Shoo Fly Complex, Sierra Nevada, California: *Geology*, v. 12, p. 673-676.
- 1984 Schweickert, R.A., Bogen, N.L., Girty, G.H., Hanson, R.E., and Merguerian, C., Timing and structural expression of the Nevadan orogeny, Sierra Nevada, California: *Geological Society of America Bulletin*, v. 95, p. 967-979.
- 1982 Hanson, R.E., and Schweickert, R.A., Chilling and brecciation of a Devonian rhyolite sill intruded into wet sediments, northern Sierra Nevada, California: *Journal of Geology*, v. 90, p. 717-724.
- 1980 Al-Shaieb, Z., Hanson, R.E., Donovan, R.N., and Shelton, J.W., Petrology and diagenesis of sandstones in the Post Oak Formation (Permian), southwestern Oklahoma: *Journal of Sedimentary Petrology*, v. 50, p. 43-50.
- 1980 Hanson, R.E., and Al-Shaieb, Z., Voluminous subalkaline silicic magmas related to intracontinental rifting in the Southern Oklahoma aulacogen: *Geology*, v. 8, p. 180-184.
- 1977 Al-Shaieb, Z., Olmsted, R.W., Shelton, J.W., May, R.T., Owens, R.T., and Hanson, R.E., Uranium potential of Permian and Pennsylvanian sandstones in Oklahoma: *American Association of Petroleum Geologists Bulletin*, v. 61, p. 360-375.

Published Papers (Not Peer-Reviewed):

(Asterisk indicates coauthor is or was a graduate or undergraduate student under my supervision)

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Theses Supervised:

M.S. Theses:

- 2023 McClain, W.G., Petrogenetic relationships of the Pliocene Barker Pass volcanic debris-avalanche deposits in the northern Sierra Nevada, California: Texas Christian University.
- 2022 Burden, L., Using clinopyroxene chemistry to constrain magma plumbing systems in a 1.2 Ga andesitic to shoshonitic volcanic arc, Barby Formation, Namibia: Texas Christian University.
- 2020 DeBone, K., Paleocene basaltic phreatomagmatic volcanic complex in Big Bend National Park, West Texas: Texas Christian University.
- 2020 Ohrmundt, S.C., Complex shallow-level andesitic magma plumbing systems and magma/sediment interaction in a Mesoproterozoic volcanic arc setting, SW Namibia: Texas Christian University.
- 2019 Lehman, K.M., Geochemical constraints on evolving 1.36-1.1 Ga intraplate and volcanic arc regimes in the Konkiep Terrane, Namaqua-Natal orogenic belt, SW Namibia: Texas Christian University.
- 2016 Finegan, S.A., Physical volcanology and geochemistry of the Carlton Rhyolite (Cambrian) in the Fort Sill area, Wichita Mountains, southwestern Oklahoma: Texas Christian University.

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- 2015 Boro, J.R., Volcanic lithofacies and geochemistry of Cambrian rift-related rhyolites in the West Timbered Hills, Arbuckle Mountains, southern Oklahoma: Texas Christian University.
- 2015 Harmon, K.L., Structural evolution and tectonic significance of the Jurassic (?) Talbot fault zone in the Northern Sierra terrane, California: Texas Christian University (co-supervised with Helge Alsleben).
- 2015 Toews, C.E., Cambrian phreatomagmatic igneous breccia and associated bimodal hypabyssal intrusions in the West Timbered Hills, Arbuckle Mountains, southern Oklahoma: Texas Christian University.
- 2014 Hill, J.A., Complex Eocene-Oligocene hypabyssal intrusive systems associated with basaltic phreatomagmatic vents in the area east of Peña Mountain, Big Bend National Park, West Texas: Texas Christian University.
- 2012 Eschberger, A.M., Volcanological and geochemical studies of Cambrian rift-related igneous rocks in the western Arbuckle Mountains, southern Oklahoma: Texas Christian University.
- 2012 Roberts, J.M., Petrology, geochemistry, and geochronology of volcanic clasts contained in Ordovician strata in the Marathon fold-thrust belt, West Texas: Texas Christian University.
- 2008 Bartholomew, L.T., Paleomagnetism of Neoproterozoic intraplate igneous rocks in the southwest Kalahari craton, Namibia and South Africa: Texas Christian University.
- 2006 Befus, K.S., Late Cretaceous and Eocene phreatomagmatic volcanism and magma-sediment interaction in the Big Bend area of West Texas: Texas Christian University.
- 2004 Seidel, E.K., Paleomagnetic and geochronological study of parts of the 1.1 Ga Umkondo igneous province in South Africa: Texas Christian University.
- 2003 Berkebile, M.S., Geologic and paleomagnetic studies of a Pliocene volcanic debris-avalanche deposit in the northern Sierra Nevada, California: Texas Christian University.
- 2002 Philips, C.M., Paleovolcanology of the A-type Carlton Rhyolite, Blue Creek Canyon area, Wichita Mountains, southern Oklahoma: Texas Christian University.
- 2001 Pancake, J.A., Geochronological and paleomagnetic studies of Mesoproterozoic mafic igneous rocks in Botswana: Texas Christian University.
- 1999 Hargrove, U.S., Geochronology, structure, and metamorphism of part of the Pan-African Zambezi orogenic belt, Mt. Darwin area, northeast Zimbabwe: Texas Christian University.
- 1999 Mariga, J., Structural and geochronological evolution of deep-crustal granulites, supracrustal rocks, and deformed plutons in the Zambezi orogenic belt, Rusambo Mission area, northeastern Zimbabwe: Texas Christian University.
- 1999 Singletary, S.J., Geochronology and regional tectonic significance of isolated Proterozoic basement outcrops and drill cores in the Kalahari Desert, Botswana: Texas Christian University.
- 1999 Whittington, A.L., Remote-sensing study of structural relations between the Pan-African Zambezi and Mozambique belts in northeastern Zimbabwe and adjacent parts of Mozambique: Texas

Christian University.

- 1996 Kulow, M.J., Geology, petrology, age, and intrusive relations of Cretaceous plutons in the Donner Lake - Cisco Grove area, northern Sierra Nevada, California: Texas Christian University.
- 1996 Mielke, K.L., Paleovolcanology, petrology, stratigraphy, and structure of Jurassic and Cretaceous island-arc rocks in the Webber Peak and Meadow Lake areas, Nevada and Sierra Counties, Northern Sierra terrane, California: Texas Christian University.
- 1995 Phillipson, S.E., Petrology, age, and structural relations of the composite Middle Jurassic Haypress Creek pluton, Northern Sierra terrane, California: Texas Christian University.
- 1991 Templeton, J.H., Submarine volcanism and volcanoclastic sedimentation in a Jurassic island-arc environment, northern Sierra Nevada, California: Texas Christian University.
- 1990 Miller, C.A., Field relations and mineral, rare earth, and trace element geochemistry of rocks from a Mesozoic volcanic-arc/marginal-basin transition, Peninsula Hardy, southernmost Chile: Ohio State University.
- 1985 Munyanyiwa, H., The geochemistry and metamorphism of calc-silicate rocks, marbles, and amphibolites in a portion of the Zambezi belt, southern Zambia: University of Zambia.

B.S. Theses or Senior Research Projects:

- In progress Niño, I.M., Microscopic studies of ancient, potentially rift-related plutonic igneous rocks in Colorado (Honors senior research project).
- In progress Perkey, C.W., Microscopic studies of ancient igneous dikes in the Front Range of Colorado (senior research project).
- 2016 Baylor, D., Non-explosive and explosive magma/wet-sediment interaction associated with selected Eocene hypabyssal basaltic intrusions in Big Bend National Park, west Texas (senior research project, presented as a poster at the 2016 GSA South-Central section meeting).
- 2015 Bucholz, J.F., An unusual Eocene basaltic phreatomagmatic fissure vent in Big Bend National Park, west Texas (senior research project, presented as posters at the 2015 GSA South-Central and National meetings).
- 2011 Frazier, S.J., Cambrian volcanic stratigraphy and rhyolite peperite in the Bally Mountain area, SW Oklahoma: Texas Christian University (senior research project, presented as a poster at the 2012 GSA South-Central section meeting).
- 2010 Roberts, J.M., Petrography and geochemistry of volcanic clasts in submarine Ordovician mass-flow deposits in the Marathon fold-thrust belt, West Texas: Texas Christian University (senior research project, presented as a poster at the 2010 annual GSA meeting).
- 2009 Winkler, C., A newly discovered Eocene(?) basaltic phreatomagmatic vent complex in Big Bend National Park, Trans-Pecos Texas: Texas Christian University (senior research project, presented as a poster at the GSA South-Central Section meeting).

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- 2005 Burkholder, B., Paleovolcanology of the Carlton Rhyolite, Zodletone Mountain, southern Oklahoma: Texas Christian University (senior thesis).
- 2002 Cross, J., Interflow volcanoclastic deposits in the Cambrian Carlton Rhyolite on Bally Mountain in the Slick Hills of southwestern Oklahoma: Texas Christian University (senior thesis).
- 1995 Hargrove, U.S., Geology of the Huntley Mill Lake sill complex: a multiphase peperitic sill intruded into wet sediments, Jurassic, northern Sierra Nevada, California: Texas Christian University (senior thesis).
- 1994 DeGroat, P.J., Cambrian basic intrusive rocks in the Blue Creek Canyon area, Wichita Mountains, southwestern Oklahoma: Texas Christian University (senior honors thesis).
- 1994 Kulow, M.J., The Big Bend shear zone: Early Cretaceous ductile deformation associated with pluton emplacement in the Northern Sierra terrane, California: Texas Christian University (senior thesis).
- 1991 Bigger, S.E., Devitrification of the Carlton Rhyolite in the Blue Creek Canyon area, Wichita Mountains, southern Oklahoma: Texas Christian University (senior thesis).
- 1988 Emslie, M.A., Petrography and trace-element geochemistry of metabasalts on Diego Ramirez Islands, southern Chile: Ohio State University (senior thesis).

External Examiner for Theses:

- 2023 Ncube, S., Age and petrogenesis of the Kameel Complex and other potentially related mafic intrusions, Northern Cape, South Africa (Ph.D. thesis), University of Johannesburg, South Africa.
- 2021 Harris, M., Tectonic evolution of the Konkiep terrane in southern Namibia (Ph.D. thesis), University of Namibia, Windhoek, Namibia.
- 2017 Glynn, S.M., Geochronology and evolution of the Magondi belt (Ph.D. thesis), University of the Witwatersrand, Johannesburg, South Africa.
- 2017 Gumsley, A., 2017, Validating the existence of the supercraton Vaalbara in the Mesoarchean to Paleoproterozoic (Ph.D. thesis), Lund University, Sweden (I served as Faculty Opponent during the thesis defense).
- 2015 Moabi, N.G., A geological comparison of the Espungabera Formation of central Mozambique and the Straumnsnutane Formation of western Dronning Maud Land, Antarctica (M.Sc. thesis), University of Pretoria, South Africa.
- 2011 Ueda, K.E., Orogenic decay from collision to rifting – characteristics and implications of delamination illustrated by a case study of the East African-Antarctic orogen in NE Mozambique (Ph.D. thesis), University of Bergen, Norway.
- 2006 Bull, K., Facies architecture, geochemistry and tectonic significance of the Ural Volcanics and Mount Hope Volcanics, Central Lachlan Orogen, New South Wales (Ph.D. thesis), University of Tasmania, Australia.
- 2005 Grosch, E.G., A metamorphic and geochemical study of mafic rocks across the Pencksokket-

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- Jutulstraumen discontinuity, East Antarctica (M.Sc. thesis), University of Cape Town, South Africa.
- 2005 Rainaud, C., Contributions to the geochronology and geological evolution of the Central African Copperbelt (Ph.D. thesis), University of the Witwatersrand, Johannesburg, South Africa.
- 2004 De Waele, B, The Proterozoic geological history of the Irumide belt, Zambia (Ph.D. thesis), Curtin University, Western Australia.
- 2001 Bullen, D.S., Mafic magmatism of the 1.1 Ga Umkondo large igneous province, southern Africa (Ph.D. thesis), University of Portsmouth, U.K.
- 2001 Mukwakwami, J., Geochronology and field relations of Umkondo mafic intrusions in eastern Zimbabwe (M.Phil. thesis), University of Zimbabwe.
- 1999 Scutter, C., Characteristics and origins of subaqueous silicic hyaloclastites, Ponza, Italy, and southwestern Hokkaido, Japan (Ph.D. thesis), Monash University, Australia.

Invited Research Talks at Other Universities or Organizations:

- 2019 Recent work on the Barby Formation, Konkiep terrane: Eruptive mechanisms, lithofacies patterns and subvolcanic magma plumbing systems in a 1.2 Ga extensional continental margin arc on the edge of the Kalahari craton, SW Namibia: Geological Society of Namibia, Windhoek.
- 2018 Large-scale Cambrian bimodal igneous province in southern Oklahoma: Intraplate magmatism related to opening of the southern Iapetus Ocean: Department of Earth Sciences, Southern Methodist University, Dallas.
- 2017 Neoproterozoic tectonic evolution of southern Africa and assembly of the Gondwana supercontinent: Kimbell School of Geoscience, Midwestern State University, Wichita Falls.
- 2017 Neoproterozoic tectonic evolution of southern Africa and assembly of the Gondwana supercontinent: Geological Society of Namibia, Windhoek.
- 2015 Large-scale Cambrian bimodal igneous province in southern Oklahoma: intraplate magmatism related to opening of the southern Iapetus Ocean: Department of Earth and Environmental Sciences, University of Texas at Arlington.
- 2015 Neoproterozoic tectonic evolution of southern Africa and assembly of the Gondwana supercontinent: School of Geology and Geophysics, University of Oklahoma, Norman.
- 2013 Neoproterozoic tectonic evolution of southern Africa and the assembly of Gondwana: Department of Geological Sciences, University of Texas, Austin.
- 2012 Neoproterozoic tectonic evolution of southern Africa and the assembly of Gondwana: Department of Geosciences, University of Texas, Dallas.
- 2011 Neoproterozoic tectonic evolution of southern Africa and the assembly of Gondwana: Department of Geology and Environmental Science, University of Texas, Arlington.

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- 2011 Neoproterozoic tectonic evolution of southern Africa and the assembly of Gondwana: School of Geology, Oklahoma State University.
- 2010 Neoproterozoic tectonic evolution of southern Africa and the assembly of Gondwana: Department of Geology and Geophysics, Yale University.
- 2009 Umkondo igneous province in southern Africa: implications for Proterozoic supercontinent reconstructions and mantle dynamics: Department of Geology, University of Dar es Salaam, Tanzania.
- 2008 Neoproterozoic tectonic evolution of southern Africa and the assembly of Gondwana: Department of Earth Sciences, Southern Methodist University.
- 2005 Umkondo igneous province in southern Africa: implications for Proterozoic supercontinent reconstructions and mantle dynamics: Department of Geology and Environmental Science, University of Texas, Arlington.
- 2004 Pan-African orogenesis in southern Africa in relation to Neoproterozoic-Early Paleozoic supercontinent evolution: Department of Geology, University of Georgia.
- 2002 1.1 Ga large igneous province in southern Africa: implications for Mesoproterozoic supercontinent configurations and mantle dynamics: Department of Geology, Texas Tech University.
- 2001 1.1 Ga large igneous province in southern Africa: implications for Mesoproterozoic supercontinent configurations and mantle dynamics: Institute for Geophysics, University of Texas, Austin.
- 1999 1.1 Ga large igneous province in southern Africa/East Antarctica: implications for Mesoproterozoic supercontinent configurations and mantle dynamics: Department of Geosciences, University of Texas at Dallas.
- 1998 Pan-African (Neoproterozoic-early Paleozoic) tectonic evolution of southern Africa: Colorado School of Mines.
- 1998 Geology of the Central African Copperbelt: Colorado School of Mines.
- 1997 Pan-African orogenesis in the Zambezi belt: Programs in Geosciences, University of Texas at Dallas.
- 1996 Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern Andes: Botswana Geoscientists Association.
- 1996 Rift-related Jurassic explosive basaltic volcanism in the Transantarctic Mountains: Botswana Geoscientists Association.
- 1996 Geological evolution of the Neoproterozoic Zambezi belt, Zambia: implications for regional Pan-African tectonics in southern Africa: Geological Society of Zimbabwe.
- 1996 Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern Andes: Geology Department, University of Zimbabwe.
- 1996 Rift-related Jurassic explosive basaltic volcanism in the Transantarctic Mountains: Geology Department, University of Zimbabwe.
- 1996 Geological evolution of the Neoproterozoic Zambezi belt, Zambia: implications for regional Pan-African tectonics in southern Africa: Geological Society of Zambia.

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- 1995 Geological evolution of the Neoproterozoic Zambezi belt, Zambia: implications for regional Pan-African tectonics in southern Africa: Department of Geology, University of Botswana.
- 1994 Intracontinental setting of the Zambezi orogenic belt in relation to the Pan-African tectonic framework of southern Africa: Department of Geological Sciences, University of Texas at Arlington.
- 1994 Geological evolution of the Pan-African Zambezi belt, south-central Africa, in relation to Neoproterozoic tectonics: Department of Geological Sciences, Southern Methodist University.
- 1992 Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern South America: Department of Geology and Geophysics, Rice University.
- 1991 Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern Andes: Department of Geology, Texas Tech University.
- 1990 Tectonic evolution of the Late Proterozoic Zambezi belt, south-central Africa: Programs in Geosciences, University of Texas at Dallas.
- 1989 Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern Andes, Chile and Argentina: Department of Geological Sciences, Southern Methodist University.
- 1989 Late Proterozoic tectonic evolution of the Zambezi belt in Zambia: Geological Society of Zambia.
- 1989 Tectonic significance of geochronological results from central and southern Zambia: School of Mines, University of Zambia.
- 1989 Tectonics of the Pan-African Zambezi belt, south-central Africa: Department of Geology, Baylor University.
- 1988 Submarine rhyolitic volcanism in a Jurassic proto-marginal basin, southern Andes: Department of Geology, University of Texas at Arlington.
- 1987 Facies associations of a Jurassic submarine volcano-tectonic rift zone, southern Andes, Chile and Argentina: Department of Geological Sciences, Ohio State University.
- 1986 Tectonics of the Pan-African (Late Proterozoic) Zambezi belt, south-central Africa: Institute for Geophysics, University of Texas at Austin.
- 1986 Tectonic implications of new geochronological data from the Proterozoic of Zambia: Department of Geological Sciences, Ohio State University.
- 1986 Middle and Late Proterozoic tectonic evolution of Zambia: Department of Geological Sciences, Ohio University.
- 1985 Volcanism and sedimentation in a Late Devonian submarine island-arc setting, northern Sierra Nevada, California: Department of Geological Sciences, Ohio State University.
- 1984 Volcanism and sedimentation in a Late Devonian submarine island-arc setting, northern Sierra Nevada, California: Geological Society of Zambia.
- 1982 Volcanism and sedimentation in a Late Devonian submarine island-arc setting, northern Sierra Nevada, California: Department of Geological and Geophysical Sciences, Princeton University.

Honors and Awards:

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- 2002 Dean's Research and Creativity Award (Texas Christian University).
- 1999 Named a Fellow of the Geological Society of America.
- 1999, 1998 Coauthor of papers which received the A.E. Phaup Award of the Geological Society of Zimbabwe for the best paper of the year on Zimbabwe geology.
- 1995 Fulbright Research Scholarship (Botswana and Zimbabwe).

Professional Service:

- 2019 Convener (with two others) of topical session entitled Rhyolite/Granite Magmatism: Geological Society of America, Joint South-Central, North-Central, Rocky Mountain Section Meeting.
- 2017 Convener (with two others) of topical session entitled Advances in Understanding Precambrian to Cenozoic Magmatic and Metamorphic Processes and Their Bearing on Lithospheric Evolution of Southern Laurentia: Geological Society of America, South-Central Section Annual Meeting.
- 2015 Convener (with two others) of topical session entitled Recent Advances on the Geological Evolution of the Southern Oklahoma Aulacogen: Geological Society of America, South-Central Section Annual Meeting.
- 2002 Convener (with Samuel Bowring) of topical session entitled New Constraints on Mesoproterozoic - Early Neoproterozoic Supercontinent Assembly and Dispersal: Geological Society of America Annual Meeting.
- 2001-present Editorial Advisory Board, *Journal of African Earth Sciences*.
- 1999 Convener (with Chris Powell) of topical session entitled Role of Supercontinents in Earth History: Assembly and Dispersal of the Rodinian Supercontinent (1300-750? Ma), and Impacts on Evolution of the Proterozoic Biosphere, Hydrosphere, and Crust-mantle System: Geological Society of America Annual Meeting.
- 1997-1999 National Representative for USA for International Geological Correlation Program (UNESCO/IUGS) Project No. 418: Kibaran Events (1.35-1.0 Ga) in Southwestern Africa.
- 1993 Technical Program Co-Chairman, Geological Society of America, South-Central Section Annual Meeting.
- 1993 Convener (with Kent Nielsen) of symposium entitled Precambrian Connections across Southern North America: Geological Society of America, South-Central Section Annual Meeting.
- 1992-1995 Member, Steering Committee, International Geological Correlation Program (UNESCO/IUGS) Project No. 302: The Structure and Metallogenesis of Central African Late Proterozoic Belts.
- 1992-1995 National Correspondent for USA for International Geological Correlation Program Project No. 302.

Departmental and College Service at TCU:

2018-	College Faculty Advisory Committee (3-year appointment).
2018	Chair, Faculty Advisory Committee, Department of Environmental Science (for tenure and promotion).
2016	Dean's ad hoc committee to evaluate NSF PIRE proposals prepared by SGEE faculty.
2014-2015	College committee to choose nominee for Dean's research award.
2012-2015	Research and Travel Funds Committee, School of Geology, Energy and the Environment.
2011	Faculty Search Committee, School of Geology, Energy and the Environment.
2010-present	Undergraduate Advisor, Geology Program, School of Geology, Energy and the Environment.
2004-2010	Chairman, Department of Geology.
2001-2003	College of Science and Engineering Advisory Committee.
1997-1999	Chairman, Department of Geology Faculty Advisory Committee.
1993	Department of Geology Curriculum Review Committee.
1990-1999	Department of Geology Faculty Advisory Committee.
1988-present	Library liaison, Department of Geology/School of Geology, Energy and the Environment.
1997	Dean's Committee for TA award nominations.
1991-2007	Graduate Advisor, Geology Department.
1988-2010	Environmental Science Faculty.