

Matthew T. Heizler

**Professional Preparation:**

University of Minnesota-Duluth, BS in Geology, 1982

University of Maine, MS (Daniel Lux advisor) in Geochemistry, 1985

University of California-Los Angeles, Ph.D. (T. Mark Harrison advisor) in Geochemistry, 1993

**Appointments**

2017- Associate Director of Laboratories, NM Bureau of Geology  
2012-2014 Deputy Director NM Bureau of Geology  
2003-Present Senior <sup>40</sup>Ar/<sup>39</sup>Ar Geochronologist, New Mexico Bureau of Geology  
1999-2002 Assistant Director of Laboratories, NM Bureau of Geology  
1994-Present Adjunct professor, Dept. of Earth and Environmental Sciences, NMT  
1993-2003 <sup>40</sup>Ar/<sup>39</sup>Ar Geochronologist, New Mexico Bureau of Geology  
1989-1993 Spectroscopist-<sup>40</sup>Ar/<sup>39</sup>Ar Laboratory Manager (UCLA)  
1984-1989 Project Associate <sup>40</sup>Ar/<sup>39</sup>Ar Laboratory Manager (SUNY-Albany)

List of Publications  
Current to May 25, 2021

In review/revision

Crow, R., Schwing, J., Karlstrom, K., Heizler, M., Pearthree, P.A, House, P.K., Dulin, S., Janecke, S., Stelten, M., and Crossey, L., (in review), Comment to Dorsey et al: Redefining the Age of the Colorado River, *Geology*.

Gootee, B.F., Pearthree, P.A., Cook, J.P., Youberg, A., Douglass, J.C., Heizler, M.T., (in review) Development and integration of the middle Gila River in the Safford Basin, southeastern Arizona, *Geomorphology*.

Hillenbrand, I., Williams, M.L., Jercinovic, M.J., Heizler, M.T., Tjapkes, D.J., (in review) Paleozoic Tectonic Evolution and P-T-t paths in southern New England, *Geol. Soc. America Memoir*.

Holland, M. and Heizler, M., (in revision), Maximizing the Thermochronological Potential of Muscovite: Recovering Argon Diffusion Coefficients via *in vacuo* Heating, *Frontiers in Earth Science*.

Hollingworth, R.S., Leary, R.J., Heizler, M.T., (in revision), Detrital U-Pb zircon and <sup>40</sup>Ar/<sup>39</sup>Ar muscovite geochronology from Middle Pennsylvanian strata in the Anadarko basin, Texas Panhandle, USA, *Paleogeography, Paleoclimatology, Paleoecology*.

Levy, D.A., Heizler, M.T., Zuza, A.V., Henry, C.D., DesOrmeu, J.W., (in review), Extensional collapse of the Nevadaplano: Miocene detachment faulting in the Toano and Pilot ranges, eastern Basin and Range, Nevada and Utah, *Geol. Soc. America Memoir*.

Sagar, M.W., Seward, D., Palin, M.J., Heizler, M.T., Heath, L.A. (in revision) A record of Zealandia evolution from the mid-Cretaceous eastern Gondwana margin to the Neogene plate boundary Alpine Fault “Big Bend”: Thermochronology of the Glenroy Complex and Mt Cann Pluton, New Zealand, *Tectonics*.

Thurston, O.G., Guenther, W.R., Karlstrom, K.E., Ricketts, J.W., Heizler, M.T., Timmons, J.M., (in review), ZHe thermochronology of Grand Canyon resolves 1250 Ma unroofing at the Great Unconformity and <20 Ma canyon carving, *Geology*.

In press

Anderson, J.C., Karlstrom, K.E., Heizler, M.T., (in press), Neogene Drainage Reversal And Colorado Plateau Uplift In The Salt River Area, Arizona, USA, *Geomorphology*.

Cather, S.M., Heizler, M.T., McIntosh, W.C., (in press), Middle Eocene to Pliocene Volcanic, Volcaniclastic, and Intrusive Rocks of the Quebradas Region, In: *Geology of the Quebradas Region*,

Socorro County, New Mexico, Steven M. Cather and Daniel J. Koning, eds., New Mexico Bureau of Geology Memoir.

- Henry, C.D., John, D.A., Heizler, M.T., Leonardson, R.W., Colgan, J.P., Watts, K.A., (in press), Jurassic, Cretaceous, Eocene, and Miocene Magmatism and Hydrothermal Systems, Cortez Region of the Battle Mountain – Eureka Trend, Nevada, USA: Implications for Origin of World Class Carlin-Type Gold Deposits, *Economic Geology*.
- Ricketts, J.W., Roiz, J., Karlstrom, K.E., Guenther, W.R., Heizler, M.T., Timmons, J.M., (in press) Tectonic origin of the Great Unconformities of the Rocky Mountain region: the power of combined K-feldspar  $^{40}\text{Ar}/^{39}\text{Ar}$  and zircon (U/Th)-He thermochronology, *Geology*.
- Robertson, J., Karlstrom, K.E., Heizler, M.T., and Crossey, L.J., (in press), Realignment of the Colorado River by ~ 2 million years of rotational bedrock landsliding: The Surprise Valley Landslide Complex, Grand Canyon, Arizona, *Geosphere*.
- Zuza, A.V., Henry, C.D., Dee, S., Thorman, C.H., Heizler, M.T., (in press), Records of pulsed intracontinental plateau growth and subsequent collapse in the North American Cordilleran hinterland: Jurassic-Cenozoic tectonics of the Pequop Mountains, NE Nevada, *Geosphere*.

## 2021

220. Brand, U., Davis, A.M., Shaver, K.K., Blamey, N.J.F., Heizler, M., Lécuyer, C., Large, R., 2021, Atmospheric oxygen of the Paleozoic, *Earth Science Reviews*, 216, 103560, <https://doi.org/10.1016/j.earscirev.2021.103560>
219. Crow, R., Schwing, J., Karlstrom, K., Heizler, M., Pearthree, P.A, House, P.K., Dulin, S., Janecke, S., Stelten, M., and Crossey, L., 2021, Redefining the Age of the Colorado River, *Geology*, v. 49, p. <https://doi.org/10.1130/G48080.1>
218. Heizler, M.T., Karlstrom, K.E., Albonico, M., Hereford, R., Beard, S., Cather, S., Crosey, L., and Sundell, K., 2021, Detrital sanidine  $^{40}\text{Ar}/^{39}\text{Ar}$  dating confirms < 2 Ma age of Crooked Ridge paleoriver and deep denudation of the southwestern Colorado Plateau, *Geosphere*, v. 17, p. 1–17, <https://doi.org/10.1130/GES02319.1>.
217. Walker, J.T., Aslan, A., Cole, R.D., Heizler, M.T., 2021, New Age Constraints on the Late Cretaceous Lower Williams Fork Formation, Coal Canyon, Colorado, *Mountain Geologist*, v. 58, No. 1, p. 5-26. DOI: 10.31582/rmag.mg.58.1.5

## 2020

216. Flynn, A.G., Davis, A.J., Williamson, T.E., Heizler, M.T., Fenley I.C.W., Leslie, C.E., Secord, R., Brusatte, S.L., Peppe, D.J., 2020, Early Paleocene Magnetostratigraphy and Revised Biostratigraphy of the Ojo Alamo Sandstone and Lower Nacimiento Formation, San Juan Basin, New Mexico, USA, *Geol. Soc. Am. Bull.*, <https://doi.org/10.1130/B35481.1>
215. Henry, C.D., John, D.A., Heizler, M.T., Leonardson, R.W., Colgan, J.P., Watts, K.E., Ressel, M.W., Cousens, B.L., 2020, Why Did Great Basin Eocene Magmatism Generate Carlin-type Gold Deposits When Extensive Jurassic to Middle Miocene Magmatism Did Not? Lessons from the Cortez Region, Northern Nevada, USA, *Geological Society of Nevada Symposium Proceedings*, Reno/Sparks, May 2020.
214. Koning, D.J., Heizler, M., Jochems, A., 2020, Clues from the Santa Fe Group for Oligocene-Miocene paleogeography of the southeastern Colorado Plateau near Grants, N.M., in: *The Geology of the Mount Taylor Area, New Mexico Geological Society Special Publication 14*, eds., Bonnie A Frey, Shari E. Kelley, Kate E. Zeigler, Virginia T. McLemore, Fraser Goff, and Dana S. Ulmer-Scholle, p. 153-166.

213. McLemore, V.T., Smith, A., Riggins, A.M., Dunbar, N., Rämö, T.O. Heizler, M.T., 2020, Reebearing Cambrian-Ordovician Episyenites and Carbonatites In Southern and Central New Mexico, USA, Geological Society of Nevada Symposium Proceedings, Reno/Sparks, May 2020.
212. Schaen, A.J., Jicha, B.R., Hodges, K.V., Vermeesch, P., Stelten, M.E., Mercer, C.M., Phillips, D., Rivera, T.A., Jourdan, F., Matchan, E.L., Hemming, S.R., Morgan L.E., Kelley, S.P., Cassata, W.S., Heizler, M.T., Vasconcelos, P.M., Koppers, A.A.P., Mark, D.F., Niespolo, E.M., Sprain, C.J., Benowitz, J.A., Hames, W.E., Kuiper, K.F., Turrin, B.D., Renne, P.R., Ross, J., Nomade, S., Guillou, H., Laura E. Webb, L.E., Cohen, B.A., Calvert, A.T., Joyce, N., Morgan Ganderød, M., Wijbrans, J., Ishizuka, O., He, H., Ramirez, A., Pfänder, J.A., Lopez-Martínez, M., Huaning Qiu, H., Brad S. Singer, B.S., 2020, On the reporting and interpretation of  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronologic data, *Geol. Soc. Am. Bull.*, 133 (3-4), DOI:[10.1130/B35560.1](https://doi.org/10.1130/B35560.1)
211. Sheldrick, T.C., Hahn, G., Ducea M.N., Stoicaj, A.M., Constenius, K., Heizler, M., 2020, Peridotite versus pyroxenite input in Mongolian Mesozoic-Cenozoic lavas, and dykes, *Lithos*, <https://doi.org/10.1016/j.lithos.2020.105747>
210. Vaci, Z., Agee, C.B., Humayun, M., Ziegler, K., Asmeron, Y., Polyak, V., Busemann, H., Krietsch, D., Heizler, M., Sanborn, M., Yin, Q., 2020. Unique Achondrite Northwest Africa 11042: Exploring the Melting and Breakup of the L Chondrite Parent Body, *Meteoritics and Planetary Science*, 1-27, <https://doi.org/10.1111/maps.12456>.
209. Zuza, A.V., Henry, C.D., Levy, D.A., Thorman, C.H., Heizler, M.T., 2020, Probing The Core Of The Cordilleran Hinterland Via Integrated Field Studies, NE Nevada: Records Of Pulsed Mesozoic Contraction And Cenozoic Extension, Geological Society of Nevada Symposium Proceedings, Reno/Sparks, May 2020.

## 2019

208. Aslan, A., Karlstrom, K.E., Kirby, E., Heizler, M.T., Granger, D.E., Feathers, J.K., Hanson, P.R., Mahan, S.A., 2019, Resolving time-space histories of Late Cenozoic bedrock incision along the Upper Colorado River, USA, *Geomorphology*, <https://doi.org/10.1016/j.geomorph.2019.106855>.
207. Cather, S.M., Heizler, M.T., Williamson, T.E., 2019, Laramide fluvial evolution of the San Juan Basin, New Mexico and Colorado: Paleocurrent and detrital-sanidine age constraints from the Paleocene Nacimiento and Animas formations, *Geosphere*, 15 (5): 1641-1664.
206. Long, S.P., Heizler, M.T., Thomson, S.N, Peter W. Reiners, P.W., Fryxell, J.E., 2019, Rapid Oligocene To Early Miocene Extension Along The Grant Range Brittle Detachment System, Nevada, U.S.A.: Insights From Multi-Part Cooling Histories Of Footwall Rocks, *Tectonics*, 37, <https://doi.org/10.1029/2018/TC005073>.
205. Sizemore, T., Cemen, I., Wielicki, M., Stockli, D., Heizler, M., Robinson, D., 2019, New (U-Th)/He and Ar/Ar Thermochronology Revealing the Unroofing History Of Basement Rocks In A Highly Extended Terrane: Central Death Valley, CA, *Lithosphere*, 11 (4), 436-447, [doi.org/10.1130/L1044.1](https://doi.org/10.1130/L1044.1)
204. Walk, C., Karlstrom, K., Crow, R., Heizler, M., 2019, Birth and Evolution of the Virgin River Fluvial System: ~1 km of post-5 Ma Uplift of the Western Colorado Plateau, *Geosphere*, 15 (3): 759-782.
203. Wu, L., Stuart, F.M., Heizler, M.T., 2019, (U+Th)/He ages of hematite with simple thermal history: revisiting Elba, *Chemical Geology*, 504, 151-157. <https://doi.org/10.1016/j.chemgeo.2018.11.005>.

## 2018

202. Gottardi, R., Schaperm M.C., Barnes, J.D., Heizler, M.T., 2018, Fluid-rock interaction and Strain Localization in the Picacho Mountains Detachment Shear Zone, Arizona, USA, *Tectonics*, 37, 3244-3260. <https://doi.org/10.1029/2017TC004835>.

201. Koning, D.J., Jochems, A.P., Heizler, M.T., 2018, Stratigraphic and Geochronologic Constraints for Two Rio Grande Paleovalley Incision-Backfilling Events Between 5.1 And 4.5 Ma, in: Las Cruces Country III, Greg Mack, Jim Witcher, Frank Ramos, Brian Hampton, and Dana Ulmer-Scholle, New Mexico Geological Society 69<sup>th</sup> Annual Fall Field Conference Guidebook, 93-108.
200. Leslie, C., Peppe, D.J., Williamson, T.E., Heizler, M.T., Bilardello, D., Secord, R., Leggett, T., 2018, High Resolution Magnetostratigraphy Of The Upper Nacimiento Formation, San Juan Basin, New Mexico, USA: Implications For Basin Evolution And Mammalian Turnover: American Journal of Science, v. 318, 318-334, DOI 10.2475/03.2018.02
199. Leslie, C.E., Peppe, D. J., Williamson, T. E., Heizler, M.T., Jackson, M., Atchley, S. C., Nordt, L., Standhardt, B., 2018, Revised Age Constraints For Late Cretaceous To Early Paleocene Strata From The Dawson Creek Section, Big Bend National Park, West Texas, Geological Society of America Bulletin, 130(7-8), 1143-1163. <https://doi.org/10.1130/B31785.1>.
198. McLemore, V.T., Smith, A., Riggins, A.M., Dunbar, N., Frempong, K.B., Heizler, M.T., 2018, Formation of Episyenites in the Southern Caballo Mountains, Sierra County, New Mexico, in: Las Cruces Country III, Greg Mack, Jim Witcher, Frank Ramos, Brian Hampton, and Dana Ulmer-Scholle, New Mexico Geological Society 69<sup>th</sup> Annual Fall Field Conference Guidebook, 207-216.
197. Petronis, M., Valenta, J., Rapprich, V., Lindline, J., Heizler, M., van Wyk de Vries, B., Shields, S., Balek, J., Fojtíková, L., Tábořík, P., 2018, Emplacement History of the Miocene Zebín Tuff Cone (Czech Republic) Revealed From Ground Geophysics, Anisotropy of Magnetic Susceptibility, Paleomagnetic, and <sup>40</sup>Ar/<sup>39</sup>Ar Geochronology Data, Geochemistry, Geophysics, Geosystems, 19, 3764–3792. <https://doi.org/10.1029/2017GC007324>
196. Ramos, F.C. and Heizler, M.T., 2018, Age Relationships of Volcanic Rocks in the Dona Ana Mountains, in: Las Cruces Country III, Greg Mack, Jim Witcher, Frank Ramos, Brian Hampton, and Dana Ulmer-Scholle, New Mexico Geological Society 69<sup>th</sup> Annual Fall Field Conference Guidebook, 159-164.
195. Ramos, F.C., Heizler, M.T., Hampton, 2018, <sup>40</sup>Ar/<sup>39</sup>Ar Ages of Palm Park Volcanic Rocks, South-central New Mexico, in: Las Cruces Country III, Greg Mack, Jim Witcher, Frank Ramos, Brian Hampton, and Dana Ulmer-Scholle, New Mexico Geological Society 69<sup>th</sup> Annual Fall Field Conference Guidebook, 165-172.
194. Rinne, M.L., Cooke, M.L., Harris, A.C., Finn, D., Allen, C., Heizler, M.T., Creaser, R., 2018, Geology and Geochronology of the Golpu Porphyry and Wafi Epithermal Deposit, Morobe Province, Papua New Guinea, Economic Geology, v.113, 271-294. <https://doi.org/10.5382/econgeo.2018.4551>.
193. Sowards, K., Nelson, S., McBride, J., Bickmore, B., Heizler, M.T., David Tingey, D., Rey, K., Yaede, J., 2018, A Conceptual Model for the Rapid Weathering of Tropical Ocean Islands: A Synthesis of Geochemistry and Geophysics, Kohala Peninsula, Hawaii, USA, Geosphere, 14 (3): 1324-1342, [doi.org/10.1130/GESO1642.1](https://doi.org/10.1130/GESO1642.1).
192. Yancey, T., Heizler, M., Miller, B., Guillemette, R., 2018, Eocene-Oligocene Chronostratigraphy of Ignimbrite Flareup Volcanic Ash Beds on the Gulf of Mexico Coastal Plains: Geosphere, 14(3): 1232-1252, <https://doi.org/10.1130/GES01621.1>.

191. Abby, A., Niemi, N.A., Geissman, J.W., Winkelstern, I.Z., Heizer, M.T., 2017, Early Cenozoic exhumation and paleotopography in the Arkansas River valley: southern Rocky Mountains, Colorado, *Lithosphere*, v. 10, 239-266, doi.org/10.1120/L673.1
190. Aslan, A., Boraas-Connors, M., Sprinkel, D., Becker, T.P., Lynds, R., Karlstrom, K.E., Heizler, M., 2017, Cenozoic collapse of the eastern Uinta Mountains and drainage evolution of the Uinta Mountains region: *Geosphere*, v. 13, no. 6, p. 1–26, doi:10.1130/GES01523.1.
189. Blamey, N.J., Campbell, A.R., Heizler, M.T., 2017, The hydrothermal fluid evolution of vein sets at the Pipeline Gold Mine, Nevada, *Minerals*, 7, 100, doi:10.3390/min7060100.
188. Cole, R., Stork, A., Hood, W., Heizler, M., 2017, Geochemical and geochronological characterization of Grand Mesa Volcanic Field, western Colorado, in: *The Geology of the Ouray-Silverton Area*, Karlstrom, Karl E.; Gonzales, David A.; Zimmerer, Matthew J.; Heizler, Matthew; Ulmer-Scholle, Dana S., New Mexico Geological Society 68<sup>th</sup> Annual Fall Field Conference Guidebook, 103-113.
187. Dehler, C., Gehrels, G., Porter, S., Heizler, M., Karlstrom, K. Cox, G., Crossey, L., Timmons, M., 2017, Synthesis Of The 780-740 Chuar, Unita Mountain, And Pahrump (Chump) Groups, Western USA: Implications For Laurentia-Wide Cratonic Marine Basins, *Geol. Soc. Am. Bull*, doi:10.1130/B31532.1.
186. Fassett, J.E., and Heizler, M.T., 2017, An improved new age for the C33n-C32r paleomagnetic reversal, San Juan Basin, NW New Mexico and SW Colorado, in: *The Geology of the Ouray-Silverton Area*, Karlstrom, Karl E.; Gonzales, David A.; Zimmerer, Matthew J.; Heizler, Matthew; Ulmer-Scholle, Dana S., New Mexico Geological Society 68<sup>th</sup> Annual Fall Field Conference Guidebook, 115-121.
185. Gonzales, D.A., Karlstrom, K.E., Crossey, L., Heizler, M., Lucas, S.G., 2017, Day 1 Hiking log: Ouray Perimeter Trail, in: *The Geology of the Ouray-Silverton Area*, Karlstrom, Karl E.; Gonzales, David A.; Zimmerer, Matthew J.; Heizler, Matthew; Ulmer-Scholle, Dana S., New Mexico Geological Society 68<sup>th</sup> Annual Fall Field Conference Guidebook, 11-23.
184. Henry, C.D., Castor, S.B., Starkel, W.A., Ellis, B.S., Wolff, J.A., Laravie, J.A., McIntosh, W.C., Heizler, M.T., 2017, Geology and evolution of the McDermitt caldera, northern Nevada and southeastern Oregon, USA, *Geosphere*, v. 13, no. 4, 1066-1112.
183. Hrcir, J., Holt, B., Gonzales, D.A., Aslan, A., Karlstrom, K.E., Crossey, L., Heizler, M., 2017, Day 3A Road log: From Ouray to Rico hot springs of the San Juan Region, in: *The Geology of the Ouray-Silverton Area*, Karlstrom, Karl E.; Gonzales, David A.; Zimmerer, Matthew J.; Heizler, Matthew; Ulmer-Scholle, Dana S., New Mexico Geological Society 68<sup>th</sup> Annual Fall Field Conference Guidebook, 47-59.
182. Karlstrom, K.E., Crossey, L.J., Embid, E., Crow, R., Heizler, M., Hereford, R., Beard, L.S., Ricketts, J.W., Cather, S., Kelley, S., 2017, Cenozoic Incision History Of The Little Colorado River: Its Role In Carving Grand Canyon And Onset Of Rapid Incision In The Last ~2 Ma In The Colorado River System: *Geosphere CRevolution* volume, v. 13, no. 1, 49-81, doi:10.1130/GES01304.1.
181. Karlstrom, K.E., Gonzales, D.A., Heizler, M., and Zinnser, A., 2017, <sup>40</sup>Ar/<sup>39</sup>Ar age constraints on the deposition and metamorphism of the Uncompahgre Group, southwestern, Colorado, in: *The Geology of the Ouray-Silverton Area*, Karlstrom, Karl E.; Gonzales, David A.; Zimmerer, Matthew J.; Heizler, Matthew; Ulmer-Scholle, Dana S., New Mexico Geological Society 68<sup>th</sup> Annual Fall Field Conference Guidebook, 80-93.
180. Karlstrom, K.E., Gonzales, D.A., Zimmerer, M.J. Heizler, M., Ulmer-Scholle, D.S., 2017, *The Geology of the Ouray-Silverton Area*, New Mexico Geological Society Guidebook 68, 219 p.
179. Malekpour-Alamdari, A., Axen, G., Heizler, M., Hassanzadeh, J., 2017, Large magnitude continental extension in NE Iranian plateau: insight from K-feldspar <sup>40</sup>Ar/<sup>39</sup>Ar thermochronology from the Shotor Kuh - Biarjmand metamorphic core complex, *Geosphere*, v. 13, no. 4, 1207-1233.

178. Mulder, J.A., Karlstrom, K.E., Fletcher, K., Heizler, M.T., Timmons, J.M., Crossey, L.J., Gehrels, G.E., Pecha, M., 2017, The syn-orogenic sedimentary record of the Grenville Orogeny in southwest Laurentia, *Precambrian Research*, 294, 33-52.
177. Repasch, M., Karlstrom, K.E., Heizler, M.T., Pecha, M., 2017, Birth And Evolution Of The Rio Grande Fluvial System In The Past 8 Ma: Progressive Downward Integration and the Influence Of Tectonics, Volcanism, And Climate, *Earth Science Reviews*, v. 168, 113-164.

## 2016

176. Boehnke, P., Harrison, T., Heizler, M.T., Warren, P.H., 2016. A Model For Meteoritic And Lunar  $^{40}\text{Ar}/^{39}\text{Ar}$  Age Spectra: Addressing The Conundrum Of Multi-Activation Energies, *Earth Planetary Science Letters*, v. 453, 267-275.
175. Faulds, J.E., Schreiber, B. C., Langenheim, V.E., Hinz, N.H., Shaw, T.H., Heizler, M.T., Perkins, M.E., Tabakh, M. E., Kunk, M.J., 2016. Paleogeographic Implications Of Late Miocene Lacustrine And Nonmarine Evaporite Deposits In The Lake Mead Region: Immediate Precursors To The Colorado River Geosphere, June 2016, v. 12, p. 721-767, doi:10.1130/GES01143.1
174. Hereford, R, Beard, L.S., Dickinson, W.R., Karlstrom, K.E., Heizler, M.T., Crossey, L.J., Amoroso, L., House, P.K, Pecha, M., 2016. Reevaluation Of The Crooked Ridge River—Early Pleistocene (Ca. 2 Ma) Age And Origin Of The White Mesa Alluvium, Northeastern Arizona, *Geosphere*, v. 12, p. 768-789, doi:10.1130/GES01124.1
173. Holland, M. E., Karlstrom, K.E., Grambling T.A., and Heizler, M.T., 2016, Geochronology Of Proterozoic Rocks Of The Sandia-Manzano-Los Pinos Uplift: Implications For The Timing Of Crustal Assembly Of The Southwestern United States, *New Mexico Geological Society Guidebook 67, Geology of the Belen Area*, 161-168.
172. Karlstrom, K., Williams, M., Heizler, M, Holland, M., Grambling, T., Amato, J., 2016, U-Pb Monazite And Ar-Ar Data Supporting Polyphase Plutonism, Deformation, And Metamorphism In The Manzano Mountains: Record Of Both The Mazatzal (1.66-1.60 Ga) And Picuris (1.45 Ga) Orogenies, *New Mexico Geological Society Guidebook 67, Geology of the Belen Area*, 177-184.
171. Love, D.W., Karlstrom K.E., Frey, B.A., Lucas, S.G., Williams, S., Miller, P., Holland, M., Williams, M.L., Heizler, M., and Grambling, T., 2016, Day 1 road log: The Rio Grande Rift, the southern Albuquerque Basin, *New Mexico Geological Society Guidebook 67, Geology of the Belen Area*, 63-82.
170. Ramos, F.C., Heizler, M.T., Buettner, J.E., Gill, J.B., Wei, H.Q., Dimond, C.A., Scott, S.R., 2016, U-Series And  $^{40}\text{Ar}/^{39}\text{Ar}$  Ages Of Holocene Volcanic Rocks At Changbaishan Volcano, China, *Geology*, v. 44, p. 511-514, doi:10.1130/G37837.1
169. Repasch, M., Karlstrom, K., Heizler, M., Koning, D., 2016, New insights on the late Pleistocene Rio Grande-Rio Chama fluvial system from detrital zircon dating, *New Mexico Geological Society Fall Field Conference, New Mexico Geological Society Guidebook 67, Geology of the Belen Area*, 479-489.
168. Ricketts, J.W., Karlstrom, K.E., Heizler M.T., 2016, Tectonic evolution of the Lucero Uplift, *New Mexico Geological Society Guidebook 67, Geology of the Belen Area*, 185-194.
167. Ricketts, J.W., Karlstrom, K.E., Heizler M.T., 2016, Processes controlling the development of the Rio Grande Rift at long timescales, *New Mexico Geological Society Guidebook 67, Geology of the Belen Area*, 195-202.

## 2015

166. Channer, M.A., Ricketts, J.W., Zimmerer, M., Heizler, M., Karlstrom, K.E., 2015, Surface Uplift Above The Jemez Mantle Anomaly In The Past 4 Ma Based On  $^{40}\text{Ar}/^{39}\text{Ar}$  Dated Paleoprofiles Of The Rio San Jose, New Mexico, USA: *Geosphere*, v. 11, p. 1384-1400, doi:10.1130/GES01145.1
165. Gébelin, A., C. Teyssier, M. T. Heizler, Mulch, A., 2015, Meteoric Water Circulation In A Rolling-Hinge Detachment System (Northern Snake Range Core Complex, Nevada. *Geological Society of*

America Bulletin 127(1-2): 149-161.

164. Gottardi, R., Teyssier, C., Mulch, A., Valley, J., Spicuzza, M., Vennemann, T., Quilichini, A., Heizler, M., 2015. Strain And Permeability Gradients Traced By Stable Isotope Exchange In The Raft River Detachment Shear Zone, Utah, *Journal of Structural Geology*, v. 71, 41-57.
163. Heintz, M. L., Yancey, T.E., Miller, B.V., Heizler, M.T., 2015, Tephrochronology And Geochemistry Of Eocene And Oligocene Volcanic Ashes Of East And Central Texas, *Geological Society of America Bulletin*; v. 127, no. 5/6, 770–780, doi: 10.1130/B31146.1.
162. McFadden, R.R., Mulch, A., Teyssier, C., Heizler, M., 2015, Eocene extension and meteoric fluid flow in the Wildhorse detachment, Pioneer metamorphic core complex, Idaho, *Lithosphere*, v. 7, 355-366.
161. Quilichini, A., Siebenaller, L., Nachlas, W.O., Teyssier, C., Vennemann, T.W., Heizler, M.T., Mulch, A., 2015, Infiltration Of Meteoric Fluids In An Extensional Detachment Shear Zone (Kettle Dome, WA, USA): How Quartz Dynamic Recrystallization Relates To Fluid-Rock Interaction, *Journal of Structural Geology*, v. 71, 71-85.

## 2014

160. Heizler, M.T., Dunbar, N.W., 2014, Analytical Laboratories at the New Mexico Bureau of Geology, *Earth Matters*, v. 14, no. 1, Winter.
159. Idleman, L., Cosca, M.A., Heizler, M.T., Thomson, S.N., Teyssier, C., Whitney, D.L, 2014, Tectonic burial and exhumation cycles tracked by muscovite and K-feldspar  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronology in a strike-slip fault zone, central Turkey. *Tectonophysics* 612: 134-146.
158. McLemore, V., Dunbar, N., Heizler, L., Heizler, M. 2014, Geology and Mineral Deposits of the Orogrande Mining District, Jarilla Mountains, Otero County, New Mexico Geological Society Fall Field Conference Guidebook v. 65, *Geology of the Sacramento Mountains Region*, 247-259.
157. Rosenburg, R., Kirby, E., Aslan, A., Karlstrom, K., Heizler, M., Ouimet, W., 2014, Late Miocene erosion and evolution of topography along the western slope of the Colorado Rockies, *Geosphere*, themed issue titled “Crevolution 2: Origin And Evolution Of The Colorado River System II” v. 10, p. 641-663.
156. Woodburne, M.O., Francisco, J., Raigemborn, M.S., Heizler, M.T., Javier N. Gelfo, J.N., Oliveira, E. V., 2014, Revised timing of the South American early Paleogene Land Mammal Ages, *Journal of South American Earth Sciences*, v. 54, 109-119.

## 2013

155. Hathway, B., Dolby, G., McNeil, D., Kamo, S., Heizler, M., Joyce, N., 2013, Revised stratigraphy, regional correlations and new bentonite radiometric ages for the Albian Loon River Formation, Fort St. John Group, northwestern Alberta. *Bulletin of Canadian Petroleum Geology* 61(4): 331-358.
154. Nereson, A., Stroud, J., Karlstrom, K.E., Heizler, M.T., McIntosh, W.C., 2013, Dynamic topography of the western Great Plains: Geomorphic and  $^{40}\text{Ar}/^{39}\text{Ar}$  evidence for mantle-driven uplift associated with the Jemez lineament of NE New Mexico and SE Colorado. *Geosphere* 9(3): 521-545.
153. Parsons, I., FitzGerald, J.D., Heizler, M.T., Heizler, L.L., Ivanic, T., Lee, M.R., 2013, Eight-phase alkali feldspars: low-temperature cryptoperthite, peristerite and multiple replacement reactions in the Klokken intrusion. *Contributions To Mineralogy and Petrology* 165(5): 931-960.
152. Sanchez, V., M. Murphy, A. Robinson, T. Lapen, M. Heizler, 2013, Tectonic evolution of the India–Asia suture zone since Middle Eocene time, Lopukangri area, South-Central Tibet. *Journal of Asian Earth Sciences* 62: 205-220.
151. Seaton, N. C., C. Teyssier, D. L. Whitney and M. T. Heizler, 2013, Quartz and calcite microfabric transitions in a pressure and temperature gradient, Sivrihisar, Turkey. *Geochem Cosmochim Acta* 26 (3-4): 191-206.

150. Yancey, T.E., Mustoe, G.E., Leopold, E.B., Heizler, M.T., 2013, Mudflow Disturbance In Latest Miocene Forests In Lewis County, Washington, *Palaios* 28, 343-358.

## 2012

149. Fleagle, J., Perkins, M., Heizler, M., Nash, B. 2012, Tephrochronology of the Miocene Santa Cruz and Pinturas Formations, Argentina, in *Early Miocene Paleobiology in Patagonia*, Cambridge Univ. Press, 23-40. <https://doi.org/10.1017/CB09780511667381.003>.
148. Gebelin, A., Mulch, A., Teyssier, C., Chamberlain, P., Heizler, M.T., 2012, Coupled basin-detachment systems as paleoaltimetry archives of the western North American Coriellera, *Earth and Planetary Sci. Lett.*, 335, 36-47.
147. Heizler, M. T. and Jicha, B., 2012, EARTHTIME and the quest for determining the age of Quaternary  $^{40}\text{Ar}/^{39}\text{Ar}$  standard AC-2, invited for special volume "Advances in  $^{40}\text{Ar}/^{39}\text{Ar}$  Geochronology", *Quaternary Geochronology*.
146. Hemming, S.R., Anonymous, Heizler, M.T., Jicha, B., Machlus, M., Rasbury, E.T., Renne, P.R., Singer, B.S., Swisher, C.C., Turrin, B.D., 2012. Inter-laboratory evaluation of  $^{40}\text{Ar}/^{39}\text{Ar}$  data for sanidines from the fire clay tonstein. *Mineralogical Magazine* 76, 1832.
145. Kapp, P., Carrapa, B., Reiners, P., Guynn, Jerome, Ding, Lin., Heizler, M., 2012, Thermochronologic evidence for plateau formation in central Tibet by 45 Ma, *Geology*, 40, 2, 187-190.
144. McLemore, V.T., Heizler, M.T., Love, D.W., Cikoski, C., Koning, D.J., 2012,  $^{40}\text{Ar}/^{39}\text{Ar}$  Ages of Selected Basalts in the Sierra Cuchillo and Mud Springs Mountains, Sierra and Socorro Counties, New Mexico, *New Mexico Geological Society Fall Field Conference Guidebook 63, Geology of the Warm Springs Region*, p. 285-292.
143. McLemore, V. T., Ramo, T.O., Heizler, M.T., Heinonen, A.P., 2012, Intermittent Proterozoic plutonic magmatism and Neoproterozoic cooling history in the Caballo Mountains, New Mexico, *New Mexico Geological Society Fall Field Conference Guidebook 63, Geology of the Warm Springs Region*, p. 235-247.
142. Rohrmann, A., Kapp, P., Carrapa, B., Reiners, P.W., Guynn, J., Ding, L., Heizler, M., 2012. Thermochronologic evidence for plateau formation in central Tibet by 45 Ma. *Geology* 40, 187-190.
141. Timmons, J. M., Bloch, J., Fletcher, K., Karlstrom, K.E., Heizler, M.T., Crossey, L. J., 2012, The Grand Canyon Unkar Group: Mesoproterozoic Basin Formation in the Continental Interior during Supercontinent Assembly, in: *Grand Canyon Geology Two Billion Years of Earth's History*, ed. J. M. Timmons and K.E. Karlstrom, GSA Special Paper 489, p. 25-48.

## 2011

140. Amato, J. M., Heizler, M. T., Boullion, A. O., Sanders, A. E., McLemore, V. T., Toro, J., Andronicos, C. L., 2011, Mesoproterozoic (1.46 Ga) magmatism and exhumation during crustal extension in the Mazatzal Province: The Burro Mountains gneiss dome, southern New Mexico, *Geological Society of America Bulletin*, doi: 10.1130/B30337.1.
139. Gebelin, A., Mulch, A., Teyssier, C., Heizler, M., Vennemann, T., Seaton, N., 2011, Oligo-Miocene extensional tectonics and fluid flow across the Northern Snake Range detachment system, Nevada, *Tectonics*, 30, di 10.1029/2010TC002797.
138. Karlstrom, K.E., D. Coblenz, K. Dueker, W. Ouimet, E. Kirby, J. Van Wijk, B. Schmandt, S. Kelley, G. Lazear, L.J. Crossey, R. Crow, A. Aslan, A. Darling, R. Aster, J. MacCarthy, S.M. Hansen, J. Stachnik, D.F. Stockli, R.V. Garcia, M. Hoffman, R. McKeon, J. Feldman, M. Heizler, M.S. Donahue, and the CREST Working Group, 2011, Mantle-driven dynamic uplift of the Rocky Mountains and Colorado Plateau and its surface response: Toward a unified hypothesis, *Lithosphere*, 4, 3-22.



137. Mosolf, J. G., Horton, B. K., Heizler, M. T., Matos, R., 2011, Unroofing the core of the central Andean fold-thrust belt during focused late Miocene exhumation: evidence from the Tipuani-Mapiriwedge-top basin, Bolivia, *Basin Research*, 23, 346- 360.
136. Zaim, Y., Ciochon, R. L. Polanski, J., Grine, F., Bettis, A., Rizal, Y., Franciscus, R., Larick, R., Heizler, M., Eaves, K. L., Marsh, H., 2011, New 1.5 million-year-old *Homo erectus* maxilla from Sangiran (Central Java, Indonesia), *J. of Human Evolution*, 61, 363-376.
135. Zhang, R., Murphy, M. A., Lapen, T. J., Sanchez, V., Heizler, M., 2011, Late Eocene crustal thickening followed by Early-Late Oligocene extension along the India-Asia suture zone: Evidence for cyclicity in the Himalayan orogeny, *Geosphere*, 7, 1249-1268.

## 2010

134. Batt, G.E., Harper, G.D., Heizler, M., Roden-Tice, M., 2010. Cretaceous Sedimentary Blanketing and Tectonic Rejuvenation in the Western Klamath Mountains: Insights from Thermochronology. *Central European Journal of Geosciences* 2, 138-151.
133. Fassett, J. E., Heizler, M.T., McIntosh, W.C., 2010. Geologic implications of a  $^{40}\text{Ar}/^{39}\text{Ar}$  single crystal sanidine age for an altered volcanic ash bed in the Paleocene Nacimiento Formation in the Southern San Juan Basin, New Mexico Geological Society Guidebook, 61<sup>st</sup> field conference, Four Corners Country, 121-130.
132. Guillermo, H., Bellosi, E. S., Heizler, M. T., Vilas, J. F., Madden, R. H., Carlini, A. A., Kay, R. F., Vucetich, M., G., 2010, A Geochronology for the Sarmiento Formation at Gran Barranca, in *The Paleontology of Gran Barranca: Evolution of Environmental Change through the Middle Cenozoic of Patagonia*, eds., R. H. Madden, A. A. Carlini, M. G., Vucetich, and R. F. Kay. Published by Cambridge Univ. Press, Chapter 4, 46-59.
131. Harrison, T. M., Heizler, M. T., McKeegan, K. D., and Schmidt, A. K., 2010, In situ  $^{40}\text{K}$ - $^{40}\text{Ca}$  'double-plus' SIMS dating resolves the Klokken feldspar  $^{40}\text{K}$ - $^{40}\text{Ar}$  paradox, *Earth and Planetary Sci. Lett.*, v. 299, 426-433.
130. Karlstrom, K.E., Heizler, M., and Quigley, M.C., 2010, Structure and  $^{40}\text{Ar}/^{39}\text{Ar}$  K-feldspar thermal history of the Gold Butte block: Reevaluation of the tilted crustal section model, in Umhoefer, P.J., Beard, L.S., and Lamb, M.A., eds., *Miocene Tectonics of the Lake Mead Region, Central Basin and Range: Geological Society of America Special Paper 463*, doi: 10.1130/2010.2463(15).
129. Murray, B. P., Horton, B. K., Matos, R., and Heizler, M. T., 2010, Oligocene-Miocene basin evolution in the northern Altiplano, Bolivia: Implications for evolution of the central Andean backthrust belt and high plateau: *Geological Society of America Bulletin*, v. 122, no. 9-10, p. 1443-1462.
128. Naibert, T. J., Geissman, J. W., and Heizler, M. T., 2010, Magnetic fabric, paleomagnetic, and Ar-40/Ar-39 geochronologic data bearing on the emplacement of the Late Cretaceous Philipsburg Batholith, SW Montana fold-and-thrust belt: *Lithosphere*, v. 2, no. 5, p. 303-327.
127. Quigley, M.C., Karlstrom, K.E., Kelley, S.A., Heizler, M.T., 2010, Timing and mechanisms of basement uplift and exhumation in the Colorado Plateau-Basin and Range transition zone, Virgin Mts. Anticline, Nevada-Arizona, in Umhoefer, P.J., Beard, L.S., and Lamb, M.A., eds., *Miocene Tectonics of the Lake Mead Region, Central Basin and Range: Geological Society of America Special Paper 463*, doi: 10.1130/2010.2463(14).
126. Velador, J. M., Heizler, M. T., Campbell, A. R., 2010, Timing of magmatic activity and mineralization and evidence of a long-lived hydrothermal system in the Fresnillo silver district, Mexico: Constrained by  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology, *Economic Geology*, v. 105, 1-15.

2009

125. Aster, R., MacCarthy, J., Heizler, M.T., Kelley, S.A., Karlstrom, K., Crossey, L., and Dueker, K., 2009, CREST Experiment probes the Roots and Geologic History of the Colorado Rockies, *Outcrop*, v. 58, no. 1, 6-23.
124. Boztug, D., Turksever, E., Heizler, M., Jonckheere, R. C., and Tichomirowa, M., 2009, Pb-207-Pb-206, Ar-40-Ar-39 and Apatite Fission-Track Geothermochronology Revealing the Emplacement, Cooling and Exhumation History of the Karacayir Syenite (N Sivas), East-Central Anatolia, Turkey: *Turkish Journal of Earth Sciences*, v. 18, no. 1, p. 109-125.
123. Boztug, D., Guney, O., Heizler, M., Jonckheere, R. C., Tichomirowa, M., and Otlu, N., 2009, Pb-207-Pb-206, Ar-40-Ar-39 and Fission-Track Geothermochronology Quantifying Cooling and Exhumation History of the Kaman-Kirsehir Region Intrusions, Central Anatolia, Turkey: *Turkish Journal of Earth Sciences*, v. 18, no. 1, p. 85-108.

122. Boztug, D., Jonckheere, R. C., Heizler, M., Ratschbacher, L., Harlavan, Y., and Tichomirova, M., 2009, Timing of post-obduction granitoids from intrusion through cooling to exhumation in central Anatolia, Turkey: *Tectonophysics*, v. 473, no. 1-2, p. 223-233.
121. Cather, S.M., Heizler, M.T., 2009, Geologic Relationships and new  $^{40}\text{Ar}/^{39}\text{Ar}$  Age of Lavas in the Broken Back Crater Area, New Mexico Geological Society Guidebook 60 (road log), *Geology of the Chupadera Mesa*, 43-45.
120. Harrison, T.M., Celerier, J., Aikman, A., Hermann, J., and Heizler, M.T., 2009. Diffusion of  $^{40}\text{Ar}$  in muscovite, *Geochim. Cosmochim. Acta*, 73, 1039-1051.
119. Harrison, T.M., Heizler, M.T., Haviv, I., Avouac, J.P., 2009. Continuous thermal histories from muscovite  $^{40}\text{Ar}/^{39}\text{Ar}$  age spectra. *Geochimica Et Cosmochimica Acta* 73, A497.
118. Renne, P. R., Deino, A. L., Hames, W. E., Heizler, M. T., Hemming, S. R., Hodges, K. V., Koppers, A. A. P., Mark, D. F., Morgan, L. E., Phillips, D., Singer, B. S., Turrin, B. D., Villa, I. M., Villeneuve, M., and Wijbrans, J. R., 2009, Data reporting norms for Ar-40/Ar-39 geochronology: *Quaternary Geochronology*, v. 4, no. 5, p. 346-352.
117. Seaton, N. C. A., Whitney, D. L., Teyssier, C., Toraman, E., and Heizler, M. T., 2009, Recrystallization of high-pressure marble (Sivrihisar, Turkey): *Tectonophysics*, v. 479, no. 3-4, p. 241-253.

## 2008

116. Brueseke, M. E., Hart, W. K., and Heizler, M. T., 2008, Diverse mid-Miocene silicic volcanism associated with the Yellowstone-Newberry thermal anomaly: *Bulletin of Volcanology*, v. 70, no. 3, p. 343-360.
115. Celerier, J., Harrison, T. M., Aikman, A. B., Hermann, J., and Heizler, M. T., 2008, Ar-40 diffusion in muscovite: *Geochimica Et Cosmochimica Acta*, v. 72, no. 12, p. A144-A144.
114. Reagan, M. K., Hanan, B. B., Heizler, M. T., Hartman, B. S., and Hickey-Vargas, R., 2008, Petrogenesis of volcanic rocks from Saipan and Rota, Mariana Islands, and implications for the evolution of Nascent Island arcs: *Journal of Petrology*, v. 49, no. 3, p. 441-464.
113. Renne, P. R., Sharp, Z. D., and Heizler, M. T., 2008, Cl-derived argon isotope production in the CLICIT facility of OSTR reactor and the effects of the Cl-correction in Ar-40/Ar-39 geochronology: *Chemical Geology*, v. 255, no. 3-4, p. 463-466.

## 2007

112. Brueseke, M. E., Heizler, M. T., Hart, W. K., and Mertzman, S. A., 2007, Distribution and geochronology of Oregon Plateau (USA) flood basalt volcanism: The Steens Basalt revisited: *Journal of Volcanology and Geothermal Research*, v. 161, no. 3, p. 187-214.
111. He, S. D., Kapp, P., DeCelles, P. G., Gehrels, G. E., and Heizler, M., 2007, Cretaceous-Tertiary geology of the Gangdese Arc in the Linzhou area, southern Tibet: *Tectonophysics*, v. 433, no. 1-4, p. 15-37.
110. Kawakami, T., Aoya, M., Wallis, S. R., Lee, J., Terada, K., Wang, Y., and Heizler, M., 2007, Contact metamorphism in the Malashan dome, North Himalayan gneiss domes, southern Tibet: an example of shallow extensional tectonics in the Tethys Himalaya: *Journal of Metamorphic Geology*, v. 25, no. 8, p. 831-853.
109. Schneider, D.A., Heizler, M.T., Bickford, M.E., Wortman, G.L., Condie, K.C., and Perilli, S., 2007. Timing constraints of orogeny to cratonization: Thermochronology of the Paleoproterozoic Trans-Hudson orogen, Manitoba and Saskatchewan, Canada, *Precambrian Research*, 153, 65-95.
108. Whitney, D. L., Teyssier, C., and Heizler, M. T., 2007, Gneiss domes, metamorphic core complexes, and wrench zones: Thermal and structural evolution of the Nigde Massif, central Anatolia: *Tectonics*, v. 26.

## 2006

107. Cather, S.M., Karlstrom, K.E., Timmons, J.M., and Heizler, M.T., 2006, Palispastic reconstruction of Proterozoic basement-related aeromagnetic features in north-central New Mexico: Implications for Mesoproterozoic to Late Cenozoic tectonism: *Geosphere*, v. 2, p. 299-323.
106. Duebendorfer E. M., Chamberlain K. R., and Heizler M. T., 2006, Filling the North American Proterozoic tectonic gap: 1.60-1.59-Ga deformation and orogenesis in southern Wyoming, USA. *Journal of Geology* 114, no.1(1), 19-42.
105. Jessup, M. J., Jones, J. V., Karlstrom, K. E., Williams, M. L., Connelly, J. N., and Heizler, M. T., 2006, Three Proterozoic orogenic episodes and an intervening exhumation event in the Black Canyon of the Gunnison region, Colorado: *Journal of Geology*, v. 114, no. 5, p. 555-576.
104. Sanders, R.E., Heizler, M.T. and Goodwin, L.B., 2006,  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronology constraints on the timing of Proterozoic basement exhumation and fault ancestry, southern Sangre de Cristo Range, New Mexico. *Geol. Soc. of Am. Bull.*, 118, 11, 1489-1506.

## 2005

103. Amarante, J. F., Kelley, S., Heizler, M. T., Barnes, M. and Miller, K., 2005, Characterization and Age of the Mesoproterozoic Debaca Sequence in Tucumcari Basin, New Mexico, in *Lithospheric structure and evolution of the Rocky Mountains*, Karlstrom, K. E. and Keller, G.R., ed(s)., American Geophysical Union Monograph Series 154, 163-184.
102. Aoya, M., Wallis, S. R., Terada, K., Lee, J., Kawakami, T., Wang, Y., and Heizler, M., 2005, North-south extension in the Tibetan crust triggered by granite emplacement: *Geology*, v. 33, no. 11, p. 853-856.
101. Rampe, J. S., Geissman, J. W., Melker, M. D. Heizler M. T., 2005, Paleomagnetic and Geochronologic Data Bearing on the Timing and Evolution of the Cripple Creek Diatreme Complex and Related rocks, Front Range, Colorado. , in *Lithospheric structure and evolution of the Rocky Mountains*, Karlstrom, K. E. and Keller, G.R., ed(s)., American Geophysical Union Monograph Series 154, 163-184.
100. Re, G.H., Llambias, E., Madden, R.H., Heizler, M., Vilas, J.F., Rodriguez, M.E., Kay, R.F., Carlini, A.A., de Barrio, R.E., Gonzalez, P.D., Leal, P., 2005. Polaridad magnetica preliminar de las sedimentitas de la Formacion Sarmiento (Gran Barranca del Lago Colhue Huapi, Chubut, Argentina). *Actas del Congreso Geologico Argentino* 16, 387-394.
99. Shaw, C. A., Heizler, M., Karlstrom, K. E., 2005, Mid-Crustal temperatures during ca. 1.4 Ga metamorphism in the southwestern United States: A regional synthesis of  $^{40}\text{Ar}/^{39}\text{Ar}$  data, in *Lithospheric structure and evolution of the Rocky Mountains*, Karlstrom, K.E. and Keller, G.R., ed(s)., American Geophysical Union Monograph Series 154, 163-184.
98. Timmons, J. M., Karlstrom, K. E., Heizler, M. T., Bowring, S. A., Gehrels, G. E., and Crossey, L. J., 2005, Tectonic inferences from the ca. 1254 -1100 Ma Unkar Group and Nankowep Formation, Grand Canyon: Intracratonic deformation and basin formation during protracted Grenville orogenesis, *Geol. Soc. of Am. Bull.*, 117, 11/12, 1573-1595.

## 2004

97. Bettis, E. A., Zaim, Y., Larick, R. R., Ciochon, R. L., Suminto, Rizal, Y., Reagan, M., and Heizler, M., 2004, Landscape development preceding Homo erectus immigration into Central Java, Indonesia: the Sangiran Formation Lower Lahar: *Palaeogeography Palaeoclimatology Palaeoecology*, v. 206, no. 1-2, p. 115-131.
96. Erslev, E.A., Fankhauser, S.D., Heizler, M.T., Sanders, R.E., Cather, S.M., 2004, Strike-slip Tectonics and Thermochronology of northern New Mexico: A field guide to critical exposures in the Southern Sangre de Cristo Mountains, in: *Field trips to the Southern Rocky Mountains*, Nelson, E.P.,

Erslev, E.A., ed(s), Geological Society America, Field Guide, v. 5, p. 15-40.

95. Ispolatov, V. O., Tikhomirov, P. L., Heizler, M., and Cherepanova, I. Y., 2004, New Ar-40/Ar-39 ages of Cretaceous continental volcanics from central Chukotka: Implications for initiation and duration of volcanism within the northern part of the Okhotsk-Chukotka volcanic belt (northeastern Eurasia): *Journal of Geology*, v. 112, no. 3, p. 369-377.
94. Karlstrom, K.E., Amato, J.M., Williams, M.L., Heizler, M., Shaw, C.A., Read, A.S., and Bauer, P., 2004, Proterozoic tectonic evolution of the New Mexico Region: A Synthesis, in: *The Geology of New Mexico*, Mack, G.H. and Giles, K.A., ed(s), New Mexico Geological Society Special Publication v. 11, p. 1-34.
93. Madden, R., Kay, R., Heizler, M., Vilas, J., 2004. Geochronology Of The Sarmiento Formation At Gran Barranca And Elsewhere In Patagonia: Calibrating Middle Cenozoic Mammal Evolution In South America. *Journal of Vertebrate Paleontology* 24, 87A-87A.

### 2003

92. Bellucci, R. G., Heizler, M. T., Belkin, H. E., and De Vivo, B., 2003, Tectonic Controls on the Genesis of Ignimbrites from the Campanian Volcanic Zone, Southern Italy. *Contributions to Mineralogy and Petrology*, v. 11, 79-97.
91. Ciochon, R., Bettis, A., Larick, R., Zaim, Y., Suminto, Rizal, Y., Reagan, M., and Heizler, M., 2003, Homo erectus landscapes: Paleosols in the Bapang and Upper Sangiran Formations, Solo Basin, Central Java: *American Journal of Physical Anthropology*, p. 77-77.
90. Faulds, J.E., Wallace, M. A., Gonzalez, L. A., Heizler, M.T., 2003, Depositional Environment and Paleogeographic Implications of the Late Miocene Hualapai Limestone, Northwest Arizona and Southern Nevada. *Grand Canyon Symposium Special Publication*.
89. Gomez, E., Jordan, T. E., Allmendinger, R. W., Hegarty, K., Kelley, S., and Heizler, M., 2003, Controls on architecture of the Late Cretaceous to Cenozoic southern Middle Magdalena Valley Basin, Colombia: *Geological Society of America Bulletin*, v. 115, no. 2, p. 131-147.
88. McLemore, V. T., Dunbar, N., Kosunen, P. J., Ramo, O. T., Heizler, M. T., and Haapala, I., 2003, Geology and Geochemistry of the Proterozoic Redrock Granite and Anorthosite xenoliths in the Northern Burro Mountains, Grant County, New Mexico, USA, *Bull. Geo. Soc. Of Finland*, v. 74, 7-52.
87. Ramo, O. T., McLemore, V. T., Hamilton, M. A., Kosunen, P. J., Heizler, M., and Haapala, I., 2003, Intermittent 1630-1220 Ma magmatism in central Mazatzal province: New geochronologic piercing points and some tectonic implications: *Geology*, v. 31, no. 4, p. 335-338.
86. Rolandi, G., Bellucci, F., Heizler, M. T., Belkin, H. E., and De Vivo, B., 2003, Tectonic controls on the genesis of ignimbrites from the Campanian Volcanic Zone, southern Italy: *Mineralogy and Petrology*, v. 79, no. 1-2, p. 3-31.
85. Strickland, D., Heizler, M. T., Karlstrom, K. E., and Selverstone, J., 2003, Proterozoic evolution of the Zuni Mountains, western New Mexico, and their relation to the Jemez Lineament as a proposed crustal boundary, 54th NMGS Guidebook, 109-117.
84. Weil, A. B., Geissman, J. W., Heizler, M., and Van der Voo, R., 2003, Paleomagnetism of Middle Proterozoic mafic intrusions and Upper Proterozoic (Nankoweap) red beds from the Lower Grand Canyon Supergroup, Arizona: *Tectonophysics*, v. 375, no. 1-4, p. 199-220.
83. Whitney, D. L., Teyssier, C., Fayon, A. K., Hamilton, M. A., and Heizler, M., 2003, Tectonic controls on metamorphism, partial melting, and intrusion: timing and duration of regional metamorphism and magmatism in the Nigde Massif, Turkey: *Tectonophysics*, v. 376, no. 1-2, p. 37-60.

## 2002

82. Karlstrom, K.E., Bowring, S.A., Chamberlain, K.R., Dueker, K.G., Eshete, T., Erslev, E.A., Farmer, G.L., Heizler, M., Humphreys, E.D., Johnson, R.A., Keller, G.R., Kelley, S.A., Levander, A., Magnani, M.B., Matzel, J.P., McCoy, A.M., Miller, K.C., Morozova, E.A., Pazzaglia, F.J., Prodehl, C., Pumper, H.-M., Shaw, C.A., Sheeham, A.F., Shoshitaishvili, E., Smithson, S.B., Snelson, C.M., Stevens, L.M., Tyson, A.R. and Williams, M.L., 2002, Structure and evolution of the lithosphere beneath the Rocky Mountains: Initial results from the CD-ROM Experiment. *GSA Today*, 12, 4-9.
81. Nelson, S. T., Harris, R. A., Dorais, M. J., Heizler, M., Constenius, K. N., and Barnett, D. E., 2002, Basement complexes in the Wasatch fault, Utah, provide new limits on crustal accretion: *Geology*, v. 30, no. 9, p. 831-834.

## 2001

80. Campbell, K. E., Heizler, M. T., Frailey, C. D., Romero-Pittman, L., Prothero, D. R., 2001, Upper Cenozoic Chronostratigraphy of the Amazon. *Geology*, 29, no. 7, 595-598.
79. Ciochon, R. L., Larick, R., Zaim, Y., Sudijono, and Heizler, M., 2001, Early pleistocene dates and sedimentary cycles for new Bapang formation hominins, central Java, Indonesia: *American Journal of Physical Anthropology*, p. 50-50.
78. Harris, R., Erskine, M.C., Nelson, S., Dorias, M., Kowalis, B., Harris, D., Heizler, M., Faulds, J.E., Bartley, J.M., Rowley, P.D., 2001. Tectonic evolution of the northern-most basement of the Colorado Plateau; petrology and thermochronology of the Santaquin metamorphic complex, southern Wasatch Range, Utah. *Guidebook - Pacific Section, American Association of Petroleum Geologists* 78, 422-423.
77. Karlstrom, K.E., Erskine, M.C., Quigley, M.C., Bowring, S., Kirby, E., Hook, S., Heizler, M., Faulds, J.E., Bartley, J.M., Rowley, P.D., 2001. Low angle detachment along the great unconformity near the Colorado Plateau-Basin and Range breakaway; arguments against a tipped crustal section in the Gold Butte area, southern Nevada. *Guidebook - Pacific Section, American Association of Petroleum Geologists* 78, 425.
76. Kay, R.F., Zucol, A., Madden, R.H., Bellosi, E., Carlini, A.A., Heizler, M., Re, G., Vilas, F., Vucetich, M.G., Noriega, J.I., Brea, M., 2001. Puesto Almendra-Colhue-Huapi contact at Gran Barranca, Sarmiento Formation, Chubut, Argentina. *Ameghiniana* 38, Suppl , 35.
75. Kay, R.F., Zucol, A., Madden, R.H., Carlini, A.A., Bellosi, E., Heizler, M., Re, G., Vilas, F., Vucetich, M.G., Noriega, J.I., Brea, M., 2001. The Mustersan interval at Gran Barranca. *Ameghiniana* 38, Suppl , 34.
74. Larick, R., Ciochon, R. L., Zaim, Y., Suminto, S., Rizal, Y., Aziz, F., Reagan, M., Heizler, M. T., 2001, Early Pleistocene  $^{40}\text{Ar}/^{39}\text{Ar}$  Dates for Bapang Formation Hominins, Sangiran Dome, Central Jawa, Indonesia, *Proceedings of National Academy of Sciences*, 98, 4866-4871.
73. Parry, W.T., Wilson, P.N., Mosher, D., and Heizler, M.T., 2001, U-Pb Dating of Zircon and  $^{40}\text{Ar}/^{39}\text{Ar}$  Dating of Biotite at Bingham, Utah. *Economic Geology*, 96, 1671-1683.
72. Timmons, M. J., Karlstrom, K. E., Dehler, C. M., and Heizler, M. T., 2001, Proterozoic multistage (~1.1 and 0.8 Ga) extension in the Grand Canyon Supergroup and establishment of northwest and north-south tectonic grains in the southwestern United States. *Geol. Soc. Am. Bull.*, 113, 163-180.
71. Woldegabriel, G., Warren, R.G., Broxton, D.E., Vaniman, D.T., Heizler, M.T., Kluk, E.C., Peters, L., 2001, Episodic volcanism, petrology and lithostratigraphy of the Pajarito Plateau and adjacent areas of the Espanola Basin and Jemez Mountains, in *Volcanology in New Mexico*, Crumpler, L.S., Lucas, S.G., ed(s), *New Mexico Natural History and Science Bulletin*, v. 18, 97-129.

## 2000

70. Bradley, D. C., Parrish, R., Clendenen, B., Lux, D.R., Layer, P., Heizler, M. T., Donley, D. T., 2000, New geochronological evidence for the timing of early Tertiary ridge subduction in Southern Alaska, U.S.G.S. Prof. Paper 1615, 5-20.
69. Channell, R., McMillan, N. J., Lawton, T. F., Heizler, M. T., Esser, R. P., and McLemore, V. T. 2000, Magmatic History of the Little Hatchet Mountains, Hidalgo and Grant Counties, Southwestern New Mexico. in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, 141-148.
68. Ispolatov, V. O., Heizler, M. T., Norman, D. I., 2000, Geology and tectonic setting of the Solton Sary Gold District, Kyrgyzstan in Cluer, J.K., Price, J.G., Struhsacker, E.M., Hardymann, R.F., and Morris, C.L., eds., Geology and Ore Deposits 2000: The Great Basin and Beyond: Geological Society of Nevada Symposium Proceedings, Reno/Sparks, May 2000, p. 507-511.
67. McLemore, V. T., Dunbar, N. W., Heizler, M. T., and Donahue, K. 2000, Geology and Mineral Deposits of the Victorio Mining District, Luna County, New Mexico: Preliminary observations, New Mexico Geol. Soc. Guidebook, 51<sup>st</sup> field conference, 267-278.
66. McLemore, V. T., Heizler, M. T., Peters, L., 2000, <sup>40</sup>Ar/<sup>39</sup>Ar geochronology of igneous rocks in the Lordsburg district, northern Pyramid Mountains, Hidalgo County, New Mexico; in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 6-8.
65. McLemore, V. T., Munroe, E. A., Heizler, M. T. and McKee, C., 2000, Geology and evolution of the Copper Flat Porphyry-Copper and associated mineral deposits in the Hillsboro mining district, Sierra County, New Mexico; in Cluer, J.K., Price, J.G., Struhsacker, E.M., Hardymann, R.F., and Morris, C.L., eds., Geology and Ore Deposits 2000: The Great Basin and Beyond: Geological Society of Nevada Symposium Proceedings, Reno/Sparks, 643-659.
64. McLemore, V. T., Ramo, T. O., Kosunen, P. J., Heizler, M. T., Haapala, I., and McKee, C., 2000, Geology and Geochemistry of Proterozoic Anorthosites and Granites in the Redrock area, Northern Burro Mountains, Grant County, New Mexico; a progress report, in Lawton, T. F., McMillan, N. J., McLemore, V. T., Austin, G., and Barker, J. M. eds., Southwest Passage, A Trip through the Phanerozoic: New Mexico Geological Society Guidebook 51, pp. 117-126.
63. Moore, J. N., Powell, T. S., Heizler, M. T., and Norman, D. I., 2000, Mineralization and hydrothermal history of the Tiwi, Phillipines geothermal system, Economic Geology, 95, 1001-1023.
62. Ressel, M. W., Noble, D. C., Volk, J. A., Lamb, J. B., Park, D., Yesilyurt, S., Conrad, J. E., and Heizler, M. T., 2000, Precious-Metal mineralization in Eocene dikes at Griffin and Meikle: Bearing on the age and origin of Gold Deposits of the Carlin Trend, Nevada. in Cluer, J.K., Price, J.G., Struhsacker, E.M., Hardymann, R.F., and Morris, C.L., eds., Geology and Ore Deposits 2000: The Great Basin and Beyond: Geological Society of Nevada Symposium Proceedings, Reno/Sparks.
61. Siddoway, C.; Givot, R. M.; Bodle, C. D., and Heizler, M.T., 2000, Dynamic setting for Proterozoic plutonism: information from host rock fabrics, central and northern Wet Mountains, Colorado. Special issue: Proterozoic Magmatism of the Rocky Mountain Region, Carol Frost (ed.), Rocky Mountain Geology, v. 35, no. 1, 1-21.
60. Wannamaker, P. E., Hulen, J. B., and Heizler, M. T., 2000, Early Miocene Lamproite from the Colorado Plateau Tectonic Province, Southeastern Utah, U.S.A. J. Volcan. Geothermal Res., 96, 175-190.

## 1999

59. Brown, C., Karlstrom, K. E., Heizler, M. T., and Unruh, D., 1999, Paleoproterozoic deformation, metamorphism, and <sup>40</sup>Ar/<sup>39</sup>Ar thermal history of the 1.65 Ga Manzanita pluton, Manzanita Mountains, New Mexico. New Mexico Geol. Soc. Guidebook, 50<sup>th</sup> field conference, 255-268.

58. Carlini, A.A., Anonymous, Vucetich, M.G., Mazzoni, M.M., Zucol, A., Re, G.H., Vilas, J.F.A., Kay, R.F., Madden, R.H., Heizler, M., 1999. Implications of the late Eocene age of the Casamayoran fauna at Gran Barranca, Patagonia. *Journal of Vertebrate Paleontology* 19, Suppl , 35.
57. Heizler, Matthew T., Perry, Frank V., Crowe, Bruce M., Peters, L., and Appelt, R., 1999, The age of Lathrop Wells Volcanic Center: An  $^{40}\text{Ar}/^{39}\text{Ar}$  dating investigation. *Journal of Geophysical Research*, v. 104, 767-804.
56. Karlstrom, K. E., Cather, S. M., Kelley, S., Heizler, M. T., Pazzaglia, F., and Roy, M., 1999, Sandia Mountains and Rio Grande Rift: Ancestry of structures and history of deformation. *New Mexico Geol. Soc. Guidebook*, 50<sup>th</sup> field conference, 155-165.
55. Kay, R.F., Madden, R.H., Mazzoni, M., Vucetich, M.G., Re, G., Heizler, M., Sandeman, H., 1999. The oldest Argentine primates: first age determinations for the Colhuehuapian South American Land Mammal 'Age'. *American Journal of Physical Anthropology*, 166-166.
54. Kay, R. F., Madden, R. H., Vucetich, M. G., Carlini, A. A., Mazzoni, M. M., Re, G. H., Heizler, M. T., and Sandeman, H., 1999, Revised age of the Casamayoran South American Land Mammal Age: Climatic and biotic implications, *Proc. National Academy of Science*, v. 96, no. 23, 13235-13240.
53. Marcoline, J. R., Heizler, M. T., Goodwin, L. B., Ralser, S., and Clarke, J., 1999, Thermal, Structural and Petrological evidence for 1400-Ma metamorphism and deformation in central New Mexico. *Rocky Mt. Geol.*, v. 34, 93-119.
52. McLemore, V. T., McMillian, N. J., Heizler, M. T., and McKee, C., 1999, Cambrian alkaline rocks at Lobo Hill, Torrance County, New Mexico: More evidence for a Cambrian-Ordovician aulacogen. *New Mexico Geol. Soc. Guidebook*, 50<sup>th</sup> field conference, 247-253.
51. McLemore, V. T., Munroe, E. A., Heizler, M. T., and McKee, C., 1999, Geochemistry of the Copper Flat porphyry and associated deposits in the Hillsburo Mining District, Sierra County, New Mexico, USA. *Geochemical Exploration*, v. 66, 167-189.
50. Nelson, S.T., and Davidson, J. P., Kowallis, B.J., and Heizler, M.T., 1999, Tertiary tectonic history of the southern Andes: the subvolcanic sequence to the Tatara-San Pedro Volcanic Complex, 36°S: *Geological Society of America Bulletin*, v. 111, p. 1387-1404.
49. Nielson, D.L., Moore, J.N., Heizler, M.T., 1999, Lower limits of hydrothermal circulation in the Tiwi Geothermal field, Luzon, *Proc. 24<sup>th</sup> Workshop on Geothermal Res. Engineering*, Stanford Univ., Stanford, CA, Jan. 25-27.
48. Noble, D. C., Wise, J. M., Vidal, C. E., and Heizler, M. T., 1999, Age and deformation history of the "Calipuy Group" in the cordillera Negra, Northern Peru. *Geological Soc. Peru, 75<sup>th</sup> Anniversary Special Issue*, , No. 5, 219-226.
47. Read, A. S., Karlstrom, K. E., Grambling, J.A., Bowring, S.A., Heizler, M. T., and Daniel, C., 1999, A middle-crustal cross section from the Rincon Range, northern New Mexico: Evidence for 1.68-Ga, pluton-influenced tectonism and 1.4-Ga regional metamorphism. *Rocky Mt. Geol.*, v. 34, 67-91.

## 1998

46. Bickford, M.E., Condie, K.C., Heizler, M., Kelley, S.A., Lewry, J.F., 1998. How an orogen became a craton; thermochronology of the Trans-Hudson Orogen, Canada. *Report of Activities - Manitoba. Geological Services Branch*, 32-33.
45. Heizler, M.T. and Harrison, T.M., 1998, The thermal history of the New York basement determined from  $^{40}\text{Ar}/^{39}\text{Ar}$  K-feldspar studies. *Journal of Geophysical Research*, v. 103, 29,795-29,814.
44. Lueth, L.W., Goodell, P.C., Heizler, M.T., Peters, L., 1998, Geochemistry, geochronology, and Tectonic implications of jarosite mineralization in the Northern Franklin Mountains, Dona Ana County, New Mexico. *New Mexico Geol. Soc. Guidebook*, 49<sup>th</sup> field conference, 309-316.
43. Miller, J.S., Heizler, M.T., Miller, C.F., 1998. Timing of magmatism, basin formation, and tilting at the west edge of the Colorado River extensional corridor: Results from single-crystal Ar-40/Ar-39 geochronology of Tertiary rocks in the Old Woman Mountains area, southeastern California. *Journal of Geology* 106, 195-209.



42. Perry, F.V., B. M. Crowe, S. G. Wells, L. D. McFadden, J. W. Geissman, J. Poths, M. T. Murrell, M. T. Heizler, L. M. Bowker, K. P. Finnegan and G. A. Valentine, 1998. Geology and Geochronology of Basaltic Volcanism in the Yucca Mountain Region, in Synthesis of Volcanism Studies for the Yucca Mountain Site Characterization Project, Perry F. V., B. M. Crowe, G. A. Valentine, and L. M. Bowker, Eds., Los Alamos National Laboratory report LA-15086-MS.

## 1997

41. Esser, R.P., McIntosh, W.C., Heizler, M.T. and Kyle, P.R., 1997, Excess argon in melt inclusions in zero-age anorthoclase feldspar from Mt. Erebus, Antarctica, as revealed by the  $^{40}\text{Ar}/^{39}\text{Ar}$  method, *Geochim. Cosmochim. Acta.*, v. 61, 3789-3801.
40. Groff, J., Heizler, Matthew T., McIntosh, William, C., Norman, D.I., 1997,  $^{40}\text{Ar}/^{39}\text{Ar}$  dating and mineral paragenesis for Carlin-type gold deposits along the Getchell trend, Nevada: Evidence for Cretaceous and Tertiary gold mineralization. *Economic geology* v. 92, 601-622
39. Heizler, M.T., Ralser S., and Karlstrom, K.E., 1997, Late Proterozoic (Grenville ?) deformation in central New Mexico determined from single crystal muscovite  $^{40}\text{Ar}/^{39}\text{Ar}$  age spectra, *Precambrian Research*, v. 84, 1-15.
38. Henry, Christopher D., Elson, Hallet B., McIntosh, William C., Heizler, Matthew T., and Castor, Stephen, B., 1997, Brief duration of hydrothermal activity at Round Mountain, Nevada determined from  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology. *Economic Geology*, v. 92, 807-826.
37. Hoisch, Thomas, Heizler, Matthew, T., Zartman, Robert, 1997, Timing of detachment faulting west of Yucca Mountain, Nevada: Inferences from  $^{40}\text{Ar}/^{39}\text{Ar}$ , K-Ar, U-Pb and fission-track thermochronology. *Journal of Geophysical Research*, vol. 102, 2815-2833.
36. Hulen, J.B., Heizler, M.T., Stimac, J.A., Moore, J.N., and Quick, J.C., 1997, New constraints on the timing of magmatism, volcanism, and the onset of vapor-dominated conditions at the Geysers Steam Field, California. *Proceedings, 22nd workshop on Geothermal Reservoir Engineering, Stanford Univ., Stanford CA, Jan. 27-29, SGP-TR-115, 75-82.*
35. Miller, J.S., Heizler, M.T., Miller, C.F., 1997, Single crystal  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology of Tertiary rocks in the Old Woman Mountains Area, Southeastern California. *Journal of Geology*, v. 106, 195-209.
34. Moore, J.N., Powell, T.S., Bruton, C.J., Norman, D.I., and Heizler, M.T., 1997, Thermal and chemical evolution of the Tiwi Geothermal System, Philippines. *9th International Symposium on Water-Rock Interaction.*
33. Perry, W.T., Wilson, P.N., Jasumback, M., and Heizler, M.T., 1997, Clay mineralogy and  $^{40}\text{Ar}/^{39}\text{Ar}$  dating of phyllic and argillic alteration at Bingham, Utah. *GSA guidebook series for 1997 annual meeting.*

## 1996

32. Bohrsen, W. A., Reid, M. R., Grunder, A. L., Heizler, M. T., Harrison, T. M., and Lee, J. L., 1996, Prolonged history of silicic peralkaline volcanism in the eastern Pacific Ocean, *Journal. Geophys. Res.*, v. 101, 11457-11474.
31. Poths, J., Gosse, J.C., Anthony, E.Y., Williams, W.J., Heizler, M., McIntosh, W.C., Reedy, R.C., Harrington, C.D., Poths, J., 1996. Comparison Of Dates For Young Basalts From The  $^{40}\text{Ar}/^{39}\text{Ar}$  And Cosmogenic Helium Techniques. *Radiocarbon* 38, 167.
30. WoldeGabriel, G., Laughlin, A. W., Dethier, D., and Heizler, Matthew T., 1996, Temporal and geochemical trends of volcanic rocks in the White Rock Canyon of the Pajarito Plateau, Jemez Volcanic Field, New Mexico, *New Mexico Geological Society Guidebook*, vol. 47, 252-261.

## 1995

29. Falkner, C.M., Miller, C.F., Wooden, J.L. and Heizler, M.T., 1995, Petrogenesis and tectonic significance of the calc-alkaline, bimodal Aztec Wash pluton, Eldorado mountains, Colorado River Extensional Corridor. *Jour. Geophys. Res.*, v. 100, no. B7, p. 10453-476.
28. Miller, C.F., Brown, M., Patrick, D.W., Miller, J.S., Heizler, M.T., Wooden, J.L., Hook, S.J., Unkefer, J., Lee, Y.F.S., Falkner, C.M., Piccoli, P.M., 1995. Plutonism in a rapidly evolving

continental rift system, Eldorado Mountains, southern Nevada. U. S. Geological Survey Circular, 95-96.

27. Ralser, S., Heizler, M.T., 1995.  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronology of low-temperature shear zones, Manzano Mountains, central New Mexico, *New Mexico Geology* 17, 32.

#### 1994

26. Esser, R., Heizler, M., Kyle, P.R., McIntosh, W.C., 1994. Argon-40/argon-39 dating of Mount Erebus, Ross Island, Antarctica. *Antarctic Journal of the United States* 29, 14-15.
25. Goff, F., Stimac, J.A., Larocque, A.C.L., Hulen, J.B., McMurtry, G.M., Adams, A.I., Roldan-M, A., Trujillo, P.E., Counce, D., Chipera, S.J., Mann, D. and Heizler, M.T., 1994, Gold degassing and deposition at Galeras Volcano, Colombia. *Geol. Soc. Am. Bull., GSA Today*, 4, no. 10.
24. Harper, G.D., Saleeby J. and Heizler M.T., 1994, Formation and Emplacement of the Josephine Ophiolite and the Nevadan Orogeny in the Klamath Mountains, California-Oregon: U/Pb zircon and  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology. *Jour. Geophys. Res.*, 99, No. B3, 4293-4221.
23. Harrison, T.M., Heizler, M.T., Lovera O.M. and Wenji, C., 1994, A chlorine disinfectant for excess argon. *Earth Planet. Sci. Lett.*, 123, 95-104.

#### 1993

22. Harrison, T.M., Heizler, M.T. and Lovera O.M., 1993, In vacuo crushing experiments and K-feldspar thermochronometry. *Earth. Planet. Sci. Lett.*, 117, 169-180.
21. Lovera, O.M., Heizler, M.T. and Harrison, T.M., 1993, Argon diffusion domains in K-feldspar II: Kinetic properties of MH-10 K-feldspar. *Contrib. Min. and Pet.*, 113, 381-393.
20. Wirth, K.R., Bird, J.M., Blythe, A.E., Harding, D.J., and Heizler, M.T., 1993, Age and tectonic evolution of western Brooks Range ophiolites, Alaska: Results from  $^{40}\text{Ar}/^{39}\text{Ar}$  thermochronometry: *Tectonics*, 12, no. 2, p. 410-432.

#### 1992

19. Chen, W., Harrison, T.M., Heizler, M.T., L. Ruoxin, M. Bolin and L. Jiliang, 1992, The cooling history of a melange zone in North-Jiangsu-South Shandong region: evidence from multiple diffusion domain  $^{40}\text{Ar}$ - $^{39}\text{Ar}$  thermal chronology, *Acta Petrol. Sinica* 8, 1-17.
18. Grunow, A.M., Dalziel, I.W.D., Harrison, T.M. and Heizler, M.T., 1992, Structural geology and geochronology of subduction complexes along the margin of Gondwanaland: New data from the Antarctic Peninsula and southernmost Andes. *Geol. Soc. Am. Bull.*, 104, 1497-1514.
17. Nelson, S.T., Heizler, M.T. and Davidson, J.P., 1992, New  $^{40}\text{Ar}/^{39}\text{Ar}$  ages of intrusive rocks from the Henry and La Sal mountains, Utah. *Utah Geol. Survey, Misc. Publ.* 92-2, pp. 1-24.

#### 1991

16. Copeland, P.C., Harrison, T.M. and Heizler, M.T., 1990,  $^{40}\text{Ar}/^{39}\text{Ar}$  single crystal dating of detrital muscovite and K-feldspar from Leg 116, southern Bengal Fan: Implications for the uplift and erosion of the Himalayas. *Proc. of the ODP, Scientific results*, 116, 93-114.
15. Hansen V.L., Heizler, M.T. and Harrison, T.M., 1991, Mesozoic thermal evolution of the Yukon-Tanana composite terrane: New evidence from  $^{40}\text{Ar}/^{39}\text{Ar}$  data. *Tectonics*, 10, 51-76.
14. Harrison, T.M., Lovera, O.M. and Heizler M.T., 1991,  $^{40}\text{Ar}/^{39}\text{Ar}$  results for alkali feldspars containing diffusion domains with differing activation energy. *Geochim. Cosmochim. Acta.* 55,1435-1448.
13. Heizler, M.T. and Harrison, T.M., 1991, The heating duration and provenance age of rocks in the Salton Sea geothermal field, southern California. *J. Volcanol. Geotherm. Res.*, 46, 73-97.

## 1990

12. Delano, J.W., Schirnick, C., Bock B., Kidd, W.S.F., Putman, G.W., DeLong S.E., Heizler, M.T. and Ohr, M., 1990, Petrology and geochemistry of Middle Ordovician K-Bentonites in New York State: Constraints on the nature of a volcanic arc. *J. of Geol.*, 98, 157-170.
11. Foster, D.A., Harrison, T.M., Copeland, P. and Heizler, M.T., 1990, Effects of excess argon within large diffusion domains on K-feldspar age. *Geochim. Cosmochim. Acta.*, 54, 1699-1708.
10. Knapp, J. H., and Heizler, M. T., 1990, thermal history of crystalline nappes of the Maria fold-and-thrust belt, west central Arizona: *Journal of Geophysical Research-Solid Earth and Planets*, v. 95, no. B12, p. 20049-20073.
9. Sawka, W.N., Stein, H.J., Heizler, M.T., Kistler, R.W., Chappell, B.W., Hannah, J.L., 1990. Geochemistry of highly fractionated I- and S-type granites from the tin-tungsten province of western Tasmania. *Special Paper - Geological Society of America* 246, 161-179.

## 1989

8. Boone, G.M., Doty, D.T. and Heizler, M.T., 1989, Hurricane Mountain Formation Melange: Description and tectonic significance of a Penobscottian accretionary complex. *Maine Geol. Survey, Studies in Maine Geology*: 2, 33-83.
7. Harrison, T.M., Spear, F.S., and Heizler, M.T., 1989, Geochronologic studies in central New England II: Hinged and differential uplift. *Geology* 17, 185-189.
6. Isachsen, Y. W., Kelly, W. M., Sinton, C., Coish, R. A. and Heizler, M. T., 1989, Dikes of the northeast Adirondack Region-Introduction to their distribution, orientation, mineralogy, chronology, magnetism, chemistry and mystery. *New York State Museum Field trip Guidebook*.

## 1988

5. Geary, E.E., Harrison, T.M. and Heizler, M.T., 1988, Diverse ages and origins of basement complexes, Luzon, Philippines. *Geology*, 16, 341-344.
4. Heizler, M.T. and Harrison, T.M., 1988, Multiple trapped argon isotopic components revealed by  $^{40}\text{Ar}/^{39}\text{Ar}$  isochron analysis. *Geochim. Cosmochim. Acta.* 52, 295-1303.
3. Heizler, M.T., Lux, D.R. and Decker E.R., 1988, The age and cooling history of the Chain of Ponds and Big Island Pond plutons and the Spider Lake Granite, west-central Maine and Quebec. *Am. J. Sci.* 288, 925-952.
2. Hoisch, T.D., Miller, C.F., Heizler, M.T., Harrison, T.M. and Stoddard, E.F., 1988, Late Cretaceous regional metamorphism in southern California, in Ernst, W.G., ed., *Metamorphic and Crustal Evolution of the Western United States (Rubey Volume VII)*: Englewood Cliffs, New Jersey, Prentice-Hall, 538-571.

## 1987

1. Harrison, T.M., Heizler, M.T., Burke, K., 1987. Aspects of thermal evolution of Anadarko Basin, Oklahoma. *AAPG Bulletin* 71, 565.