

# *Curriculum Vitae*

Dr. rer. nat. Tobias Björn Weisenberger  
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## **Personal Information:**

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Date/ Place of birth:	04.12.1979, Emmendingen/ Baden-Württemberg/ Germany
Gender:	Male
Marital status:	Single
Nationality:	German

## **Positions Held:**

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### *Geological*

2010 – recent	Postdoctoral fellow, Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin
2006 – 2008	Research and teaching assistant at Institute of Mineralogy and Geochemistry, Albert-Ludwigs-University of Freiburg, Germany
2002 – 2005	Scientific student assistant at Institute of Mineralogy and Geochemistry, Albert-Ludwigs-University of Freiburg, Germany
2001 – 2003	Geological field assistant in an engineering company “Klipfel-Lenhardt-Consult“, Endingen, Germany

### *Related Experience*

2000	Pfizer, Freiburg, Pharmacy concern
1999 – 2000	Oetiker, Endingen, Metalworking industry

## **Education:**

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### *University Education*

2009	Graduation in Freiburg: Dr rer. nat. (magna cum laude). Title of PhD thesis: "Zeolites in fissures of crystalline basement rocks"
2006 – 2009	Ph.D. study at the Institute of Mineralogy and Geochemistry, Freiburg, Germany
2005	Graduation in Freiburg: Diploma (overall grade good). Title of diploma thesis: "Zeolite facies mineralisation in the Hvalfjörður area, Iceland"
2000 –2005	Geoscience study at the Albert-Ludwigs University of Freiburg; Areas of concentration: Mineralogy, Petrology, Geochemistry and Volcanology

### *Primary School/ Secondary School*

1999	Graduation "High School Leaving Certificate, A-Levels"
1990 – 1999	Secondary school, Gymnasium Kenzingen, Germany
1986 – 1990	Primary school in Endingen, Germany

## **Administrative Experience /Honorary Post and Organization Work:**

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2001 – 2005	Active member of the student council geology/mineralogy
10/2002 – 09/2004	Elected student representative at the Faculty of chemistry, pharmacy and geosciences; University Freiburg
10/2002 – 09/200	Student representative at the study board for chemistry, pharmacy and geosciences
10/2003 – 09/2005	Student representative on the study board for geosciences
10/2002 – 09/2005	Student representative in the examination board for geology
11/2003	Managed and organized the 4 days "Annual German Student Council Meeting" for geology students (BuFaTa) including workshops, lectures, excursions and social events.
10/1999 – 2010	Volunteer as fire-fighter at the fire department Endingen, division Amoltern

## **Publications:**

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### *Peer-Reviewed Papers*

Submitted/in review/in preparation

- 10) Bucher K. & **Weisenberger T.B.** Alpine stilbite: a natural record of fluid changes during exhumation (in prep. 50%)
- 9) **Weisenberger T.B.**, Eichhubl P., Fall A., & Laubach S.E. Diagenetic controls on carbonate fracture cementation, Mesaverde Group, Piceance Basin (in prep. 60%)
- 8) Kousehlar M., **Weisenberger T.**, Tutti F., & Mirnejad H. Fluid control on low-temperature mineral formation in volcanic rocks of Kahrizak, Iran (submitted to Geofluids)

#### Published

- 7) **Weisenberger T.**, Rahn M. van der Lelji R., Spikings R. & Bucher K. (2012) Timing of low-temperature mineral formation during exhumation and cooling in the Central Alps, Switzerland. *Earth and Planetary Science Letters*. 327-328, 1-8. doi: 10.1016/j.epsl.2012.01.007
- 6) **Weisenberger T.** & Bucher K. (2011) Mass transfer and porosity evolution during low temperature water-rock interaction in gneisses of the Simano nappe: Arvigo, Val Calanca, Swiss Alps. *Contributions to Mineralogy and Petrology*. 162 (1), 61-81. doi: 10.1007/s00410-010-0583-2
- 5) **Weisenberger T.** & Bucher K. (2010) Zeolites in fissures of granites and gneisses of the Central Alps. *Journal of Metamorphic Geology* 28 (8), 825-847. doi:10.1111/j.1525-1314.2010.00895.x
- 4) **Weisenberger T.** & Selbekk R.S. (2009) Multi-stage zeolite facies mineralization in the Hvalfjörður area, Iceland. *International Journal of Earth Sciences*, 98, 985-999. doi: 10.1007/s00531-007-0296-6
- 3) **Weisenberger T.** & Spürgin S. (2009) Zeolites in alkaline rocks of the Kaiserstuhl volcanic complex, SW Germany - new microprobe investigation and their relationship to the host rock. *Geologica Belgica* 12/1-2, 75-91
- 2) Spürgin S., **Weisenberger T.** & Hörth J. (2008) Das Leucitophyrvorkommen vom Strümpfekopf im Kaiserstuhl – eine historische und mineralogische Betrachtung. *Berichte der Naturforschenden Gesellschaft zu Freiburg i. Br.* 98, 221-244
- 1) Selbekk R.S. & **Weisenberger T.** (2005) Stellerite from the Hvalfjörður area, Iceland. *Jökull* 55, 49-52

#### *Popular Scientific Papers*

- 5) **Weisenberger T.B.** & Spürgin S. (2012) Die Färöer - ein geologischer Streifzug. *Aufschluss*
- 4) **Weisenberger T.** & Spürgin S. (2010) Die wohl bekannteste Schweizer Zeolith-Fundstelle: Der Gibelsbach bei Fiesch im Kanton Wallis. *Mineralien Welt* 21 (5), 74-85.
- 3) **Weisenberger T.**, Spürgin S. & Selbekk R.S. (2008) Die Fundstelle Helgustadir (Island): Geologie, Mineralogie und die bedeutende Geschichte des Isländischen Doppelspats für die Wissenschaft. *Aufschluss* 1, 53-63
- 2) **Weisenberger T.** & Selbekk R. S. (2006) Die Zeolith-Fundstelle Hvalfjordur, Island *Mineralien Welt* 17(1), 50-56
- 1) **Weisenberger T.** (2005) Zeolithe in Island. *Island; Zeitschrift der Deutsch-Isländischen Gesellschaft e.V. Köln und der Gesellschaft der Freunde Island e.V. Hamburg* 2005(1), 40-45

#### *Excursion Guide*

- **Weisenberger T.** & Spürgin S. (2008) Secondary minerals in the limburgites. In Keller J.: *Tertiary Rhinegraben volcanism: Kaiserstuhl and Hegau*. 9th International Kimberlite Conference, Frankfurt/Main, field trip, 24-25

## Abstracts

- 12) **Weisenberger T. B.**, Fall A., Hooker J. N., Eichhubl P., Laubach S. E. & Davis J. S. (2012) Predicting fracture porosity degradation by calcite cement in Mesaverde Group Sandstones, Piceance Basin, Colorado. American Association of Petroleum Geologists Annual Convention and Exhibition, April 22-25, 2012, Long Beach, California; # 1232574
- 11) Eichhubl P., Gale J. F., Olson J. E., Laubach S. E., Hooker J. N., Fall A., **Weisenberger T. B.** & Ukar E. (2012) What can outcrop and core Based observations tell us about natural fractures in unconventional reservoirs? American Association of Petroleum Geologists Annual Convention and Exhibition, April 22-25, 2012, Long Beach, California; # 1236894
- 10) **Weisenberger T.**, Rahn M., van der Lelij R., Spikings R. & Bucher K. (2009) Timing and mineral evolution during low-temperature fluid-rock interaction on upper crustal level: an approach of  $^{40}\text{Ar}/^{39}\text{Ar}$  apophyllite-(KF) dating, apatite fission track analysis and thermodynamic modeling on Alpine fissures. 87th Annual Meeting of the German Mineralogical Society – DMG 13<sup>th</sup>–16<sup>th</sup> September 2009 Halle. Hallesches Jahrbuch für Geowissenschaften 31, 261 (Poster)
- 9) **Weisenberger T.** & Bucher K. (2008) Ca-Al silicate formation during low-grade metamorphism in the upper continental crust. 86th Annual Meeting of the German Mineralogical Society – DMG 14<sup>th</sup>–17<sup>th</sup> September 2008 Berlin, S18T06 (Talk)
- 8) Spürgin S. & **Weisenberger T.** (2008) Faujasite growth during palagonitisation of Mg-rich sideromelane: an example from the Kaiserstuhl Volcanic Complex, SW Germany. 86th Annual Meeting of the German Mineralogical Society – DMG 14<sup>th</sup>–17<sup>th</sup> September 2008 Berlin, S18P07 (Poster)
- 7) **Weisenberger T.** & Bucher K. (2008) Porosity evolution and mass transfer during low-grade metamorphism in crystalline rocks of the upper continental crust. 33<sup>rd</sup> IGC International Geological Congress 6<sup>th</sup>-14<sup>th</sup> August 2008 Oslo, MPN03710L (Talk)
- 6) **Weisenberger T.** & Bucher K. (2007) Porosity increase during low-temperature metamorphism in gneisses of the Simano nappe (Arvigo, Val Calanca). 5th Swiss Geoscience Meeting 17<sup>th</sup>-18<sup>th</sup> November 2007 Geneva, Switzerland, 104-105 (Poster)
- 5) **Weisenberger T.** & Bucher K. (2007) Low-grade zeolite facies metamorphism in gneisses of the Simano nappe (Arvigo, Val Calanca, Grisons, Switzerland). *Geochimica et Cosmochimica Acta* 71(15) Supplement 1, A1100 (Talk)
- 4) Selbekk R.S. & **Weisenberger T.** (2007) Multi-stage zeolite facies metamorphism, Southwest Iceland. NGF Winterconference Stavanger 8<sup>th</sup>-10<sup>th</sup> January 2007. NGF Abstracts and Proceedings of the Geological Society of Norway 1, 90 (Poster)
- 3) **Weisenberger T.** & Bucher K. (2006) Zeolites on fissures of alpine crystalline basement rocks in the Swiss Alps. *Berichte der Deutschen Mineralogischen Gesellschaft, Beiheft zum European Journal of Mineralogy* 18 (1), 153 (Talk)
- 2) Selbekk R.S. & **Weisenberger T.** (2006) Zeolite facies metamorphism in the Hvalfjörður area, Iceland. In Bowmann R.S. and Delap S.E. *Zeolite '06 - 7th International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites*, Socorro, New Mexico USA, 16<sup>th</sup>-21<sup>st</sup> July 2006, 220 (Poster)
- 1) **Weisenberger T.** & Bucher K. (2006): Zeolites on fissures of crystalline basement rocks in the Swiss Alps. In Bowmann R.S. and Delap S.E. *Zeolite '06 - 7th International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites*, Socorro, New Mexico USA, 16<sup>th</sup>-21<sup>st</sup> July 2006, 253 (Talk)

## *Thesis*

- **Weisenberger T.** (2009) Zeolite in fissures of crystalline basement rocks. PhD thesis, University of Freiburg, 178 pp
- **Weisenberger T.** (2005) Zeolite facies mineralisation in the Hvalfjörður area, Iceland. Diploma thesis, University of Freiburg, 142 pp

## **Awards**

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- Structural Diagenesis Fellowship - The GDL Foundation (2012) (\$ 9,019.50)
- Best Poster Presentation - Research Symposium Faculty of Chemistry, Pharmacy, and Earth Sciences (2007)

## **Extended Vocational Training:**

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### *International Workshops and Short Courses*

22.05. – 24.05.2011	Basics of 3D Quantitative Analysis of Geological Materials Using CT (Richard Ketcham & Romy Hanna, Texas High-Resolution X-ray Computed Tomography Facility, The University of Texas at Austin)
19.06. – 21.06.2009	Thermodynamics and kinetics of water-rock interaction (Eric Oelkers & Jacques Schott, MSA & GS pre-conference workshop Goldschmidt 2009, Davos)
08.10. – 12.10.2007	Diffusion in geological materials (Prof. Dr. Rainer Abart, Free University Berlin)
05.03. – 09.03.2007	Vibrational spectroscopy (Infrared Absorption and Raman): applications in geosciences (Prof. Dr. Lutz Nasdala, University of Vienna)
02.10. – 06.10.2006	In situ isotope- and trace element analysis in geosciences using Laser Ablation Spectrometry (Prof. Dr. Stefan Weyer, University of Frankfurt)
06.06. – 09.06.2006	Application of solid state NMR Spectroscopy in geosciences (PD. Dr. Michael Fechtorkord, University of Bochum)
28.06. – 02.07.2004	Image analysis in earth sciences and optical orientation imaging (Prof. Dr. Renée Heilbronner, University of Basel)
23.02. – 27.02.2004	Pyroclastic Rocks (Prof. Dr. Hans-Ulrich Schmincke, IFM-Geomar Kiel)

### *Softskill Training*

23.06. – 24.06.2009	Determination of job-related potential (Dr Peter Modler, management consultant, Dr. Modler, Freiburg/Amoltern)
16.01. – 20.01.2009	Improving presentation skills by taking the lead in the interview (Jörg Blömeling, Trainer für Präsentation und Gesprächsführung, Neue Kommunikative, Freiburg)

14.12. – 15.12.2008	Introduction to team leadership experience (Dr. Harald Schützeichel, ductus. Gesellschaft für Management- und Führungskultur mbH, Freiburg)
03.04. – 04.04.2008	Reasonable and beneficial design of courses (Edith Kröber, Dr. Katrin Thumser-Dauth, Hochschuldidaktikzentrum Baden-Württemberg)
20.06.2008	Science management, a practical (Magnus M. Gees, University of Freiburg)

## **Teaching Experience:**

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### *Lectures*

- Rocks and Minerals (fall terms: 08/09, 07/08, 06/07, 05/06, 04/05, 03/04, 02/03)
- Exercises Optical Microscopy (spring terms: 08, 05, 04, 03; fall terms 03/04)
- Exercises to Mineralogy and Petrology (spring terms: 07, 06)

### *Field Courses*

- Black Forest excursion (1 day; 2006, 2005)
- Eifel excursion (3 days; 2007, 2005)
- Iceland excursion (15 days, 2005)
- Kaiserstuhl excursion (1 day; 2008, 2006, 2005, 2004, 2003)
- Nördlinger Ries excursion (3 days; 2008, 2007, 2006)
- Schönberg/Freiburg excursion (1 day; 2006, 2005, 2004)
- Ballachulish/Scotland mapping course (7 days; 2008)
- Greina/Gotthard Massif/Switzerland mapping course (7 days; 2007)
- Zermatt/Switzerland excursion (assistant; 5 days, 2006)
- Lukmanier/Switzerland excursion (assistant; 3 days, 2006)
- Bretagne/France (assistant; 7 days, 2004)
- Vosges/France (assistant; 2 days, 2008)

## **Reviewer:**

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AAPG Bulletin  
 Clay Minerals  
 Geologica Belgica  
 Mineralogical Magazine

## **Professional Affiliations**

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Member of the “Geologische Vereinigung”  
 Member of the “Deutsche Mineralogische Gesellschaft”  
 Member of the “Geological Society of America”  
 Member of the “American Geophysical Union”  
 Member of the “American Association of Petroleum Geologists”  
 Member of the “Deutsch-Isländische Gesellschaft”  
 Member of the “Eugen e.V. (EUropean GEology students Network)”

## **Computer Skills:**

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Applications: MS Office (Word, Excel, Powerpoint), Adobe (Photoshop, Illustrator), FileMakerPro  
Operating Systems: Mac OS, Win95/98/ME, Win NT/2000/XP  
Geoscience applications\_ Theriak/Domino, PTAX (TWQ), SUPCRT, PHREEQC, GSAS (basics), SpheriStat, Geochemist Workbench

## **Language Skills:**

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German Mother tongue  
English Fluently in reading, speaking, writing  
Latin Basic knowledge

## **References:**

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& Geothermal Geology  
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Austin, April 9<sup>th</sup> 2012



Tobias Weisenberger