

Curriculum Vitae

ANDREAS MÖLLER

The University of Kansas, Department of Geology
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Date / place of birth: 03. August 1963, Pinneberg (Germany)
Citizenship: German

PROFESSIONAL APPOINTMENTS

08/2015–present	Associate Professor	The University of Kansas, USA
01/2008–07/2015	Assistant Professor	The University of Kansas, USA
04/2001–12/2007	Research & Teaching Fellow	Universität Potsdam, Germany
10/1998–03/2001	Research Associate	Universität Mainz, Germany
12/1995–08/1998	Research Associate	University of NSW, Sydney, Australia
04/1990–07/1990	Mine Geologist	Callion Mining / Metallgesellschaft, Kalgoorlie, Australia
01/1989–02/1990	Research Assistant	(Hydrogeology) Universität Kiel
11/1987–12/1988	Research Assistant	(Marine Geology) Universität Kiel

ACADEMIC EDUCATION

03/1996	Dr. rer. nat. , Mineralogy (magna cum laude)
1994–1995 & 1990–1992	Doctoral student (Mineralogy), advisor: Volker Schenk, Universität Kiel
1993–1994	visiting student (isotope geochemistry), advisor: Klaus Mezger, Max-Planck-Institut f. Chemie, Mainz
02/1990	Diplom , Geology (M.Sc. equivalent) (sehr gut: <i>top grade</i>) Margot Isenbeck-Schröter, Georg Matthes (co-advisors)
1986–1990	Geology, Universität Kiel
12/1985	Vordiplom , Geology (intermediate exams) (sehr gut: <i>top grade</i>)
1983–1985	Geology, Universität Hamburg

PROFESSIONAL SOCIETY AFFILIATIONS

since 1992	Deutsche Mineralogische Gesellschaft
since 1995	Geological Society of America
since 2004	Mineralogical Society of America
since 2007	European Association of Geochemistry
since 2007	Geochemical Society
since 2010	American Geophysical Union

HONORS & AWARDS

2016	University of Lausanne, Herbetta Foundation Fellowship
2015	KU Department of Geology, Jan F. & Mary van Sant Geology Excellence Award

LANGUAGES:

German:	native
English:	fluent

<http://scholar.google.com/citations?hl=en&user=PCgPcVsAAAAJ>
<http://www.researcherid.com/rid/B-4638-2008>

Publications

Reviewed journal publications (asterisk* marks publications of supervised students)

Geological Society of America Bulletin

Submitted

- 46) C.C. Wohlgemuth-Ueberwasser, J.A. Schuessler, F. v. Blanckenburg, **A. Möller** (submitted) Matrix dependency of baddeleyite U-Pb geochronology by femtosecond-LA-ICP-MS and comparison with nanosecond-LA-ICP-MS – submitted to Journal of Analytical Atomic Spectrometry, 12/8/2017
- *45) B. Rocha, R. Moraes, **A. Möller**, C.R. Cioffi (submitted) Magmatic inheritance vs. UHT metamorphism: zircon petrochronology of granulites and charnockitic leucosomes of the Socorro-Guaxupé Nappe, SE Brazil – submitted to Lithos, 12/7/2017
- 44) D. Rösel, T. Zack, **A. Möller** (submitted) Interpretation and significance of combined trace element and U-Pb isotopic data of detrital rutile - a case study from Late Ordovician sedimentary rocks of Saxo-Thuringia, Germany –submitted to International Journal of Earth Sciences, 08/01/2017

In revision

- 43) J.A. Roberts, A. Olcott-Marshall, N.M. McLean, G.S. Baker, **A. Möller** (submitted) Demonstrating the impact of classroom transformation on STEM inequality in DFW rates (“D” or “F” grade or Withdraw) for first-time freshmen, females, and underrepresented minorities through a decadal study of introductory geology courses – submitted to Journal of Geoscience Education, 10/06/2017
- 42) T.S. Bidgoli, J.P. Tyrrell, **A. Möller**, J.D. Walker, D.F. Stockli (submitted) Conodont thermochronology of exhumed footwalls of low-angle normal faults: A pilot study in the Mormon Mountains, Tule Spring Hills, and Beaver Dam Mountains, southeastern Nevada and southwestern Utah – submitted to Chemical Geology, 10/18/2017
- *41) J. Oalman, **A. Möller**, R. Bousquet (in revision) Decoupling of Rutile Zr-thermometry and U-Pb chronometry in the UHT granulites and charnockites of the Gruf Complex (Central Alps) – accepted with revisions by Chemical Geology 06/2017

Accepted for publication (in press)

- 40) L. Staisch, H. Kelsey, B. Sherrod, **A. Möller**, J. Paces, R. Blakely, R. Styron (Oct. 2017 online) Miocene–Pleistocene deformation of the Saddle Mountains: implications for seismic hazard in central Washington, USA – in press with Geological Society of America Bulletin, doi.org/10.1130/B31783.1

Published (Research ID: >1350 citations; Google Scholar: >2000 citations)

- 39) S. Gürsu, P.A. Mueller, E. Sunkari, **A. Möller**, G. Kamenov, M.C. Göncüoğlu (2018) Combined zircon U-Pb and Lu-Hf Isotope Analyses on the the Glacial Granitic Dropstones within the Matrices of the Late Ordovician Diamictites in the Taurides, S Turkey: Constraints on the Petrogenesis, Tectonic Evolution and Provenance – Gondwana Research, **54**, 205-216. doi.org/10.1016/j.gr.2017.11.003
- 38) J.J. Smith, G.A. Ludvigson, A. Layzell, **A. Möller**, R.H. Harlow, E. Turner, B. Platt, M. Petronis (2017) Discovery of Paleogene deposits of the central High Plains aquifer in the western Great Plains, USA – Journal of Sedimentary Research **87**, 880-896. doi: 10.2110/jsr.2017.48
- *37) B. Rocha, R. Moraes, **A. Möller**, C.R. Cioffi, M.J. Jercinovic, (2017) Timing of anatexis and melt crystallization in the Socorro-Guaxupé Nappe, SE Brazil: insights from trace element composition of zircon, monazite and garnet coupled to U-Pb geochronology – Lithos **277**, 337-355. doi:10.1016/j.lithos.2016.05.020
- 36) S. Gürsu, **A. Möller**, D. Usta, S. Köksal, Ş. Ateş, E. Sunkari, M.C. Göncüoğlu (2017) Laser Ablation Inductively Coupled Plasma Mass Spectrometry U-Pb dating of detrital and magmatic zircons of glacial diamictites and pebbles in Late Ordovician sediments of the Taurides and Southeast Anatolian Authochthon Belt, Turkey: Indications for their Arabian-Nubian provenance – The Journal of Geology **125**, 165-202. doi: 10.1086/690199
- 35) J.B. Ross, G.A. Ludvigson, **A. Möller**, L.A. González, J.D. Walker (2017) Stable isotope paleohydrology of pedogenic carbonates in the Wayan Formation (Albian), wedge-top depozone in the North American Western Interior Basin – Science China Earth Sciences **60**, 44-57. doi: 10.1007/s11430-016-0087-5

- *34) C.R. Cioffi, M.C. Campos Neto, **A. Möller**, B.C. Rocha (2016) Tectonic significance of the Meso- to Neoproterozoic complexes in the basement of the southern Brasília Orogen – *Precambrian Research* **287**, 91-107. doi: 10.1016/j.precamres.2016.10.009
- *33) C.R. Cioffi, M.C. Campos Neto, **A. Möller**, B.C. Rocha (2016) Paleoproterozoic continental crust generation events at 2.15 and 2.08 Ga in the basement of the southern Brasília Orogen, SE Brazil – *Precambrian Research* **275**, 176-196. DOI:10.1016/j.precamres.2016.01.007
- 32) K. Hippe, **A. Möller**, A. von Quadt, I. Peytcheva, K. Hammerschmidt (2016) Zircon geochronology of the Koraput alkaline complex: Insights from combined geochemical and U-Pb-Hf isotope analyses, and implications for the timing of alkaline magmatism in the Eastern Ghats Belt, India – *Gondwana Research* **34**, 205-220. DOI: 10.1016/j.gr.2015.02.021
- 31) S. Gürsu, **A. Möller**, M.C. Göncüoğlu, S. Köksal, H. Demircan, F. Toksoy-Köksal, H. Kozlu, G. Sunal (2015) Neoproterozoic marginal arc volcanism at the northern edge of the Arabian Plate, SE Turkey – *Precambrian Research* **258**, 208-233. DOI: <http://dx.doi.org/10.1016/j.precamres.2014.12.017>
- 30) J. Nie, W. Peng, **A. Möller**, Y. Song, D.F. Stockli, T. Stevens, B.K. Horton, S. Liu, A. Bird, J. Oalman, H. Gong, Fang, X., (2014) Provenance of the upper Miocene-Pliocene Red Clay deposits of the Chinese loess plateau – *Earth and Planetary Science Letters* **407**, 35-47. DOI: 10.1016/j.epsl.2014.09.026.
- *29) D. Rösel, S.D. Boger, **A. Möller**, J. Oalman, B. Gaitzsch, M. Barth, T. Zack (2014) Indo-Antarctic derived detritus on the northern margin of Gondwana: evidence for continental-scale sediment transport – published online by *Terra Nova*, **26** (1), 64-71, DOI: 10.1111/ter.12070.
- 28) M. Moazzen, R. Hajialioghli, **A. Möller**, G.T.R. Droop, R. Oberhänsli, U. Altenberger, A. Jahangiri (2013) Oligocene partial melting in the Takab metamorphic complex, NW Iran: Evidence from in situ U-Pb geochronology – *Journal of Sciences, Islamic Republic of Iran*, **24** (3), 217-228.
- 27) S. Köksal, F. Toksoy-Köksal, M.C. Göncüoğlu, **A. Möller**, A. Gerdes & D. Frei (2013): Comment on: 3.8 Ga zircons sampled by Neogene ignimbrite eruptions in Central Anatolia by Paquette & LePennec – *Geology*, **41** (12), e307.
- 26) R.H. Styron, M.H. Taylor, K.E. Sundell, D.F. Stockli, J.A.G. Oalman, A.T. McCallister, D. Liu, **A. Möller** & L. Ding (2013) Miocene initiation and acceleration of extension in the South Lunggar rift, western Tibet: evolution of an active detachment system from structural mapping and (U-Th)/He thermochronology – *Tectonics*, **32**, 880-907, DOI: 10.1002/tect.20053.
- 25) J. Nie, W. Peng, K. Pfaff, **A. Möller**, E. Garzanti, S. Andò, T. Stevens, A. Bird, H. Chang, Y. Song, S. Liu & S. Ji (2013) Climatic control on heavy mineral assemblages in Chinese loess and red clay – *Palaeogeography, Palaeoclimatology, Palaeoecology*, **381-382**, 110-118. <http://dx.doi.org/10.1016/j.palaeo.2013.04.020>
- 24) S. Köksal, M.C. Göncüoğlu, F. Toksoy-Köksal, **A. Möller**, D. Frei, A. Gerdes (2013) Crustal source of the Late Cretaceous Satansari monzonite (central Anatolia-Turkey) and its significance for the Alpine geodynamic evolution – *Journal of Geodynamics*, **65**, 82-93. <http://dx.doi.org/10.1016/j.jog.2012.06.003>.
- 23) N.M. Kelly, S.L. Harley & **A. Möller** (2012) Complexity in the behaviour and recrystallization of monazite during high-T metamorphism and fluid infiltration – *Chemical Geology*, **322-323**, 192–208, <http://dx.doi.org/10.1016/j.chemgeo.2012.07.001>.
- 22) K. Ruschel, L. Nasdala, A. Kronz, J.M. Hanchar, D.M. Töbrens, R. Škoda, F. Finger & **A. Möller** (2012) A Raman spectroscopic study on the structural disorder of monazite – *Mineralogy and Petrology*, **105**, 41–55, DOI 10.1007/s00710-012-0197-7.
- 21) R. Bousquet, R. Oberhänsli, S.M. Schmid, A. Berger, M. Wiederkehr, C. Robert, **A. Möller**, C. Rosenberg, G. Zeilinger, G. Molli & F. Koller (2012) Metamorphic framework of the Alps, Scale: 1:1 000 000 – Commission for the Geological Map of the World, CCGM/CGMW. http://ccgm.free.fr/Alpes_Metam_GB.html
- 20) S. Köksal, **A. Möller**, M.C. Göncüoğlu, D. Frei & A. Gerdes (2012) Crustal homogenization during granitoid generation: evidence from zircon U-Pb ages and Lu-Hf isotope data from the late Cretaceous granitoids of the Ağaçören Intrusive Suite (Central Anatolia/Turkey) – *Contributions to Mineralogy and Petrology*, **163**, 725-743, DOI: 10.1007/s00410-011-0696-2
- *19) A. Riemann, R. Oberhänsli, **A. Möller**, A. Gerdes & Z. Xu (2009) In situ LA-SF-ICP-MS U-Pb dating of metasomatic zircon growth during retrogression of UHP eclogites, Sulu deep drilling hole, China – *European Journal of Mineralogy*, **21**, 1251-1264. DOI: 10.1127/0935-1221/2009/0021-2005.

- *18) S. Schmitz, **A. Möller**, M. Wilke, W. Malzer, B. Kanngiesser, R. Bousquet, A. Berger & S. Schefer (2009) Chemical U-Th-Pb dating of monazite by 3D-Micro x-ray fluorescence analysis with synchrotron radiation – *European Journal of Mineralogy*, **21**, 927-946. DOI:10.1127/0935-1221/2009/0021-1964
- 17) M. Moazzen, R. Oberhänsli, R. Hajialioghli, **A. Möller**, G.T.R. Droop, A. Jahangiri, & R. Bousquet (2009) Peak and post-peak P-T conditions and fluid composition for scapolite-clinopyroxene-garnet calcsilicates from the Takab area, NW Iran – *European Journal of Mineralogy* **21**, 149-162. DOI: 10.1127/0935-1221/2009/0021-1887
- 16) R. Bousquet, R. El Mamoun, O. Saddiqi, B. Goffé, **A. Möller** & A. Madi (2008) Mélanges and ophiolites during the Pan-African orogeny: the case of the Bou-Azzer ophiolite suite (Morocco) – In: J.-P. Liégeois & N. Ennih (eds) *Boundaries of the Western African Craton* – Geological Society, London, Special Publications **297**, 233-247. DOI: 10.1144/SP297.11.
- *15) S. Köksal, M.C. Göncüoğlu, F. Toksoy-Köksal, **A. Möller** & H. Kemnitz (2008) Zircon typologies and internal structures as petrogenetic indicators in contrasting granitoid types from Central Anatolia – *Mineralogy and Petrology* **93**, 185-211. DOI: 10.1007/s00710-007-0228-y.
- 14) S. Jung & **A. Möller** (2007) Editorial for Special Issue of *Chemical Geology* – Crustal dynamics: links between geochronology and petrology, 7 contributions, *Chemical Geology* **241**, 1-3.
- 13) S.L. Harley, N. Kelly & **A. Möller** (2007) Zircon behaviour and the thermal histories of mountain chains - *Elements* **3**, 25-30. DOI: 10.2113/gselements.3.1.25
- 12) L. Nasdala, A. Wildner, R. Wirth, N. Groschopf, D.C. Pal & **A. Möller** (2006) Alpha particle haloes in chlorite and cordierite - *Mineralogy and Petrology* **86**, 1-27.
- 11) **A. Möller**, P.J. O'Brien, A. Kennedy & A. Kröner (2003b) Linking growth episodes of zircon and metamorphic textures to zircon chemistry: an example from the ultrahigh-temperature granulites of Rogaland (SW Norway) – In: D. Vance, W. Müller, I.M. Villa (eds) *Geochronology: Linking the Isotopic Record with Petrology and Textures* - Geological Society, London, *Special Publications* **220**, 65-81. DOI: 10.1144/GSL.SP.2003.220.01.04
- 10) **A. Möller**, B.J. Hensen, R.A. Armstrong, K. Mezger & M. Ballèvre (2003a) U-Pb zircon and monazite age constraints on granulite-facies metamorphism and deformation in the Strangways Metamorphic Complex (central Australia) - *Contributions to Mineralogy and Petrology* **145**, 406-423. DOI: 10.1007/s00410-003-0460-3
- 9) **A. Möller**, N.J. Post & B.J. Hensen (2002b) Crustal residence history and Grt Sm-Nd ages of high-grade metamorphic rocks from the Windmill Islands, East Antarctica – *International Journal of Earth Science / Geologische Rundschau* **91**, 993-1004.
- 8) **A. Möller**, P.J. O'Brien, A. Kennedy & A. Kröner (2002a) Polyphase zircon in ultrahigh-temperature granulites (Rogaland, SW Norway): constraints for Pb diffusion in zircon - *Journal of metamorphic Geology* **20**, 727-740.
- 7) M. Ballèvre, **A. Möller** & B.J. Hensen (2000) Exhumation of the lower crust during crustal shortening: an Alice Springs (380 Ma) age for a prograde amphibolite facies shear zone in the Strangways Metamorphic Complex (central Australia) - *Journal of metamorphic Geology* **18**, 737-748.
- 6) **A. Möller**, K. Mezger & V. Schenk (2000) U-Pb dating of metamorphic minerals: Pan-African metamorphism and prolonged slow cooling of high-pressure granulites in Tanzania, East Africa – *Precambrian Research* **104**, 123-147.
- 5) F. Bruhn, **A. Möller**, S.H. Sie & B.J. Hensen (1999) U-Th-Pb chemical dating of monazites using the proton microprobe – *Nuclear Instruments and Methods in Physics Research, Series B* **158**, 616-620.
- 4) **A. Möller**, K. Mezger & V. Schenk (1998) Crustal age domains and the evolution of the continental crust in the Mozambique Belt of Tanzania: combined Sm-Nd, Rb-Sr, and Pb-Pb isotopic evidence - *Journal of Petrology* **39**, 749-783.3) P. Appel, **A. Möller** & V. Schenk (1998) High-pressure granulite facies metamorphism in the Pan-African belt of eastern Tanzania: P-T-t evidence against granulite formation by continent collision - *Journal of metamorphic Geology* **16**, 491-509.
- 2) **A. Möller**, K. Mezger, P. Appel & V. Schenk (1995) Evidence for a 2 Ga old subduction zone: eclogites in the Usagaran Belt of Tanzania - *Geology* **23**, 1067-1070.
- 1) M. Isenbeck-Schröter, U. Döring, **A. Möller**, J. Schröter & G. Mattheß (1993) Experimental approach and simulation of the retention processes limiting orthophosphate transport in groundwater - *Journal of Contaminant Hydrology* **14**, 143-161.

Conference Proceedings

- 1) Sarifakioglu, E., Dilek, Y., Sevin, M., Pehlivan, Ş., Kandemir, Ö., **Möller, A.**, Bayanova, T., Uysal, I., Keles, M. (2017) Permo–Triassic and Liassic Tethyan oceanic tracts within the Pontide Belt along the Southern Margin of Eurasia, Northern Anatolia – Proceedings of the IGCP649 workshop, Diamonds and Recycled Mantle, Havana (Cuba) (04/03-04/14/17), *Acta Geologica Sinica* 91, Suppl. 1, p. 33-34.

Articles in Books

- 2) D. Rammilmair, M. Wilke, K. Rickers, R.A. Schwarzer, **A. Möller** & A. Wittenberg (2006) Chapter 5.6 Geology, Mining, Metallurgy - In: B. Beckhoff, B. Kanngießer, N. Langhoff, R. Wedell & H. Wolff (eds.) *Handbook of Practical X-Ray Fluorescence Analysis*. Springer, Berlin.
- 1) P. Appel, **A. Möller**, V. Schenk & S. Muhongo, (1993) Granulite facies metamorphism and P-T evolution in the Mozambique Belt of Tanzania - In: U. Thorweihe & H. Schandelmeier (eds.): *Geoscientific Research in NE Africa*, 171-175.

Reviewed reports

- 3) **A. Möller**, N.J. Post & B.J. Hensen (2000) Sm-Nd isotopic evidence for the Early Proterozoic / Late Archaean crustal evolution of the Windmill Islands, East Antarctica – *Centre for Isotope Studies Research Report* (1995-2000), 1-7.
- 2) N.J. Post, **A. Möller** & B.J. Hensen (2000) Garnet Sm-Nd age constraints in the Windmill Islands, East Antarctica: the problem of monazite inclusions in dating high grade metamorphism – *Centre for Isotope Studies Research Report* (1995-2000), 7-10.
- 1) M. Ballèvre, B.J. Hensen & **A. Möller** (1999) Granulite-facies rocks from the Strangways Metamorphic Complex and crosscutting, amphibolite-facies, shear zones – In: M. Hand, J. Mawby, J.A. Miller, Ballèvre, M., B.J. Hensen, **A. Möller** & I.S. Buick: Tectonothermal evolution of the Harts range and Strangways Range Region, eastern Arunta Inlier, central Australia. Specialist Group in Geochemistry, Mineralogy, and Petrology, *Field Guide No. 4, Geological Society of Australia*, 5-10.

Other reports

- 3) **A. Möller** (2009) Data report on laser-ablation trace element determinations in human skin – Report for KU Medical school cooperation
- *2) S. Schmitz, **A. Möller**, M. Wilke, W. Malzer, B. Kanngießer, R. Bousquet, S. Schefer (2008) 3D Synchrotron radiation X-ray fluorescence chemical U-Th-Pb dating of monazite – Yearly report to the Berlin Synchrotron (BESSY)
- *1) S. Schmitz, M. Wilke, **A. Möller**, R. Bousquet, S. Schefer W. Malzer, B. Kanngießer, (2007) 3D Micro SRXRF on monazite (CePO₄) for in-situ chemical dating – Yearly report to the Berlin Synchrotron (BESSY).

Invited Talks:

- 37) Seminar, **Universität Potsdam, Institut für Erd- und Umweltwissenschaften** (4/21/2017) U-Pb dating of accessory minerals by laser ablation ICP-MS: from granulites to bone beds and paleosols
- 36) Seminar, **Helmholtz-Zentrum Potsdam, Deutsches GeoForschungsZentrum GFZ, Section 3.1** (3/16/2017) Tricky business: pinning down an ultra high temperature (UHT) granulite event without peak condition zircon growth
- 35) Colloquium, Institute for Mineralogy, **Karl-Franzens Universität Graz** (3/14/2017) The metamorphic history of the Gruf Complex: Permian or Alpine ultra high temperature (UHT) event?
- 34) Petrology Seminar, Institute of Geosciences, **Université de Lausanne**, Switzerland (11/29/2016) A major Proterozoic terrane boundary in North America: combined O₂ - Lu/Hf - U/Pb analyses on magmatic zircon
- 33) Colloquium, Institute of Geosciences, **Mugla University**, Turkey (11/25/2016) Applications of accessory mineral U-Pb chronology to crustal processes: from the lower crust to sedimentary basins

- 32) Colloquium, Institute of Geosciences, **Université de Lausanne**, Switzerland (11/14/2016) Combined U-Pb chronology and microdomain thermobarometry of the Gruf Complex: solving an Alpine enigma
- 31) **31st Nordic Geological Winter Meeting**, Lund (Sweden) (1/8/14-1/10/14) Micro- to macroscale correlation of metamorphic and deformation events with in situ U-Pb dating and thermometry –
- 30) Colloquium, Institute of Geosciences, **University of São Paulo**, Brazil (11/12/2013) Timing and conditions of Alpine metamorphism in the Gruf Complex: a short UHT event caused by slab breakoff
- 29) OUTREACH: **Cañon City Geology Club, Cañon City, CO** (06/11/2012) The hottest rocks in the European Alps (Gruf Complex, N Italy): Paleogene or Permian ultra high temperature metamorphism?
- 28) Colloquium, Institute of Geosciences, **Christian-Albrechts-Universität zu Kiel**, Germany, 30. Jan. 2012: Chronologie krustaler Prozesse: von der Unterkruste zum Sedimentbecken
- 27) Department of Geology, **University of Oklahoma**, Norman, OK, USA (12/01/2011) Dating ancient mountain belts by ion microprobe and laser-ablation microanalysis or: shooting smaller holes with bigger guns
- 26) Department of Geology, **University of Tulsa**, OK, USA, (09/28/2011) Work small to think big: understanding orogenic processes through micro-analysis
- 25) Department of Geology, **University of Missouri**, Columbia, MO, USA (02/18/2011) When less is more: *in-situ* analysis: from micro- to orogen- scale.
- 24) **AGU Fall meeting**, San Francisco (12/2010) Linking trace element characteristics to U-Pb ages of accessory minerals by in-situ analyses: metamorphic zircon growth and modification
- 23) **Goldschmidt conference**, Knoxville, TN (06/2010) Bane or boon of mineral alteration: petrochronology of fluid- and deformation-related events.
(prepared and distributed, but not given, due to family health issues).
- 22) OUTREACH: **Cañon City Geology Club, Cañon City, CO**, (06/2009) Zircon: keeping good time, from mountain to ocean.
- 21) **AGU Spring Joint Meeting**, Toronto (05/2009) Accessory mineral geochronology and trace element fingerprinting of metamorphic processes.
- 20) Department of Geology, **Kansas State University**, Manhattan, USA (03/05/2009) Linking petrology and U-Pb geochronology by *in-situ* analysis: from micro- to orogen- scale
- 19) Department of Geology, **The University of Kansas**, Lawrence, USA (03/2007) From microtexture to orogen: linking petrology and geochronology by *in-situ* analysis
- 18) **Goldschmidt conference**, Melbourne (08/2006) In-situ U-Pb dating and geochemical constraints on UHT metamorphism in the Brasilia fold belt
- 17) Institute of Geosciences, **University Greifswald** (06/2006) Age and duration of orogenic processes: advances in petrology and geochronology by in-situ analyses
- 16) Geoscience Colloquium, **Christian-Albrechts-Universität zu Kiel** (05/2006) Dates and rates of orogenic processes: advances in geochronology by in-situ observation and analysis
- 15) Geoscience seminar (informal), Department of Geosciences, **University of Edinburgh** (03/2006) Zircon growth and modification during high grade metamorphism
- 14) **Metamorphic studies group meeting**, Research in Progress, **Cambridge** (03/2006) Keynote: Time for Metamorphism: linking in-situ analyses of zircon and rutile in granulites to the P-T path.
- 13) Geoscience Colloquium, **Technical University Freiberg** (01/2006) From thin section to P-T-t path: combination of metamorphic petrology and in-situ U-Pb dating
- 12) Geoscience Colloquium, **Free University Berlin** (06/2005) Rates from dates: combining petrology and geochronology in high-grade metamorphic rocks
- 11) **Goldschmidt Conference**, Moscow (Idaho) (05/2005) **Keynote lecture**: Constraints on age and duration of metamorphic events from in-situ U-Pb dating and geochemical characterization of zircon
- Lecture series for the **Austrian Mineralogical Society** (01/2005) Combining petrology and U-Pb geochronology to date metamorphic events: from the macro- to the microscale
- 10) **Innsbruck**, Institute for Mineralogy.
- 9) **Salzburg**, Institute for Mineralogy.
- 8) **Graz**, Institute for Mineralogy.
- 7) **Vienna**, Department of Geosciences.

- 6) Department of Mineralogy, **University of Bonn** (07/2004) Combination of petrology and geochronology: the key to understanding orogenic processes
- 4) **AGU Spring Meeting**, Montreal (05/2004) Advances in zircon geochronology: understanding zircon growth and modification during metamorphism.
- 3) Colloquium Mineralogical Institute, **University of Heidelberg** (05/2001) Micro- and in-situ-methods for the dating of metamorphic and tectonic processes
- 2) Institute for Mineralogy, Petrology and Geochemistry, **University of Tübingen** (07/1999) Sm-Nd and U-Pb investigations to date crust formation, metamorphism and deformation
- 1) Mineralogical Colloquium, **University of Würzburg** (07/1994) Petrology and age relationships of eclogites and high-pressure granulites in Tanzania

Conference abstracts: first author:

- 59) **Möller, A.**, Premo, W.R., Baumgartner, L., Siron, G., Kooijman, E., Kelly, N.M. (2017) A major Proterozoic terrane boundary in North America: combined O₂ - Lu/Hf - U/Pb analyses on magmatic zircon – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49 (10/22/17-10/25/17)
- 58) **Möller, A.**, Rocholl, A., Kamenov, G., Mueller, P. (2017) Timing and nature of crust formation in the East African Orogen during the assemblage of Gondwana: clues from zircon U-Pb, Hf and oxygen isotopes – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49 (10/22/17-10/25/17)
- 57) **Möller, A.**, Oalman J., Bousquet, R. (2016) Unravelling the P-T-t evolution of the Gruf Complex by in situ accessory mineral dating and thermometry combined with P-T modeling of microdomains – EMC meeting, Rimini (Italy) (09/11/14-09/15/16)
- 56) **Möller, A.**, Kraus, K., Herms, P., Appel, P., Raase, P. (2014) In situ rutile petrochronology: texture-related T, Paleoproterozoic inheritance and a Pan-African overprint in the oldest subduction-related eclogites, Usagaran Orogen, Tanzania – AGU Fall meeting, San Francisco, CA (USA) (12/15/14-12/19/14)
- 55) **Möller, A.**, Oalman J., Savage, J.A., Bousquet, R. (2014) Micro- to macroscale correlation of metamorphic and deformation events with in situ U-Pb dating and thermometry – 31st Nordic Geological Winter Meeting, Lund (Sweden) (1/8/14-1/10/14) (invited).
- 54) **Möller, A.**, Savage, J.A., Oalman J., Bousquet, R. (2013) Constraining the Alpine history of the high grade Gruf Complex, Central Alps, by correlating deformation, U-Pb zircon geochronology and composition of felsic dikes and leucosomes – GSA Annual Meeting, Denver, CO (USA), Geological Society of America Abstracts with Programs. v. 45, no. 7, p. 509 (10/27/13-10/30/13)
- 53) **Möller, A.**, Bousquet, R., Oalman J., Schmitz, S., Wilke, M., Nelson, D.R., Schefer, S. (2012) In-situ monazite geochronology of UHT granulites from the Gruf Complex, Central Alps – IGC 2012, Brisbane (Australia) (8/5/12-8/10/12)
- 52) **Möller, A.** (2010) Linking trace element characteristics to U-Pb ages of accessory minerals by in-situ analyses: metamorphic zircon growth and modification – AGU Fall meeting, San Francisco, December 2010 (invited)
- 51) **Möller, A.** (2010) Bane or boon of mineral alteration: petrochronology of fluid- and deformation-related events – Goldschmidt 2010, Knoxville (USA), Geochimica et Cosmochimica Acta, 74S, A. (invited) (prepared and distributed, but not given, due to family health issues).
- 50) **Möller, A.**, Moraes, R., Hellebrand, E., Kennedy, A. & Sudo, M. (2009) In-situ U-Pb and Ar-Ar age constraints on UHT metamorphism in the Brasilia fold belt: a case study for the dominance of post-peak zircon in high grade rocks– GSA Annual Meeting, Portland, OR (USA), Geological Society of America Abstracts with Programs, Vol. 41, No. 7, p. 485. (Poster)
- 49) **Möller, A.** (2009) Major and accessory phase control on trace element signatures of zircon during granulite facies metamorphism – Granulites & Granulites 2009, Czech Republic, July 2009.
- 48) **Möller, A.** (2009) Accessory mineral geochronology and trace element fingerprinting of metamorphic processes – AGU Spring Joint Meeting, Toronto, May 2009. (invited)
- 47) **Möller, A.** (2008) Excimer laser ICP-MS laboratory set-up and research at The University of Kansas – 7th International SF-ICP-MS meeting, New Brunswick, NJ, USA.

- 46) **Möller, A.**, Schmitz, S., Wilke, M., Nelson, D.R., Malzer, W., Kanngiesser, B., Schefer S., Bousquet, R. (2008) Sapphirine granulites of the Gruf Complex (Central Alps, N-Italy): In situ monazite dating by SHRIMP and confocal synchrotron μ -XRF – Goldschmidt 2008, Vancouver (Canada), *Geochimica et Cosmochimica Acta*, 72S, A643.
- 45) **Möller, A.**, Moraes, R., Hellebrand, E. (2007) REE distribution between zircon and orthopyroxene in granulites as a link between petrology and geochronology - Goldschmidt 2007, Köln (Germany), *Geochimica et Cosmochimica Acta*, 71S, A680.
- 44) **Möller, A.**, Hellebrand, E., Whitehouse, M.J. Cannat, M. (2006) Trace elements in young oceanic zircons - AGU, San Francisco (Poster).
- 43) **Möller, A.**, Moraes, R., Hellebrand, E., Kennedy, A. & Fuck, R.A. (2006) In-situ U-Pb dating and geochemical constraints on UHT metamorphism in the Brasilia fold belt - Goldschmidt 2006, Melbourne (Australia), *Geochimica et Cosmochimica Acta*, 70S. (invited)
- 42) **Möller, A.** & Kennedy, A. (2006) Extremely high Th/U in metamorphic zircon: in-situ dating of the Labwor Hills granulites - Goldschmidt 2006, Melbourne (Australia), *Geochimica et Cosmochimica Acta*, 70S. (Poster)
- 41) **Möller, A.**, Moraes, R., Hellebrand, E., Kennedy, A. & Fuck, R.A. (2006) Age and duration of the UHT event in the Brasilia Fold Belt: in-situ dating of zircon and rutile and equilibrium REE distribution between zircon and orthopyroxene – Granulites and Granulites 2006, Brasilia (Brazil)
- 40) **Möller, A.** (2006) Time for metamorphism: linking in-situ analyses of zircon and rutile in granulites to the P-T path - Geological Society of London, Metamorphic Studies Group Meeting, Cambridge (UK). (invited keynote)
- 39) **Möller, A.**, Moraes, R., O'Brien, P.J., Kennedy, A. & Kröner, A. (2005) Short-lived UHT metamorphism in the Brasília fold belt: in-situ zircon and rutile U-Pb dating - 19. Lateinamerika Kolloquium, Potsdam (Germany), *Terra Nostra*, **05/1**, 85-86.
- 38) **Möller, A.**, Moraes, R., O'Brien, P.J., Kennedy, A. & Kröner, A. (2005) Advances in geochronology: constraints on the duration of UHT metamorphic events by in-situ U-Pb dating of zircon and rutile - EGU Meeting, Vienna (Austria), *Geophysical Research Abstracts*, Vol. **7**, 07973.
- 37) **Möller, A.** (2005) Constraints on age and duration of metamorphic events from *in-situ* U-Pb dating and geochemical characterization of zircon - Goldschmidt 2005, Moscow, Idaho (USA), *Geochimica et Cosmochimica Acta*, **69S**, S02, A22.
- 36) **Möller, A.**, Nelson, D.R. (2005) Influence of matrix effects on U-Th-Pb dating of monazite by ion microprobe - Goldschmidt 2005, Moscow, Idaho (USA), *Geochimica et Cosmochimica Acta*, **69S**, S01, A15 (Poster).
- 35) **Möller, A.**, O'Brien, P.J., Kennedy, A., Kröner, A., Rhede, D. (2004) Geochronology of metamorphic events in Rogaland (SW Norway): synthesis and new results – DMG Tagung, Karlsruhe, *European Journal of Mineralogy* 16, Beiheft 1, 91. (Poster)
- 34) **Möller, A.** (2004) Advances in zircon geochronology: understanding zircon growth and modification during metamorphism - AGU Spring Meeting, Montreal, *Eos, Transactions AGU*, **85** (17), Joint Assembly Supplement, Abstract V22A-05 (invited).
- 33) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2004) Pre-600 Ma age of the Labwor Hills UHT-granulites constrained by in-situ U-(Th)-Pb dating: implications for the amalgamation of Gondwana - EGU Meeting, Nice (France), *Geophysical Research Abstracts*, Vol. **6**, 5663.
- 32) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2003) The use and abuse of Th-U ratios in the interpretation of zircon - EGU-EGS-GSA Meeting, Nice, *Geophysical Research Abstracts*, Vol. **5**, 12113.
- 31) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2002) Recognition of metamorphic zircon growth episodes and interpretation of U-Pb ages in high grade rocks, Penrose Conference, Beijing, Sept. 2002. (invited)
- 30) **Möller, A.** (2002) Crustal evolution and metamorphism in East Africa: review and new data - DMG Meeting, Hamburg, *European Journal of Mineralogy* 14, Beiheft 1, 112.
- 29) **Möller, A.**, O'Brien, P.J., Hellebrand, E., Mocek, B. & Kröner, A. (2002) Melt-host rock interaction and zircon growth during high grade metamorphism – Goldschmidt, Davos, *Geochimica et Cosmochimica Acta* 66, 15A, A518.

- 28) **Möller, A.** (2001) Using Y + REE systematics for the interpretation of zircon and monazites ages - DMG Meeting, Potsdam, *European Journal of Mineralogy* **13**, Beiheft 1, 123.
- 27) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2001) Diffusion in zircon under crustal UHT metamorphic conditions? - EUG XI, *Journal of Conference Abstracts* **6** (1), 677.
- 26) **Möller, A.**, Poller, U., Kennedy, A. & Kröner, A. (2001) Trace and rare earth element geochemistry of magmatic and metamorphic zircon: caveats for geochronological Interpretation based on Th/U and morphology only - EUG XI, *Journal of Conference Abstracts* **6** (1), 599.
- 25) **Möller, A.** (2000) Geochronologische Methoden als Hilfsmittel paläogeographischer Rekonstruktionen im Präkambrium - workshop: Aufbau und Entwicklung der präkambrischen Kruste Indiens, Bonn, Germany.
- 24) **Möller, A.** (2000) Microgeochronology: evaluation of TIMS and *in-situ* dating methods and their interpretation - DMG Meeting, Heidelberg, *European Journal of Mineralogy* **12**, Beiheft 1, 129.
- 23) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2000) Relating metamorphic textures to growth episodes and chemistry of zircon, and constraints on Pb diffusion: the Rogaland UHT granulites (SW Norway) - DMG Meeting, Heidelberg, *European Journal of Mineralogy* **12**, Beiheft 1, 130.
- 22) **Möller, A.** (2000) In-situ geochronology and mineral growth episodes: a tale of Proterozoic to Palaeozoic shearzone activity from the Strangways Metamorphic Complex, Central Australia - Goldschmidt 2000, Oxford, *Journal of Conference Abstracts* **5** (2), 713.
- 21) **Möller, A.**, Rickers, K. & Schenk, V. (2000) P-T conditions and ages of metamorphism in central Tanzania: tracking the Pan-African and Ubendian/Usagaran metamorphic belts - 18th Colloquium on African Geology, Graz, *Journal of African Earth Sciences* **30** (4A), 62-63.
- 20) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2000) U-Pb microgeochronology: relating metamorphic textures to growth phases and geochemistry of zircon: case studies on UHT Granulites - 31st International Geological Congress, Rio de Janeiro. (Poster)
- 19) **Möller, A.**, O'Brien, P.J., Kennedy, A. & Kröner, A. (2000) Diffusional Pb-loss from zircon during crustal UHT metamorphism? - 31st International Geological Congress, Rio de Janeiro. (Poster)
- 18) **Möller, A.**, Williams, I.S., Jackson, S. & Hensen, B.J. (1999) Palaeozoic deformation and mineral growth in the Strangways Metamorphic Complex: *in-situ* dating of zircon and monazite in a staurolite-corundum bearing shearzone - Geological Society of Australia, Specialist Group in Geochemistry, Mineralogy, and Petrology, *Orogenesis in the Outback*, Alice Springs, *Abstracts* **54**, 71-72. (Poster)
- 17) **Möller, A.**, Armstrong, R.A., Ballèvre, M., Hensen, B.J. & Mezger, K. (1999) Crustal growth, metamorphism & deformation in the Strangways Metamorphic Complex: a summary of recent U-Pb and Sm-Nd geochronology - Geological Society of Australia, Specialist Group in Geochemistry, Mineralogy, and Petrology, *Orogenesis in the Outback*, Alice Springs, *Abstracts* **54**, 69-70.
- 16) **Möller, A.**, Armstrong, R.A., Hensen, B.J. & Williams, I.S. (1999) Dating metamorphic events & deformation: SHRIMP U-Pb zircon examples from the Strangways Metamorphic Complex, Arunta Inlier, Australia - EUG X, *Terra abstracts* **11**, *Journal of Conference abstracts* **4** (1), 711.
- 15) **Möller, A.**, Williams, I.S., Jackson, S. & Hensen, B.J. (1998) In-situ U-Pb dating of zircon by SHRIMP and monazite by laser-ablation-ICP-MS: textural control and absolute timing of mineral growth in a staurolite-corundum bearing shearzone from the Arunta Inlier - Geological Society of London, *Metamorphic Studies Group Meeting, Abstracts*. (Poster)
- 14) **Möller, A.**, Hensen, B.J., & Armstrong, R.A. (1998) Dating high-grade metamorphism: SHRIMP results on zircons from melts and TIMS U-Pb monazite data for the Strangways Metamorphic Complex, Arunta Inlier - *14th Australian Geological Convention, Geological Society of Australia, Abstracts* **49**, 319.
- 13) **Möller, A.**, Pearson, N.J., Hensen, B.J. & Jackson, S. (1998) In-situ dating of monazites by Laser-ablation-ICP-MS: $^{207}\text{Pb}/^{206}\text{Pb}$ ages - *14th Australian Geological Convention, Geological Society of Australia, Abstracts* **49**, 320.
- 12) **Möller, A.**, Appel, P., Mezger, K. & Schenk, V. (1996) High-pressure granulite metamorphism prior to continental collision: P-T-t history of the Pan-African Belt in eastern Tanzania - Geological Society of Australia, Specialist Group in Geochemistry, Mineralogy, and Petrology, *Conference on Metamorphism*, Melbourne, *Abstracts* **42**, 36-37.

- 11) **Möller, A.**, Mezger, K. & Schenk, V. (1996) High-precision U-Pb dating of monazite and zircon in Pan-African granulites, Tanzania: constraints on the timing of metamorphism and implications for previous closure temperature estimates for Sm-Nd in garnet - DMG Meeting, Kiel, *European Journal of Mineralogy* **8**, Beiheft 1, 191. (Poster)
- 10) **Möller, A.**, Mezger, K. & Schenk, V. (1996) U-Pb and Ar-Ar geochronology of Pan-African high-pressure granulites in the Mozambique Belt of Tanzania: pre-collisional metamorphism and slow cooling - DMG Meeting, Kiel, *European Journal of Mineralogy* **8**, Beiheft 1, 192.
- 9) **Möller, A.**, Appel, P., Mezger, K. & Schenk, V. (1995) Subduction of oceanic crust at 2 Ga (Usagaran Belt, Tanzania) - EUG VIII, *Terra abstracts*, suppl. No.1 to Terra Nova **7**, 101.
- 8) **Möller, A.**, Mezger, K., & Schenk, V. (1994) Reconstruction of crustal genesis in a high-grade gneiss terrane using Sm/Nd-whole rock systematics and Pb-Isotopes of leached feldspar - Goldschmidt Conference, Edinburgh, *Mineralogical Magazine* **58A**, 621-622.
- 7) **Möller, A.**, Mezger, K., & Schenk, V. (1994) Crustal evolution of a high-grade gneiss terrane: evidence from Sm/Nd-Whole rock systematics and Pb-Isotopes of leached feldspar - DMG Meeting, Freiberg, *European Journal of Mineralogy* **6**, Beiheft 1, 181.
- 6) **Möller, A.**, Mezger, K., & Schenk, V. (1994) U-Pb dating of metamorphic minerals: age of metamorphism and cooling history of Panafrican granulites and Early Proterozoic eclogites in Tanzania - DMG Meeting, Freiberg, *European Journal of Mineralogy* **6**, Beiheft 1, 182.
- 5) **Möller, A.**, Appel, P., Schenk, V. & Muhongo, S. (1994) Metamorphic petrology of high-pressure granulites from the Mozambique Belt in Tanzania: evidence for an anti-clockwise P-T path - *IGCP 348, Proceedings of the International Geological Field Conference*, 109.
- 4) **Möller, A.**, Mezger, K. & Schenk, V. (1994) Age of granulite facies metamorphism in eastern Tanzania and constraints on cooling by U-Pb dating of metamorphic minerals - *IGCP 348, Proceedings of the International Geological Field Conference*, 110.
- 3) **Möller, A.**, Mezger, K. & Schenk, V. (1994) Crustal evolution of the Mozambique Belt in Tanzania: evidence from Sm/Nd whole rock systematics and Pb isotopes of leached feldspars - *IGCP 348, Proceedings of the International Geological Field Conference*, 111.
- 2) **Möller, A.**, Appel, P., Schenk, V., & Muhongo, S. (1993) Contrasting P-T paths of high-pressure granulites in Tanzania - EUG VII, *Terra abstracts*, suppl. No.1 to Terra Nova **5**, 405.
- 1) **Möller, A.**, Appel, P., Schenk, V., & Muhongo, S. (1992) Kontrastierende P-T Pfade von Hochdruck-Granuliten Ost-Tansanias - DMG Meeting, Tübingen, *European Journal of Mineralogy* **4**, Beiheft 1, 195.

Conference abstracts: not first author

- 115) Bidgoli, T.S., Wang, W., **Möller, A.**, Stockli, D.F. (2018) Detrital zircon geochronology, a novel tool for stratigraphic correlation of Late Mississippian-Early Pennsylvanian strata in southwestern Kansas and northwestern Arkansas – AAPG
- *114) Wang, W., Bidgoli, T.S., **Moeller, A.**, Stockli, D.F., Watney, L. (2017) Detrital zircon geo- and thermochronologic constraints on Late Mississippian-Early Pennsylvanian sediment transport and tectonics, southwestern Kansas and northwestern Arkansas – AGU Fall meeting, New Orleans, LA (USA) (12/11/17-12/15/17) # T11A-0450
- *113) Bunse, E., Graham, K. A., Ruffledt, C., Walker, J.D., **Möller, A.**, Tikoff, B. (2017) Beta Testing StraboSpot: Perspectives on mobile field mapping and data collection – AGU Fall meeting, New Orleans, LA (USA) (12/11/17-12/15/17) # IN11D-06
- 112) Ludvigson, G., **Möller, A.**, Joeckel, R.M., Blum, M., McLean, N. (2017) Uranium-lead ages of Cretaceous (Albian-Cenomanian) strata from the Rose Creek Escarpment of the cratonic margin of the Western Interior Basin – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49 (10/22/17-10/25/17)
- 111) Roberts, J.A., Olcott-Marshall, A., McLean, N., **Möller, A.**, Baker, G. (2017) Positive impact of classroom transformation on inequality in DFW rates (“D” or “F” grade, or Withdraw) for first-time freshman, females, and underrepresented minorities in two introductory geology courses – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49 (10/22/17-10/25/17)

- *110) Graham, K.A., Walker, J.D., Bidgoli, T.S., **Möller, A.** (2017) Timing and drivers of exhumation in the hinterland of the North American cordillera from detrital zircon U-Pb and (U-Th)/He double-dating – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49 (10/22/17-10/25/17)
- *109) Campbell, C., Taylor, M.H., Licht, A., Mueller, M., **Möller, A.**, McLean, N., Ocakoglu, F. Coster, P., Metais, G., Beard, C. (2017) Tectonic evolution of the Izmir-Ankara Suture Zone in northwest Turkey using zircon U-Pb geochronology and zircon Lu-Hf isotopic tracers – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49 (10/22/17-10/25/17)
- *108) Rader, M., Kempton, P., **Möller, A.** (2017) Evidence for the timing of Post-Laramide magmatic underplating in the Southern Basin and Range: New zircon geochronology of granulite xenoliths from the Geronimo Volcanic Field, SE Arizona – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49, #301118 (10/22/17-10/25/17)
- 107) Gürsu, S., **Möller, A.** (2017) Petrogenetic features of late Neoproterozoic eclogites, metagabbroic and garnet amphibolite dikes in the Menderes Massif, western Turkey: implications for Cadomian crustal evolution within the Pan-African mega-cycle – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49, #297802 (10/22/17-10/25/17)
- 106) Gürsu, S., Göncüoğlu, M.C., Köksal, S., **Möller, A.** (2017) From magmatic arc to post-collisional back arc setting in the Tauride-Anatolide Platform (TAP): overview of the Cadomian basement rocks in Turkey – GSA Annual Meeting, Seattle (USA), Geological Society of America Abstracts with Programs, v. 49, #297810 (10/22/17-10/25/17)
- 105) Gürsu, S., **Möller, A.**, Mueller, P., Köksal, S., Kamenov, G., Göncüoğlu, M.C. (2017) Nd, Pb and Hf isotope provenance of Glacial Granitic Pebbles in Late Ordovician Diamictites of the Taurides, S Turkey – Goldschmidt Conference, Paris (France) (8/13/17-8/18/17)
- 104) Wohlgemuth-Ueberwasser, C.C., Schüssler, J., von Blanckenburg, F., **Möller, A.** (2017) Matrix-independent baddeleyite U/Pb geochronology by femtosecond-LA-ICP-MS? – Goldschmidt Conference, Paris (France) (8/13/17-8/18/17)
- 103) Ludvigson G.A., Gonzalez, L.A., Suarez, M. Joeckel, R.M., **Möller, A.**, Ross, J. (2017) Aptian-Albian Terrestrial Paleoclimatology of the North American Western Interior Basin – 10th International Symposium on the Cretaceous, Vienna (Austria) (08/21-08/26/17)
- 102) Herms, P., Giehl, C., Appel, P., **Möller, A.**, Raase, P. (2015) Polymineralic inclusions indicating a melting event in eclogite-facies rocks from a 2Ga old subducted oceanic crust. – ECROFI 2017 meeting, Nancy (France), (6/23/15-6/29/17)
- *101) Oalman J., **Möller, A.**, Bousquet, R. (2017) Combining in situ LA-ICP-MS U-Pb monazite dating and thermobarometric modeling confirms an Alpine UHT event in the Gruf Complex of the Central Alps – European Geosciences Union General Assembly, Vienna (Austria), *Journal of Conference Abstracts* (1) (04/23-04/28/17) POSTER
- 100) Staisch, L., Sherrod, B., Kelsey, H. Blakely, R., **Möller, A.**, Styron, R. (2017) Miocene to present deformation in the Yakima Fold Province and implications for earthquake hazards in central Washington State – European Geosciences Union General Assembly, Vienna (Austria), *Journal of Conference Abstracts* (1) (04/23-04/28/17)
- 99) Turner, E. Smith, J.J., **Möller, A.**, Otto, R.E., Joeckel, R.M., Tucker, S.T. (2017) Preliminary U-Pb zircon ages of the Ashfall Fossil Beds in northeastern Nebraska: Geochronology of a Konservat-Lagerstätten in the northern High Plains Conference: – 149th Annual Meeting of the Kansas Academy of Science, Hays, KS (USA), Transactions of the Kansas Academy of Science, 120 (1-2): 122 (04/07-04/08/17)
- 98) Smith, J.J., Ludvigson, G.A., Layzell, A.L., **Möller, A.**, Turner, E. (2017) Recent advances toward developing of a U-Pb zircon chronostratigraphy of Cenozoic strata in the central High Plains aquifer of Kansas – 149th Annual Meeting of the Kansas Academy of Science, Hays, KS (USA), Transactions of the Kansas Academy of Science, 120 (1-2): 122 (04/07-04/08/17)
- 97) Sarifakioglu, E., Dilek, Y., Sevin, M., Pehlivan, Ş., Kandemir, Ö., **Möller, A.**, Bayanova, T., Uysal, I., Keles, M. (2017) Permo–Triassic and Liassic Tethyan oceanic tracts within the Pontide Belt along the Southern Margin of Eurasia, Northern Anatolia – IGCP649 workshop, Diamonds and Recycled Mantle, Havana (Cuba) (04/03-04/14/17)

- *96) Turner, E. Smith, J.J., **Möller, A.**, Otto, R.E., Joeckel, R.M., Tucker, S.T. (2017) The first U-Pb zircon ages for the Ashfall Fossil Beds and Grove Lake volcanic deposits in Nebraska: two different Yellowstone hotspot track sources – GSA South Central Meeting, San Antonio, TX (USA), Geological Society of America Abstracts with Programs, v. 49, #289615 (03/13/17-03/14/17)
- 95) Smith, J.J., Ludvigson, G.A., Layzell, A.L., Möller, A., Turner, E. (2017) Scientific drilling in Cenozoic strata of the central high plains aquifer: a developing U-Pb zircon chronostratigraphy in Western Kansas – GSA South Central Meeting, San Antonio, TX (USA), Geological Society of America Abstracts with Programs, v. 49, #289486 (03/13/17-03/14/17)
- 94) Ludvigson, G.A., Gonzalez, L.A., Suarez, M., **Möller, A.** (2016) Terrestrial records of carbon isotope excursions associated with Aptian-Albian (Cretaceous) OAEs – SEPM Research Conference, Oceanic Anoxic Events (OAEs), Austin, TX (10/31-11/7/16)
- 93) Ludvigson G.A., Gonzalez, L.A., Joeckel, R.M., **Möller, A.**, Ross, J. (2016) Exploring the frontier of terrestrial Aptian-Albian (Cretaceous) C-isotope stratigraphy and paleoclimatology: A tribute to the scientific career of Michael A. Arthur – GSA Annual Meeting, Denver (USA), Geological Society of America Abstracts with Programs, v. 48, #281223 (09/25/16-09/28/16)
- *92) Keevil, H.A. Monecke, T., Goldfarb, R., Collins, G., Feng, T., Baker, T., Kelly, N.M., **Möller, A.** (2016) Magmatic-hydrothermal deposits of the Hunjiang Basin, Jilin Province, NE China, with a focus on the White Mountain breccia-hosted gold deposit – GSA Annual Meeting, Denver (USA), Geological Society of America Abstracts with Programs, v. 48, #285526 (09/25/16-09/28/16)
- *91) Graham, M.A., **Möller, A.**, Ludvigson, G.A., Hallman, J.A., Smith, J.J. (2016) Trace element fingerprinting of Yellowstone Hotspot Track (YHT) major eruptions in volcanic ashes from High Plains strata in Kansas – GSA Annual Meeting, Denver (USA), Geological Society of America Abstracts with Programs, v. 48, #281965 (09/25/16-09/28/16)
- *90) Hallman, J.A., McLean, N., **Möller, A.**, Ludvigson, G.A., Smith, J.J., Sitek, B.C. (2016) Spatial and temporal patterns of Ogallala Formation deposition revealed by U-Pb zircon geochronology – GSA Annual Meeting, Denver (USA), Geological Society of America Abstracts with Programs, v. 48, #279868 (09/25/16-09/28/16)
- *89) Tyrrell, J.P., Bidgoli, T.S., **Möller, A.**, Stockli, D.F., Cramer, B.D., Walker, D. (2016) Challenges associated with the conodont (U-Th)/He method: A case study from the Mormon Mountains, Tule Spring Hills, and Beaver Dam Mountains, southeastern Nevada and southwestern Utah – GSA Annual Meeting, Denver (USA), Geological Society of America Abstracts with Programs, v. 48, No. 7 (09/25/16-09/28/16)
- 88) Joeckel, R.M., Tucker, S.T., Ludvigson, G.A., **Möller, A.**, Field, H.L., Korus, J.T. (2016) The emerging deeper understanding of Cenozoic Stratigraphy in Nebraska and the power of interstate cooperation – GSA Annual Meeting, Denver (USA), Geological Society of America Abstracts with Programs, v. 48, (09/25/16-09/28/16)
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- 73) Walker, J.D., Tikoff, B., Newman, J., Good, J., Ash, J., Michels, Z.D., Andrew, J.E., Williams, R.T., **Möller, A.**, Richard, S.M. (2015) Cyberinfrastructure for structural geology and tectonics – GSA Annual Meeting, Baltimore (USA), Geological Society of America Abstracts with Programs, v. 47, (11/1/15-11/4/15)
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- 57) Feldman, J.D., **Möller, A.**, and Walker, J.D. (2014) New CA-TIMS and LA-ICP-MS analyses of GJ-1, Plesovice, and FC1 reference materials – AGU Fall meeting, San Francisco, CA (USA) (12/15/14-12/19/14)
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- *55) Charnock, R., Kuiper, Y.D., **Möller, A.**, Buchwaldt, R., Hepburn, J.C., 2014. A structural and U-Pb detrital zircon geochronology investigation of selected units in the eastern Merrimack Belt: Implications for post-Acadian deformation, eastern Massachusetts – 3rd biennial Structural Geology and Tectonics Forum, Colorado School of Mines (6/16/14-6/18/14)
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- *42) Savage, J., Oalmann, J., **Möller, A.**, Bousquet, R. (2012) Magmatic activity and crustal melting during orogenesis: Laser-ablation U-Pb geochronology of dike and leucosome generations in granulites of the Gruf Complex, Central Alps – AGU, San Francisco, CA (USA) (Poster)
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- 11) Köksal, S., Toksoy-Köksal, F., Göncüoğlu, M.C. & **Möller, A.** (2005) Tracing magmatic history from zircons of the S- and H- type granitoids in the Ekecidag Intrusive Suite (Central Anatolia, Turkey) - IESCA-International Earth Sciences Colloquium on the Aegean Regions meeting (4-7 October 2005, Izmir Turkey).
- 10) Kriegsman, L.M., **Möller, A.** & Nelson, D.R. (1999) P-T-t-D path and detrital zircon geochronology of the Northampton Block, Western Australia: a Meso-Proterozoic, collision-induced foreland rift - EUG X, *Terra abstracts* 11, *Journal of Conference abstracts* 4 (1), 433.
- 9) Herms, P., **Möller, A.** & Schenk, V. (1999) Fluid inclusions in 2 Ga old eclogites of the Usagaran Belt, Tanzania - ECROFI XV, Potsdam, *Terra Nostra* 99, 147-148.
- 8) Ballèvre, M., **Möller, A.** & Hensen, B.J. (1998) An Alice Springs (380 Ma) age for a prograde amphibolite-facies shear zone in the Strangways Metamorphic Complex, Arunta Block - *14th Australian Geological Convention, Geological Society of Australia, abstracts* 49, 19.
- 7) Bruhn, F., Sie, S.H., **Möller, A.** & Hensen, B.J. (1998) U-Th-Pb Chemical dating of monazites using the proton microprobe - 6th International Conference on Nuclear Microprobe Technology and Applications, Spier Estate, Capetown, South Africa.
- 6) Appel, P., Mezger, K., **Möller, A.** & Schenk, V. (1995) Identification of three terranes in the complex Mozambique belt of Tanzania - EUG VIII, *Terra abstracts*, suppl. No.1 to Terra Nova, 7, 109.
- 5) Schenk, V., Appel, P., **Möller, A.** & Rickers, K. (1995) Early Proterozoic MORB-type eclogites and possible remnants of a paired metamorphic belt in central Tanzania - *Bochumer geologische und geotechnische Arbeiten* 44, 195.
- 4) Herms, P., Appel, P., **Möller, A.** & Schenk, V. (1995) Fluid inclusion investigations on the Uluguru granulite complex, Tanzania - In: Barton, J.M. (ed.): *Centennial Geocongress, South Africa: Johannesburg* 2, 726-729.
- 3) Appel, P., **Möller, A.**, Schenk, V. & Muhongo, S. (1993) Granulite Facies Metamorphism in the Pan-African Mozambique Belt of Tanzania - *16th Colloquium on African Geology, Swaziland, Extended Abstracts Vol. I*, 19-21.
- 2) Schenk, V., **Möller, A.**, Appel, P. & Muhongo, S. (1993) Metamorphic Conditions and the P-T Path of High-Pressure Rocks from the Usagaran Mountains of Tanzania - *16th Colloquium on African Geology, Swaziland, Extended Abstracts Vol. II*, 314-316.

- 1) Appel, P., **Möller, A.**, Schenk, V. & Muhongo, S. (1992) Verbreitung und Bildungsbedingungen von Hochdruck-Granuliten im panafrikanischen Mozambik-Gürtel von Tansania - DMG Meeting, Tübingen, *European Journal of Mineralogy* **4**, Beiheft 1, 6.

Other Professional Presentations

- 12) Campanaro, B.C., Kamola, D.L., Blum, M.D., **Möller, A.** (2016) Hydrodynamics of fluvial strata in the Cretaceous Williams Fork Formation, **KU GHawk symposium**, 09/16/2016 POSTER
- 11) Roberts, J.A., McLean, N., Baker, G.S., **Möller, A.** (2016) Impact of classroom transformation on gender inequality in DFW rates ("D" or "F" grade or Withdraw), **KU Center for Teaching Excellence Symposium**, 05/06/2016 POSTER
- *10) Hallman, J., McLean, N.M., **Möller, A.**, Ludvigson, G.A., Smith, J.J. (2015) Paleosols and volcanic ashes as marker beds in the Ogallala Formation, Western Kansas, **KU GHawk symposium**, 10/02/2015 POSTER
- *9) Oalmann, J., **Möller, A.**, Bousquet, R. (2015) Zircon petrochronology constrains retrograde metamorphism and dike emplacement in the Gruf Complex, **KU GHawk symposium**, 10/02/2015 POSTER
- 8) **Möller, A.**, Schneider, B. (2015) Evaluating the importance of peer-review feedback for scientific writing skills, **KU Center for Teaching Excellence Symposium**, 05/07/2015 POSTER
- *7) Sitek, B.C., Berndt, T.R., Clayton, J.K., Walker, J.D., **Möller, A.**, (2014) Examining the nature of a Proterozoic geological boundary using microstructural evidence, **KU GHawk symposium**, 11/21/2014 POSTER
- *6) T.R. Berndt*, J.K. Clayton, B. Sitek, **Möller, A.**, (2014) Ductily deformed pegmatites and an amphibole-bearing leucosome: Constraints on geologic events at Precambrian boundaries using structural marker units, Blue Ridge, Colorado, **KU GHawk symposium**, 11/21/2014 POSTER
- *5) Oalmann, J., **Möller, A.**, Bousquet, R. (2014) Linking zircon growth zones to P-T conditions: An example from the Gruf Complex, Central Alps, **KU GHawk symposium**, 11/21/2014 POSTER
- *4) Oalmann, J., **Möller, A.**, Bousquet, R. (2012) In situ U-Pb dating of rutile in UHT granulites from the Gruf Complex, European Central Alps, **KU GHawk symposium**, 09/21/2012 POSTER
- *3) Savage, J., Oalmann, J., Bousquet, R., **Möller, A.** (2012) Dike emplacement constrains timing of deformation in the Central Alps, **KU GHawk symposium**, 09/21/2012 POSTER
- *2) Oalmann, J., **Möller, A.**, Bousquet, R.: In situ U-Pb dating of rutile in UHT granulites from the Gruf Complex, European Central Alps, **KU GHawker symposium**, 09/2011 POSTER
- *1) Miller, J. Stockli, D.F., **Möller, A.**, Oalmann, J.: Zircon U-Pb-He double dating of northern alpine foreland basin, Switzerland – implications for orogenic dynamics and subsidence, **KU GHawker symposium**, 09/2011 ORAL

Monographs

Dr. rer. nat. Dissertation, February 1996

Pan-African granulites and Early Proterozoic eclogites in the Precambrian basement of Eastern Tanzania: P-T-t history and crustal evolution of the complex Mozambique Belt

Diplomarbeit (equiv. M. Sc. Thesis), February 1990

Part I: Weichselzeitliche Ablagerungen einer Eisrandlage südlich von Wankendorf
(Weichselian ice-rim deposits south of Wankendorf)

Part II: Transport- und Sorptions-Verhalten von Phosphat in kalkfreien Sanden
(Transport- and sorption behaviour of phosphate in non-calcareous sands)

Appointments / Service to the scientific community

ASSOCIATE EDITOR

Mineralogy and Petrology (since March 2007)

GUEST EDITOR for **Chemical Geology** special volume: Jung & Möller (eds.): Crustal dynamics: links between geochronology and petrology – *Chemical Geology* 241 (2007)

GRANT & SCHOLARSHIP REVIEWS

- National Science Foundation, USA
- NSERC, Canada
- Deutsche Forschungsgemeinschaft (German science foundation), Germany
- Israeli Science Foundation, Israel
- National Geographic Society, USA
- Schweizerischer Nationalfonds (Swiss National Science Foundation), Switzerland
- ÖAW-NIF (Austrian Academy of Sciences, National and International Research Programs), Austria
- FWF (Austrian Science Fund), Austria
- National Research Foundation, South Africa
- National Science Centre NCN, Poland
- Beate-Mocek-Prize, German Mineralogical Society (initiator and permanent committee member)
- Member of local selection committee for DAAD (German Academic Exchange Agency) scholarships for Australia (Potsdam, 2004)

FACULTY PROMOTION EXTERNAL REVIEWER

- Austrian University, 2017

EXTERNAL EXAMINER

- Canadian MS thesis: Matthew Scott, Memorial University of Newfoundland, 23. Sept. 2017
- Swiss Ph.D. thesis: A. Galli, ETH Zurich, 23. Oct. 2010
- Swedish Ph.D. thesis: A. Rimsa, Stockholm University, 9. March 2007
- Australian Ph.D. thesis: A. Storkey, La Trobe University, 2005.

PEER-REVIEWS OF ca. 50 MANUSCRIPTS FOR 22 SCIENTIFIC JOURNALS (SINCE 1996):

- | | |
|---|--|
| • American Mineralogist | • Journal of African Earth Sciences |
| • AGU Books | • Journal of Geology |
| • Chemie der Erde | • Journal of Metamorphic Geology |
| • Chemical Geology | • Journal of Petrology |
| • Computers & Geoscience | • Journal of the Geological Society London |
| • Contributions to Mineralogy and Petrology | • Lithos |
| • Geological Magazine | • Mineralogical Magazine |
| • Geology | • Mineralogy and Petrology |
| • Geosphere | • Precambrian Research |
| • Gondwana Research | • Terra Nova |
| • International Journal of Earth Sciences | • Tectonophysics |

CONVENER:

- Goldschmidt 2015, Prague (Czech Republic), Session 16f: Quantitative Provenance Studies of Clastic Sedimentary Rocks
- GSA meeting, Denver, October 2013, session: Hot topics – understanding metamorphic processes in the middle to lower crust

- GSA meeting, Minneapolis, October 2011, session T36: Comprehensive data sets for the reconstruction of geological histories: Combining double and triple dating with geochemical fingerprinting
- AGU Fall Meeting 2010, San Francisco, Session V32:
Texture Controlled Geochronology: Linking petrography, mineral zoning and dating
- Goldschmidt 2008, Vancouver, Session 4e:
4D evolution of the continental crust: granulites to greenstones
- EGU 2005, Vienna VGP21: Linking metamorphism, geochronology, and petrology
- DMG Meeting 2004, Karlsruhe: Petrology and geochemistry of the crust
- DMG Meeting 2001, Potsdam: Analytical methods in Petrology

DEPARTMENTAL, COLLEGE, AND UNIVERSITY COMMITTEES (INCL. POSITION)

- KU CLAS Academic misconduct committee (on panel, since FT 2008)
- Supervisor for thin section research technician (since Aug. 2008)
- KU geology field camp committee (since 2010)
- KU undergraduate curriculum revision committee (since Sept. 2012)
- Organizer GHawk-Poster symposium (2012-2015; 2017-)

previous:

- Co-Editor GHawker (2011-2015)
- Learner outcome tracking for term papers in GEOL 512 (Spring 2012-2013)
- KU faculty search committee (thermochronology, FT 2012- ST 2013)
- KU teaching Post-doc search committee (ST 2013)

SHORT COURSES

- Co-Organizer, IQN short course 2003, Potsdam (Germany): Crustal growth episodes in time and space - geological, geochemical and geophysical features and characteristics
- Co-Organizer, IQN short course 2002, Potsdam (Germany): Subduction-collision processes: from ultrahigh pressure to ultralow temperature and from Archaean to present-day

OUTREACH ADVISING

- Scientific adviser to amateur geologist G. Engelhardt (2006-2007): petrography and microscopy of glacial erratic lower Cambrian sandstones of the baltic coast
- Adviser for high school intern: F. Krueger (2007)

Research Funding

Active grants and awards:

PI: KU Competition General Research Fund (GRF)

U-Pb dating of conodonts: testing a novel approach to thermochronology and chronostratigraphy

Total award amount: \$3,994.80 for 12 months.

Active from: 07/01/2017-06/30/2018

Research collaboration on grants and projects

with **Kansas Geological Survey:**

- **Dr. J.J. Smith, Dr. Greg Ludvigson**

NSF project (PI: Jon Smith jjsmith@ku.edu, Greg Ludvigson (Co-Principal Investigator), John Doveton (Co-Principal Investigator):

Funding from: NSF EAR : 1023285 Collaborative Research: Investigating Lithologic and Stratigraphic Controls on Hydrogeology in Neogene Strata of the Central High Plains Aquifer

Active: 10/01/2010-09/30/2015 Total Award Amount: \$296,000.00

Mineral separation and laser-ablation ICP-MS U-Pb dating to determine maximum age of deposition.

Total Amount received:

- **Dr. T.S. Bidgoli**

American Chemical Society Petroleum Research Fund project (PI: T.S. Bidgoli): Conodont thermochronology: Expanding the utility of the (U-Th)/He method to marine carbonates and shales

Active: 08/01/2017-07/31/2019 Total Award Amount: \$110,000

- **Dr. T.S. Bidgoli**

Visiting scholar research Wei Wang

- **Dr. T.S. Bidgoli & Prof. J.D. Walker** (KU Geology department)

MS graduate research of K. Graham

- Laser-ablation ICP-MS U-Pb dating of detrital zircon

with **Prof. T. Monecke, and PhD student H. Keevil (Colorado School of Mines, Golden, CO)**

- Laser-ablation ICP-MS U-Pb dating of magmatic zircon and for provenance analyses.

with **Prof. M. H. Taylor (The University of Kansas, KS) and MS graduate student C. Campbell**

- Geochronology of volcanosedimentary and igneous rocks in N Turkey

Mineral separation and laser-ablation ICP-MS U-Pb dating of magmatic zircon and for provenance analyses.

with **Dr. Noah McLean (University of Kansas)**

- Laser-ablation ICP-MS U-Pb dating of zircon, U-Th disequilibrium dating

with **Drs. Samuel Bowring and Jahan Ramezani (Massachusetts Institute of Technology, Cambridge, MA):**

- Laser-ablation ICP-MS U-Pb dating of zircon to determine ages of crystallization.

with **Dr. John Rovey and MS graduate student Grant Sporing (MSU)**

- Laser-ablation ICP-MS U-Pb dating of zircon for provenance analyses.

Total Amount received 2017: \$ 3,000

with **Dr. Pamela Kempton and undergraduate student Mikaela Rader (KSU)**

- Laser-ablation ICP-MS U-Pb dating of zircon on lower crustal xenoliths from the Geronimo Volcanic Field.

Previous grants and awards:

KU Department of Geology, Jan F. & Mary van Sant Geology Excellence Award

Total Award Amount: \$ 5,000 for 24 months

Active from: 06/01/2015-05/31/2017

University of Lausanne, Switzerland, Herbette Foundation Fellowship

Total Award Amount: ca. \$ 14,300 for 5 months

Active from: 07/12/2016-12/13/2016

PI: NATIONAL SCIENCE FOUNDATION, PETROLOGY & GEOCHEMISTRY, EAR: 0911633

Dating metamorphism with accessory minerals - integrated in-situ geochronology and trace element budgeting of metamorphic reactions

Total Award Amount: \$ 187,842 for 36 months.

Active from: 08/01/2009-07/31/2015

PI: KU Competition General Research Fund (GRF)

The influence of radiation damage on laser-ablation analyses of geological materials

Total award amount: \$ 7656 for 12 months.

Active from: 07/01/2012-06/30/2013

PI: KU Competition General Research Fund (GRF)

Provenance analysis in the Green River Basin, Wyoming: proof-of-concept for an improved, integrated petrographic and geochronological approach

Total award amount: \$ 7,656 for 12 months.

Active from: 07/01/2011-06/30/2012

BIG XII FELLOWSHIP: research visits to UT Austin in January and March 2013

Total Award Amount: \$ 2500

PI: Möller: DFG MO 905/4-1 (GERMAN SCIENCE FOUNDATION)

The influence of crystal chemistry and the problem of reverse discordance of ion microprobe U-Pb data on monazite (Co-PI: D.R. Nelson, Curtin University, Perth, Australia. Collaboration: D. Rhede, GFZ Potsdam; K. Mezger, Central Laboratory for Geochronology, Univ. Münster).

Total Award Amount: Euro 24,500 & Undergraduate research assistant for 18 months, (40hrs/month)

Start: August 2005; End: July 2008

PI: Möller: BESSY (Berlin synchrotron facility) GRANT (5 days Synchrotron time)

In-situ analysis of trace elements in accessory minerals (U-Th-Pb in monazite) by confocal Synchrotron-XRF analysis (Co-PI: M. Wilke (GFZ, Potsdam); collaboration: Dr. W. Melzer, Dr. Kanngiesser, Technical Univ. and BESSY synchrotron facility, Berlin).

Masters student project of S. Schmitz.

Total Award Amount: 5 shifts synchrotron time

Start: January 2007; End: December 2007

CO-PI: ESRF (EUROPEAN SYNCHROTRON RESEARCH FACILITY), GRENOBLE

Trace element diffusion in accessory minerals: implications for geothermochronology of metamorphic and igneous rocks

Total Award Amount: 18 shifts synchrotron time

Lead-PI: K. Rickers-Appel (DESY, Hamburg)

Co-PI's: B. Mocek (KU, Lawrence †), P. Appel (University Kiel, Kiel, Germany)

Previous research collaboration on grants (\$ amount received):

with **Dr. D. L. Kamola (The University of Kansas, KS) and MS student B. C. Campanaro**

- Mineral separation and laser-ablation ICP-MS U-Pb dating of zircon to determine maximum age of deposition and for provenance analyses.

Total Amount received 2016: \$ 2,120

with **Dr. Lydia Staisch (US Geological Survey, Seattle, Washington)** and **Prof. B. Sherrod (University of Washington)**

- USGS project on volcanic rocks in the Western US Cordillera

Mineral separation and laser-ablation ICP-MS U-Pb dating of zircon to determine maximum age of deposition and provenance.

Laser ICP-MS funds received 2015: \$ 2,120; 2016: \$ 4,585 = \$ 6,705

PI: Prof. S. Gürsu (Mugla University, Turkey) CO-PI: Dr. S. Köksal (Middle Eastern Technical University, Ankara, Turkey) Determination of the Petrogenetic and Geochronological Features of the Pre-Middle Cambrian Derik Volcanics (Mardin) in the Southeastern Anatolian Belt.

The collaboration is on zircon zoning studies and laser-ablation ICP-MS U-Pb dating.

Funded by grant from the Turkish Science foundation. TUBITAK-Scientific and Technical Research Council of Turkey (CAYDAG-Project No: 111Y326)

Total Amount received 2012: \$ 7,000

PI: Drs. Ender Sarifakioglu and Dogan Usta (Jeoloji Etutleri Dairesi, Ankara, Turkey)

Mineral separation, imaging and laser-ablation ICP-MS U-Pb dating of zircon to determine crystallization ages and provenance.

Total Amounts received: 2014: \$ 13,785

PI: Prof. Y. Bedi (Jeoloji Etutleri Dairesi, Universiteler Mah, Ankara, Turkey)

Tectono-Stratigraphic Features of the Istranca Massif and Correlation of Similar Units in Bulgaria, and other related projects.

Mineral separation, imaging and laser-ablation ICP-MS U-Pb dating of zircon to determine crystallization ages and provenance.

Total Amounts received: 2012: \$ 25,585;

2013: \$ 25,175

2014: \$ 13,785

PI: Dr. Köksal, Prof. Göncüoglu (Middle Eastern Technical University, Ankara, Turkey)

Magmatic evolution of S- and H- type granitoids from Central Anatolia. Using zircon to identify source components and petrogenetic or process indicators (with Dr. Frei, Danish Geological Survey, Copenhagen, Dr. Gerdes, Univ. Frankfurt)

The collaboration is on zircon zoning studies and laser-ablation ICP-MS U-Pb dating.

Funded by grant from Turkish Science foundation (TUBITAK) to PI's Köksal and Göncüoglu.

PI's: Prof. M. Moazzen, Dr. R. Hajialioghli (Tabriz University, Iran)

Metamorphic evolution of the Takab complex, NW Iran. Collaboration with Profs. R. Bousquet and R. Oberhänsli (Potsdam), Dr. G.T.R Droop (Manchester), and the SIMS laboratory at St. Petersburg.

The collaboration is on metamorphic petrology and in-situ U-Pb dating of zircon by ion microprobe.

Funded by grant from Iranian Science foundation to PI Moazzen.

with Prof. Yvette Kuiper (Colorado School of Mines, Golden, CO)

- Laser-ablation ICP-MS U-Pb dating of zircon for provenance analyses.

Total Amount received 2013: \$ 2,000

with Prof. Marina Suarez (University of Texas at San Antonio, San Antonio, TX)

- start-up funds Marina Suarez

Mineral separation and laser-ablation ICP-MS U-Pb dating of zircon to determine maximum age of deposition of paleosols.

Total Amount received 2013: \$ 8,100

with Prof. D. Kerr (University of Tulsa)

- active AAPG project, PI: D. Kerr (dennis-kerr@utulsa.edu)

Funding from: American Association of Petroleum Geologists Foundation: Detrital Zircon Geochronology from the Deepwater Atoka Formation (Middle Pennsylvanian) of the Southern Ouachita Mountains, Oklahoma: Implications for Gondwanan Provenance.

Mineral separation and laser-ablation ICP-MS U-Pb dating to determine provenance.

Laser ICP-MS funds received 2015: \$ 3,063

with Prof. R. M. Joeckel (School of Natural Resources, Lincoln, NE)

- STATEMAP-funded mapping of the Gross and Naper Quadrangles in Nebraska
Mineral separation and laser-ablation ICP-MS U-Pb dating of zircon to determine maximum age of deposition of paleosols.

Total amount received 2013: \$ 2,543 / 2015: \$ 2,000

with Brian Sitek (KU): undergraduate research grant: Assessing the Nature of an Ancient Geological Boundary Using Microscopy and Cathodoluminescence Imaging

KUGR Award: total award amount 2014: \$ 1,000

Other small grants and awards since 2008:

CLAS Travel award FY2017: \$1,200, for sabbatical and conference participation (oral presentation), Sabbatical in Lausanne and European Mineralogical Congress, Rimini, Italy, July-December 2016.

CLAS Travel award FY2016: \$750, for conference participation (oral presentation), Geological Society of America Meeting, Baltimore, Maryland, November 2015.

CLAS Travel award FY2013: \$1500, for conference participation (oral presentation), International Geological Congress, Brisbane, Australia, August 2012.

DAAD Travel award: €1500, ca. \$1960, for Colloquium at Christian-Albrechts-Universität zu Kiel, Germany, January 2012.

CLAS Travel award FY2010: \$700, for conference participation (poster presentation), Geological Society of America Meeting, Portland, Oregon, October 2009.

CLAS Travel award FY2008: \$900, for conference participation (session convener, oral and poster presentation), Goldschmidt Meeting, Vancouver, Canada, July 2008.

CLAS Travel award FY2009: \$450, for conference participation (invited oral presentation), AGU spring meeting, Montreal, Canada, May 2009.

Travel Award for 7th International SF-ICP-MS conference, RIAL workshop: ca. \$1300 (flight, accommodation, registration fee), Rutgers University, New Brunswick, NJ, USA. 10-12. Sept. 2008.

Senior research project W. Condict, with R. Styron, M.H. Taylor (University of Kansas):
U-Pb dating of granitoids in the Lunggar Rift, Western Tibet.

KUGR Award: total award amount: \$ 1,200 for 3 days laser work

Other Research Collaborations: (listing main collaborators)

- 1) **D. Rösel** (Universität Freiberg, Germany, PhD student) & **T. Zack** (University of Gothenburg, Sweden): Rutile as a provenance indicator in sediments
- 2) **J. Nie** (University of Lanzhou, China):
Provenance of zircon in quaternary and Neogene loess from the Chinese Loess Plateau
- 3) **N. M. Kelly** (University of Boulder, USA): Rutile petrochronology and U-Th-Pb chronology and fluid-related modification of monazite and rutile in granulites from the Oygarden Complex, East Antarctica.
- 4) **Yildirim Dilek** (Miami University, Oxford, Ohio, USA):
U-Pb provenance analysis of the Paleogene-Neogene Ulukisla basin in SE Turkey
(M.S. student Can Engin, graduated 2014)
- 6) **K. Appel** (Deutsches Elektronen Synchrotron, Hamburg, Germany), **P. Appel** (Christian-Albrechts Universität, Kiel, Germany): nano-scale imaging of internal zoning in accessory minerals
- 7) **E.W.G. Hellebrand** (University of Hawai'i, Honolulu, USA), **M.J. Whitehouse** (Swedish Museum of Natural History, Stockholm, Sweden):
Petrogenesis of gabbro-hosted zircon cumulates at the Mid-Atlantic Ridge.
- 8) **H. Shafai Moghadam** (Damghan University, Iran): U-Pb zircon geochronology of the Iranian ophiolite complexes
- 9) **M. Ghaffari** (Teheran University, Iran): U-Pb zircon geochronology of the Salmas magmatic complex

- 10) **P. Herms, K. Kraus, P. Appel, P. Raase** (Christian-Albrechts Universität, Kiel, Germany): Rutile thermometry and U-Pb thermochronology in the worlds oldest subduction-related eclogites from the Usagaran Orogen, Tanzania
K. Kraus: visiting scholar at KU funded by the German Academic Exchange Program (DAAD) from February - May 2014

Laser ICP-MS Laboratory Commercial and Contract Work

1) Forensic glass analysis by laser ICP-MS for

Allied Glass Experts LLC, H. Chamberlain, Kansas City, MO

Total Invoice Amounts:

2012: \$ 1970 / 2013: \$ 3846

Teaching Experience: coursework

(FT: Fall term; ST: spring term; SumT: summer term; L: Lecture; P: Prac. / laboratory; Sem: Seminar; p: partially taught; c: co-taught)

Semester	No. & Title of Course	Course type	Credit hours
ST18	GEOL791: LA-ICP-MS: theory and praxis	L/P	1
ST18	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST18	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT17	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
FT17	GEOL717: Geochronology	L	2-4
FT17	GEOL101: The way the Earth works	L	3
FT17	GEOL103: Geology Fundamentals Laboratory	P	2
SumT17	GEOL560/561: field camp part I & II (p, c, 50%)	mapping exercise	3
SumT16	GEOL560/561: field camp part I & II (p, c, 50%)	mapping exercise	3
ST16	GEOL101: The way the Earth works	L	3
ST16	GEOL103: Geology Fundamentals Laboratory	P (supervision)	2
ST16	GEOL791: Geochemistry & Tectonics (c, 25%)	Sem	1
FT15	GEOL101: The way the Earth works (c, 25%)	L	3
FT15	GEOL791: Common Minerals - Unusual Elements	L/P	1
FT15	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	3
SumT15	GEOL561: field camp part II (p, c, 50%)	mapping exercise	3
ST15	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST15	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST15	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT14	GEOL717: Geochronology	L	3
FT14	GEOL791: LA-ICP-MS: theory and praxis	L/P	1
FT14	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
SumT14	GEOL560: field camp part I (p, c)	mapping exercise	3
ST14	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST14	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST14	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT13	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
SumT13	GEOL560: field camp part I (p, c, 50%)	mapping exercise	3
ST13	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST13	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST13	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT12	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
FT12	GEOL717: Geochronology	L	3
SumT12	GEOL561: field camp part II (p, c, 50%)	mapping exercise	3
ST12	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST12	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST12	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT11	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
FT11	GEOL105/304: History of the Earth	L	3
ST11	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST11	GEOL717: Geochronology	L	3
ST11	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST11	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT10	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST10	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST10	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
ST10	GEOL791: Tectonics	Sem	1
FT09	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
FT09	GEOL105/304: History of the Earth	L	3
SumT09	GEOL561: field camp part II (p, c)	mapping exercise	3
ST09	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1
ST09	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST09	GEOL513: Petrology of magmatic & metam. rocks	P (supervision)	3
FT08	GEOL791: Geochemistry & Tectonics (c, 33%)	Sem	1

FT08	GEOL717: Geochronology	L	3
ST08	GEOL512: Petrology of magmatic & metam. rocks	L	3
ST08	GEOL513: Petrology of magmatic & metam. rocks	P	(supervision) 3

PREVIOUS TEACHING EXPERIENCE

WT: winter term; ST: summer term; (p): co-taught

Semester	Title of Course	Course type	hours/week
ST 01-WT08	each term Mineralogy Seminar series	Sem	(1 h/ week)
WT 07/08:	Optical Mineralogy III: magmatic rocks	(L & P)	(4 h/ week)
	Graduate School lecture (p)	L	(2 h/ week)
	Petrology of magmatic rocks (p)	L	(2 h/ week)
	Metamorphic Terrains I (p)	L	(2 h/ week)
ST 06:	Optical Mineralogy II: rock forming minerals responsible for all 3, taught 1	3x (L & P)	(2 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
	Metamorphic Terrains II (p)	L	(2 h/ week)
	Advanced graduate seminar: Petrology (with FU Berlin)	Sem	(1 h/ week)
WT 06/07:	Optical Mineralogy III: magmatic rocks	(L & P)	(4 h/ week)
	Graduate School lecture (p)	L	(2 h/ week)
	Petrology of magmatic rocks (p)	L	(2 h/ week)
	Metamorphic Terrains I (p)	L	(2 h/ week)
	Advanced graduate seminar: Petrology (with FU Berlin)	Sem	(1 h/ week)
WT 05/06:	Optical Mineralogy III: magmatic rocks	L & P	(4 h/ week)
	Graduate School lecture (p)	L	(2 h/ week)
ST 06:	Optical Mineralogy II: rock forming minerals	L & P	(2 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
WT 05/06:	Optical Mineralogy III: magmatic rocks	L & P	(4 h/ week)
	Seminar II: The lower crust (p)	L	(2 h/ week)
	Evolution of continents: Australia & Africa	L	(1 h/ week)
ST 05:	Optical Mineralogy II: rock forming minerals	L & P	(2 h/ week)
	Metamorphism II (p)	L	(2 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
WT 04/05:	Optical Mineralogy III: magmatic rocks	L & P	(4 h/ week)
	Metamorphism I (p)	L	(2 h/ week)
ST 04:	Optical Mineralogy II: rock forming minerals	L & P	(2 h/ week)
	Metamorphism II (p)	L	(2 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
WT 03/04:	Optical Mineralogy III: magmatic rocks	L & P	(6 h/ week)
	Metamorphism I (p)	L	(1 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
ST 03:	Optical Mineralogy II: rock forming minerals	L & P	(4 h/ week)
	Metamorphism II (p)	L	(1 h/ week)
WT 02/03:	Optical Mineralogy III: magmatic rocks	L & P	(4 h/ week)
	Metamorphism I (p)	L	(1 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
ST 02:	Optical Mineralogy II: rock forming minerals	L & P	(2 h/ week)
	Metamorphism II (p)	L	(4 h/ week)
	Evolution of continents: Australia & Africa	L	(1 h/ week)
WT 01/02:	Optical Mineralogy III: magmatic rocks	L & P	(4 h/ week)
	Metamorphism I (p)	L	(1 h/ week)
	Seminar I for geoscience undergraduates (p)	Sem	(2 h/ week)
WT 00/01:	Optical Mineralogy of rock forming minerals (50%)	L & P	(3 h/ week)
	Seminar P-T-t paths (p)	Sem	(1 h/ week)
ST 00:	Thermobarometry and its application (70%)	L & P	(2 h/ week)
	Optical Mineralogy of rock forming minerals (50%)	L & P	(3 h/ week)
WT 99/00:	Optical Mineralogy of rock forming minerals	L & P	(3 h/ week)

Field trips and mapping courses (co-supervision)

2017	GEOL560 & 561: field camp part I and II (p)	2 weeks, mapping
2016	GEOL560 & 561: field camp part I and II (p)	2 weeks, mapping
2015	GEOL561: field camp part II (p)	2 weeks, mapping
2014	GEOL560: field camp part I (p)	2 weeks, mapping
2013	GEOL560: field camp part I (p)	2 weeks, mapping
2012	GEOL561: field camp part II (p)	2 weeks, mapping
2009	GEOL561: field camp part II (p)	3 weeks, mapping
2009-16	GEOL 512, St. Francois Mts, MO	3-4 days, field trip
2008	GEOL 512, California (c)	4 days, field trip
2007	Morocco (Anti-Atlas)	2 weeks, mapping
2004	Adamello (Italian Alps)	2 weeks, mapping
2002	Tjörn (SW Sweden)	2 weeks, mapping
	Saxony (Germany)	3 days, field trip
2000	Black Forest, Kaiserstuhl (Germany)	2 days, field trip
	Franconia (Germany)	6 days field trip
1997	Broken Hill (Australia)	1 week, mapping
	South coast NSW (Australia)	5 days, field trip
1996	Broken Hill (Australia)	1 week, mapping
	South coast NSW (Australia)	5 days, field trip

Student Supervision

Visiting scholar supervision

- Prof. Dr. Semih Gürsu (Mugla University, Turkey) visiting scholar funded by the Turkish Science Foundation (TUBITAK), September 2014 - August 2015
- Caue Cioffi (Universidade de São Paulo, Brazil) visiting scholar (Ph.D. student) funded by the São Paulo State Science Funding Association (FAPESP), August 2014 - August 2015
- Brenda C. Rocha (Universidade de São Paulo, Brazil) visiting scholar (Ph.D. student) funded by the São Paulo State Science Funding Association (FAPESP), August 2014 - August 2015
- Katrin Kraus (Christian-Albrechts Universität Kiel, Germany): visiting scholar (graduate) funded by the German Academic Exchange Program (DAAD), February - May 2014

Graduate students

- Maggie Graham MS expected graduation 2017
- **previous:**
- Jeffrey Oalman PhD graduated ST 2017
- Peter G. Lippert MS graduated ST 2014

Supervision with co-supervisor

- Brittany Hendrix MS expected graduation 2017 (co-supervisor: G. Ludvigson)
- **previous:**
- Brian Sitek MS graduated SumT 2017 (co-supervisor: G. Ludvigson)
- Jason Hallman MS graduated ST 2016 (co-supervisor: N. McLean)
- Tyson Berndt MS graduated FT 2015 (co-supervisor: J.D. Walker)

Co-supervisor for

- **previous:**
- Holly Field MS graduated ST 2017 (supervisor: G. Ludvigson)
- Joseph Miller MS graduated FT 2012 (supervisor: D.F. Stockli)

Graduate committee member for

- Clay Campbell PhD expected graduation 2021
- Ashley Cocciadiferro MS expected graduation 2019
- Clark Sturdevant MS expected graduation 2019
- Deserae Jennings PhD expected graduation 2019
- Katie Graham MS expected graduation 2018
- Tyrell Tenpenny MS expected graduation 2018

previous:

- Clay Campbell MS graduated SumT 2017
- Ben Campanaro MS graduated SumT 2017
- Bridget Pettit MS graduated SumT 2017
- James Tyrrell MS graduated FT 2016
- Jeffrey Ross MS graduated FT 2016
- Edward Morehouse MS graduated ST 2015
- Charity M. Lander PhD graduated SumT 2014
- Tandis Bidgoli PhD graduated ST 2014
- Richard Styron PhD graduated FT 2012
- Andrew McCallister MS graduated FT 2012
- Sarah L. Evans MS graduated ST 2012

Undergraduate Senior Research supervision

previous:

- Eli Turner graduated 2017 (co-supervisor, main supervisor J.J. Smith)
- Brian Sitek graduated 2014
- Jacob Clayton graduated 2014
- Gilbert Ching graduated 2014
- Jessica Savage graduated 2012
- Wade Condict graduated 2012
- Peter G. Lippert graduated 2010

External Co-Supervisor of Doctorate and PhD students

Astrid Riemann (Dr. rer. nat., U. Potsdam) external advisor

A. Samad Pourmohammad (PhD, U. Kerman, Iran) external advisor, graduated 2010

Previous: supervisor of Diplom (equiv. M.Sc.) student

(Potsdam) petrology and geochronology:

- Sylvia Schmitz (Diplom, Potsdam) (graduated 2007)

Informal Co-advisor of Ph.D., Dr. rer. nat. and Diplom students

(in Kiel, Sydney and Potsdam) in petrology, geochemistry, geochronology, isotope geochemistry:

- Robab Hajialioghli (PhD, Tabriz, Iran)
- Franziska Wilke (Diplom, Potsdam)
- Hilke Timmermann (Diplom, Kiel)
- Dorothea Meinold (Diplom, Kiel)
- Monica Vasquez (Dr.rer.nat., Potsdam)
- Serhat Köksal (PhD, Ankara, Turkey)
- Nicholas J. Post (PhD, Sydney, Australia)

- Associate of the graduate school at the University Mainz: composition and evolution of Earth's crust and mantle and cooperation with Dr.rer.nat. students (e.g. Sandra Piazzolo), 1999-2001.