

# Curriculum Vitae

Dr. Julia Arndt

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## Education and work experience

- since 04/2018 Lecturer and Postdoc in the Applied Geology Group,  
Friedrich-Alexander-Universität Erlangen-Nürnberg,  
GeoCentre North Bavaria
- 11/2017 PhD Graduation in Environmental Geochemistry,  
University of Bayreuth  
*“Evaluation of active and passive sampling techniques for  
determination of total volatile arsenic and its speciation in volcanic  
gases and biogases“*
- 04/2013- 03/2017 Research assistant in the Environmental Geochemistry Group,  
University of Bayreuth
- 10/2010-12/2012 Master of Science Geoecology – Environmental Sciences,  
University of Bayreuth; Specialization: Biogeochemistry
- 10/2007-09/2010 Bachelor of Science Geoecology,  
University of Bayreuth

## Award

Scholarship of the German Academic Exchange Service (DAAD) for a Research stay at  
Trent University, Peterborough, Canada (05/2014-09/2014)  
*Development of a sampling and analysis technique for gaseous metalloids by GC-EI-MS*

## Supervision of students and teaching

- Supervision of 3 BSc and 1 MSc Theses (field and laboratory work as well as data evaluation, writing, and correction)
- Student supervision in the chemosphere practical training and students' excursion to the USA (BSc program) and combined practical training and seminar for preparation for the master thesis (MSc program)
- Seminar for hydrogeochemical modelling with PHREEQC

## Analytical Knowledge

- (IC-)ICP-MS (inductively coupled plasma mass spectrometry with ion chromatography)
- GC-EI-MS (gas chromatography with mass spectrometry)
- AFS (atomic fluorescence spectroscopy)

## Research interests

- Trace elements in the environment
- Hydrothermal and volcanic areas
- Monitoring of emissions
- Phreeqc (hydrogeochemical modelling)
- Understanding environmental processes



## Publications and presentations

Arndt, Planer-Friedrich (2018): Moss bag monitoring as screening technique to estimate the relevance of methylated arsine emission, in: *Science of the Total Environment* 610-611: 1590-1594.

Arndt, Calabrese, D'Alessandro, Planer-Friedrich (2017): Using mosses as biomonitors to study trace element missions and their distribution in volcanic areas: examples from six active volcanoes, in: *Journal of Volcanology and Geothermal Research* 343: 220-232.

Arndt, Ilgen, Planer-Friedrich (2017): Evaluation of techniques for sampling volatile arsenic on volcanoes, in: *Journal of Volcanology and Geothermal Research* 331: 16-25.

Arndt, Calabrese, D'Alessandro, Planer-Friedrich (2014): Active moss monitoring allows to identify and track distribution of metal(loid)s emitted from fumaroles on Vulcano Island, Italy, in: *Journal of Volcanology and Geothermal Research* 280: 30-39.

Arndt, Calabrese, D'Alessandro, Planer-Friedrich (2013): Volcanic gas and particle monitoring using moss-bags on Vulcano Island, Italy, in: Papatheodorou, Iatrou, Christodoulou, Kordella, Geraga (Eds.), *International Conference on Gas Geochemistry (ICGG-12) Book of Abstracts*; University of Patras.

Arndt, Calabrese, D'Alessandro, Planer-Friedrich: Volcanic gas and particle monitoring using moss-bags on Vulcano Island, Italy (09/2013). Presentation on the International Conference on Gas Geochemistry (ICGG12), Patras, Greece

Arndt, Calabrese, D'Alessandro, Planer-Friedrich: Volcanic gas and particle monitoring using moss-bags on Vulcano Island, Italy (05/2013). Invited presentation at the Istituto Nazionale di Geofisica e Vulcanologia (INGV), Palermo, Italy