

Curriculum vitae

Prof. Dr. Axel Karl Schmitt

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Date of birth: February 27 1968

Citizenship: German and U.S. (dual citizenship)

Languages: German (native), English (fluent), French (good), Russian, Spanish, and Turkish (basic)

Professional experience

Since Aug 2015 University of Heidelberg

Professor

July 2011 to July 2014 University of California Los Angeles

Associate Professor-in-Residence (faculty and academic senate member)

July 2009 to June 2011 University of California Los Angeles

Associate Adjunct Professor

Manager NSF National Ion Microprobe Facility

Apr. 2008 to July 2009 University of California Los Angeles

Assistant Adjunct Professor

Manager NSF National Ion Microprobe Facility

Oct. 2006 to Mar. 2008 University of California Los Angeles

Associate Research Specialist and Lecturer

Sept. 2003 to Sept. 2006: University of California Los Angeles

Staff Research Associate

Jan. 2003 to Aug. 2003: GeoForschungsZentrum Potsdam

Staff Researcher (with tenure)

Sept. 2002 to Dec. 2002: Australian National University

Visiting Fellow

2000 to 2002: University of California, Los Angeles

Post-doctoral researcher

1999 to 2000: GeoForschungsZentrum Potsdam

Post-doctoral researcher

Education

1999 Doctorate (Dr. rer. nat.), Mineralogy, University of Giessen, Germany

Thesis title: "Melt Generation and Magma Chamber Processes in the Purico Complex and Implications for Ignimbrite Formation in the Central Andes"

Thesis supervisor Prof. Rolf Emmermann

1995 Diploma (MSc), Mineralogy, University of Giessen, Germany

1994 'First State Examination' (qualification required for teaching chemistry at secondary school level), University of Giessen, Germany

Professional service and memberships

Editorial board member: Journal of Volcanology and Geothermal Research (since 2007); PLOS ONE (since 2014); Royal Society Open Science (since 2017)

About 30 reviews for ca. 20 journals, and 15 reviews for international funding organizations over the past three years

Panel member and positions of trust: German Research Foundation (DFG) Priority Program (2011-2012), UC-MEXUS grant proposal review panel (2009, 2010), Scientific Advisory Board Member for the NERC Ion Microprobe Facility (2013-2017), Fulbright Peer Review Committee (2016), Deutsche Mineralogische Gesellschaft (DMG) Vice-Chair of Geochemistry Section (2018)

Memberships: American Geophysical Union, Deutsche Mineralogische Gesellschaft (DMG), Deutsche Geologische Gesellschaft – Geologische Vereinigung (DGGV), Geothermal Resources Council, Mineralogical Society of America

Organisation of Scientific Meetings: Convenor, Symposium on Arc Magmatism, XXV IUGG General Assembly, Melbourne, Australia, 2011; Session Convenor, Accessory Mineral Dating in Geosciences, Goldschmidt Conference, Sacramento, USA, 2014; Organizer of the National Science Foundation SIMS Student Workshop (2007, 2009-2012, 2014) with ca. 25 participants each, University of California Los Angeles, USA

Institutional responsibilities at UCLA: Ad-hoc Committee Member for Academic Personnel Advancements (2 Professorial, 8 Researcher cases); at Heidelberg University: Committee Member for Student Affairs, Department Vice Chair (2017)

Awards and Grants

Carl-Zeiss-Foundation, 2015

Fulbright U.S. Scholar Award, 2014

Mineralogical Society of America Fellow, 2014

ETH Zürich Department of Earth Sciences Visiting Professor, 2014

"Best Paper Award", 2002 and 2006, Geothermal Resources Council Meeting

"Research Award for Excellence in PhD", 1999, GeoForschungsZentrum Potsdam

Research Fellowship at ion microprobe facility of Arizona State University, 1998, German Academic Exchange Service (DAAD)

Max-Kade-Foundation "A Max-Kade-Foundation Visiting Professorship for Prof. Elizabeth Catlos (University of Texas at Austin) at Heidelberg University" **€13K** (2017-2018)

DFG "Zircon in tephra as a novel tool to decrypt geologic and archaeological archives: a case study from Central America" **€240K** (2017-2018)

DFG "Late Proterozoic Rodinia breakup in Mexico - A new approach using SIMS dating of zircon coronas and baddeleyite" **€133K** (2017-2018)

DFG "Eruptive recurrence and magma accumulation for Quaternary stratovolcanoes in Central Anatolia" **€37K** (2016-2019)

DFG "Acquisition of a Scanning Electron Microscope with Correlative Micro-Raman Imaging" **€650K** (2016-2017)

- National Geographic Society "*The August 2016 Santa Maria (Guatemala) eruption: a unique opportunity to test tephra deposition models for Maya archaeological sites*" **€3.2K** (2016)
- German Scholar Organization – Carl-Zeiss-Foundation "*Acquisition of a Zeiss Axio Imager.M2m*" **€98K** (2015-2016)
- USSP-IODP "*Post-expedition Activity Award: Zircon geochronology and compositions to constrain magmatic and sedimentary processes in the Izu rear arc*" **\$15K** (2014-2016)
- NSF "*MRI: Development of a high precision ion microscope for geosciences applications*" (Co-PI with Profs. Harrison and McKeegan) **\$3.7M** (2014)
- NSF "*UCLA National Ion Microprobe Facility*" (Co-PI with Profs. Harrison and McKeegan) **\$1.8M** (2013-2017)
- UC-MEXUS CONACYT "*Zircon chronometry of the hyperactive El Chichón volcano (Chiapas, Mexico) and implications for Maya clay*" **\$25K** (2013)
- DURIP "*Acquisition of a Scanning Electron Microscope to Support Research on Rates of Terrain Evolution and Surface Process*". **\$236K** (2013)
- UCLA Transdisciplinary Seed Grant "*Investigating Prehistoric Jade Circulation in Northeast Eurasia Using Geochronometric Sourcing Methods*" (Co-PI with Prof. Arnold) **\$23K** (2013-2015)
- NSF "*Development of a Micro-baddeleyite (ZrO₂) U-series Chronometer for Recent Mafic Lavas*" **\$200K** (2013-2014)
- NSF "*UCLA National Ion Microprobe Facility*" (Co-PI with Profs. Harrison and McKeegan) **\$1.0M** (2010-2013)
- NSF "*MARGINS: Controls on Magma Generation at Incipient Spreading Centers*" **\$25K** (2009-2011)
- NSF "*Timescales of Continental Magmatism and Development of Large Silicic Systems: Insights from Accessory Phases*" (Co-PI with Prof. De Silva, Oregon State University) **\$321K** (2009-2011)
- National Geographic Society "*Dating Zircon Survivors in Multi-cycle Arc Volcanoes: a new Tool for Predicting Long-term Magmatic Periodicity?*" **\$17K** (2008-2009)
- NSF "*UCLA National Ion Microprobe Facility*" (Co-PI with Profs. Harrison and McKeegan) **\$1.1M** (2007-2010)
- NSF "*Magma Differentiation Time Scales in Carbonatite-Silicate Systems*" **\$94K** (2007-2009)
- UC-MEXUS CONACYT "*Ages and Origins of Volcanism in the Northern Gulf of California*" **\$25K** (2007-2008)
- UCLA Office of Instructional Development, *IIP Grant* **\$5,600** (2014) "*Acquisition of Real-Time Digital Imaging Cameras to Enhance Microscopy Training*" (with Profs. Tripathi and Schauble)
- UCLA Office of Instructional Development, *Mini-Grants* **\$4,200** (2007, 2008, 2009, 2011, 2012, 2013, 2014) for field trip support and development of undergraduate lab activities
- Major ongoing international collaborations:
- NSF EAR 1551187 "*Timing, Rates and History of Post-YTT (<74 ka) Resurgent Uplift of Samosir Island, Toba, Sumatra*" (with Prof. Shanaka De Silva, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, USA)
- Australian Research Council Discovery Grant DP160102427 "*Closing the gap: A novel 50,000–1,000,000 year dating method for Quaternary chronology*" (with Dr. Martin Danisik, John de Laeter Centre of Excellence in Mass Spectrometry, Curtin University, Australia)

Supervision of Graduate Students and Post-doc

- Since 2015* Heidelberg University: 2 Doctoral Students, 6 MSc Students
2009 – 2014 UCLA: 1 Postdoc (Dr. Mélanie Barboni funded through a SNF Advanced Postdoctoral Mobility Grant), 3 Doctoral Students (as co-supervisor), 6 MSc Students (primary supervisor and co-supervisor)
2009 – 2011 Oregon State University, College of Earth, Ocean, and Atmospheric Sciences: 2 Doctoral Students (as co-supervisor), 2 MSc Students (co-supervisor)

Courses Taught

- Since 2015* Heidelberg University: Earth System Science, Geochronology, Geodynamics and Petrology, Igneous Petrology, Metamorphic Petrology, Mineralogy
2006 – 2015 UCLA: Environmental Sciences, Igneous Petrology, Mineralogy, Volcanology
2000 and 2003 University of Potsdam: Geochemical Modelling