

## Publication List - Dr. Jochen E. Mezger (as of October 2019)

### Peer reviewed

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1. Schnapperelle, S., **Mezger, J. E.**, Stipp, M., Hofmann, M., Gärtner, A. & Linnemann, U.: Polyphase magmatic pulses along the Northern Gondwana margin: U-Pb zircon geochronology from gneiss domes of the Pyrenees. - *Submitted to Gondwana Research*.
2. **Mezger, J.E.** & Régnier, J.-L. (2016): Stable staurolite-cordierite assemblages in K-poor metapelitic schists in Aston and Hospitalet gneiss domes of the central Pyrenees (France, Andorra). - *Journal of Metamorphic Geology* 34, 167–190. doi: 10.1111/jmg.12177
3. **Mezger, J.E.** & Gerdes, A. (2016): Early Variscan (Visean) granites in the core of central Pyrenean gneiss domes: implications from laser ablation U-Pb and Th-Pb studies. *Gondwana Research* 29, 181–198. doi: 10.1016/j.gr.2014.11.010
4. **Mezger, J.E.**, Felder, M. & Harms, F.-J. (2013): Crystalline rocks in the maar deposits of Messel: key to understand the geometries of the Messel Fault Zone and diatreme and the post-eruptional development of the basin fill. – *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften* 164, 639–662.
5. **Mezger, J. E.**, Schnapperelle, S. & Rölke, C. (2012): Evolution of the Central Pyrenean Mérens fault controlled by near collision of two gneiss domes. - *Hallesches Jahrbuch für Geowissenschaften* 34, 11–29.
6. **Mezger, J. E.** (2010): Rotation of irregular staurolite porphyroblasts in a simple shear dominated shear zone controlled by initial growth orientation and aspect ratio. - *Journal of Structural Geology* 32, 1147–1157. doi: 10.1016/j.jsg.2010.07.002
7. **Mezger, J. E.** (2010): Mimicking syntectonic growth: cordierite overgrowth of earlier rotated staurolite porphyroblasts, strain caps and deflected foliation. - *Journal of Structural Geology* 32, 703–708. doi: 10.1016/j.jsg.2010.04.012
8. **Mezger, J. E.** (2009): Transpressional tectonic setting during the main Variscan deformation: evidence from four structural levels in the Bossòst and Aston-Hospitalet mantled gneiss domes, central Axial Zone, Pyrenees. - *Bulletin de la Société Géologique de France* 180, 199–207. doi: 10.2113/gssgfbull.180.3.199
9. Régnier, J.-L., **Mezger, J. E.** & Passchier, C. W. (2007): Metamorphism of Precambrian-Paleozoic schist of the Menderes core series and contact relationships with Proterozoic orthogneiss of the western Çine Massif, Anatolide Belt, western Turkey. - *Geological Magazine* 144, 67–104. doi: 10.1017/S0016756806002640
10. **Mezger, J. E.** (2005): Comparison of the western Aston-Hospitalet and the Bossòst domes: Evidence for polymetamorphism and its implications for the Variscan tectonic evolution of the Axial Zone of the Pyrenees. - In: (eds.) Carosi, R., Dias, R., Iacopini, D. and Rosenbaum, G., The southern Variscan belt, *Journal of the Virtual Explorer* 19, Paper 6, Electronic Edition, ISSN 1441-8142 doi:10.3809/jvirtex.2005.00122 (<http://www.virtualexplorer.com.au/journal/2005/19>)
11. **Mezger, J. E.** & Passchier, C. W. (2004): Comment on "Identification of an underfilled foreland basin system in the Upper Devonian of the Central Pyrenees: implications for the Hercynian orogeny" by Souquet et al., *International Journal of Earth Sciences* 92, 316–337 (2003). - *International Journal of Earth Sciences* 93, 467–470. doi: 10.1007/s00531-004-0395-6
12. **Mezger, J. E.**, Passchier, C. W. & Régnier, J.-L. (2004): Metastable staurolite–cordierite assemblage of the Bossòst dome: late Variscan decompression and polyphase metamorphism in the Axial Zone of the central Pyrenees. *Comptes Rendus Geoscience* 336, 827–837. doi: 10.1016/j.crte.2003.12.024
13. **Mezger, J. E.** & Passchier, C. W. (2003): Polymetamorphism and ductile deformation of staurolite-cordierite schist of the Bossòst dome: indication for Variscan extension in the Axial Zone of the central Pyrenees. *Geological Magazine* 140, 595–612. doi: 10.1017/S0016756803008112
14. **Mezger, J. E.** (2003): Geology of the Dezadeash Range and adjacent areas of the northern Coast Mountains (115A), southwestern Yukon: Re-examination of a terrane boundary. - In: *Yukon Exploration and Geology 2002* (edited by Emond, D. S. & Lewis, L. L.). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, 149–163.
15. **Mezger, J. E.**, Chacko, T. & Erdmer, P. (2001): Metamorphism along a late Mesozoic accretionary continental margin: a case study from the northern Coast Belt of the North American Cordillera. - *Journal of Metamorphic Geology* 19, 121–138. doi: 10.1046/j.0263-4929.2000.00300.x
16. **Mezger, J. E.**, Creaser, R. A., Erdmer, P. & Johnston, S. T. (2001): A Cretaceous back arc basin in the Coast Belt of the northern Canadian Cordillera: evidence from geochemical and neodymium isotope characteristics of the Klunne metamorphic assemblage, southwest Yukon. *Canadian Journal of Earth Sciences* 38, 91–103. doi: 10.1139/cjes-38-1-91

17. **Mezger, J. E.** (2000): "Alpine-type" ultramafic rocks of the Kluane metamorphic assemblage, southwest Yukon: Oceanic crust fragments of a late Mesozoic back arc basin along the northern Coast Belt.- In: *Yukon Exploration and Geology 1999* (edited by Emond, D. S. & Weston, L. H.). Exploration and Geological Services Division, Indian and Northern Affairs Canada, Whitehorse, 127–138.

## Conference abstracts

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1. Schnapperelle, S., **Mezger, J. E.**, Stipp, M., Hofmann, M., Gärtner, A. & Linnemann, U. (2019): Longlived pulsed magmatic intrusions along the Northern Gondwana margin revealed by Ordovician to Early Permian LA U-Pb geochronology of Central Pyrenean gneiss domes.- GeoMünster 2019, Münster, Germany, September 22-25, 2019, 77.
2. **Mezger, J. E.**, Schnapperelle, S., Stipp, M., Hofmann, M., Gärtner, A. & Linnemann, U. (2019): Where does the heat come from? Continuous Paleozoic magmatic activity along the former northern Gondwana margin recorded in gneiss domes of the Central Pyrenees (western European Variscan belt).- Annual Meeting of the Geological Society of America, Phoenix, Arizona, September 21-25, 2019. Abstracts with Programs 51(5), paper 291-2.
3. **Mezger, J. E.**, Hoffmann, R. & Bergermann, H. (2019): Tectonic origin of sheared belemnites from central Alaska confirmed by fluorescence, cathodoluminescence and trace element mapping.- Annual Meeting of the Geological Society of America, Phoenix, Arizona, September 21-25, 2019. Abstracts with Programs 51(5), paper 45-7.
4. **Mezger, J.E.** (2017): Contractionally deformed belemnites as indicators for thrust faulting in mechanically weak sedimentary layers – an example from the lower Cretaceous of the Talkeetna Mts., central Alaska.- Annual Meeting of the Geological Society of America, Seattle, Washington, October 21-26, 2017. Abstracts with Programs 49(6), paper 385-7.
5. **Mezger, J.E.** (2014): Early and late Carboniferous magmatism in the late Variscides of the Central Pyrenees: solution to a structural contradiction and a magmatic enigma.- Annual Meeting of the Geological Society of America, Vancouver, British Columbia, October 19-22, 2014. Abstracts with Programs 46(6), paper 49-9.
6. **Mezger, J.E.** (2014): The porphyroblasts of the Bossòst Dome, Central Pyrenees: discovering the relationship between metamorphism and deformation.- Annual Meeting of the Geological Society of America, Vancouver, British Columbia, October 19-22, 2014. Abstracts with Programs 46(6), paper 160-11.
7. **Mezger, J.E.** & Régnier, J.-L. (2012): Isobaric Evolution of staurolite-andalusite-cordierite-sillimanite schist in the Central Pyrenees - Early Variscan metamorphism of the Aston-Hospitalet domes.- 14. Symposium "Tektonik, Struktur und Kristallingeologie" (TSK 14), Kiel, March 26 April 1, 2012. TSK 14 Program with Abstracts: 72.
8. **Mezger, J. E.** (2011): The significance of steep regional fault and shear zones for the development of gneiss domes within the Variscan core zone of the Pyrenees: strike-slip or reverse faults? FRAGILE EARTH: Geological Processes from Global to Local Scales and Associated Hazards.- Joint Annual Meeting of the Geologische Vereinigung (GV) and the Geological Society of America (GSA), Munich, September 4-7, 2011, paper 14-6.
9. **Mezger, J. E.** (2010): Cadomian, Ordovician and Visean magmatism in the Axial Zone of the Central Pyrenees revealed by LA-ICP-MS U-Pb zircon dating.- 23. Réunion des Sciences de la Terre, Bordeaux, October 25-29, 2010, Livre des Résumés: 209.
10. **Mezger, J. E.** (2010): Cadomian, Ordovician and Variscan igneous events preserved in gneiss domes of the Central Pyrenean Axial Zone.- 13. Symposium "Tektonik, Struktur und Kristallingeologie" (TSK 13), Frankfurt (Main), April 6 12, 2010. TSK 13 Conference abstracts and field guides: 40.
11. Rölke, C., Schnapperelle, S. & **Mezger, J. E.** (2010): Structural and petrological map of the Mérens fault and shear zone, Aston-Hospitalet domes, Central Pyrenees.- 13. Symposium "Tektonik, Struktur und Kristallingeologie" (TSK 13), Frankfurt (Main), April 6 12, 2010. TSK 13 Conference abstracts and field guides: 49.
12. Schnapperelle, S., Rölke, C. & **Mezger, J. E.** (2010): Structural analyses of the Mérens fault and shear zone, Axial zone, Central Pyrenees.- 13. Symposium "Tektonik, Struktur und Kristallingeologie" (TSK 13), Frankfurt (Main), April 6 12, 2010. TSK 13 Conference abstracts and field guides, 52.
13. **Mezger, J. E.** (2009): Rotational behaviour of complex shaped porphyroblasts during general flow: microstructural investigation of staurolite mica schist of the Bossòst structural metamorphic dome, central Pyrenees.- International Conference and 99th Annual Meeting of the Geologische Vereinigung (GV), Göttingen, Germany, October 5-8, 2009. GV Annual Meeting 2009, 94.
14. **Mezger, J. E.** (2008): Gneiss and structural domes in the Variscan Pyrenees: a limited role for extension? 12. Symposium "Tektonik, Struktur und Kristallingeologie" (TSK 12), Karlsruhe, April 2-4, 2008. Geotectonic Research 95 Special Issue 1: TSK 12 Abstracts: 114-115. (2. winner poster award)
15. **Mezger, J. E.** (2007): Orogen parallel extension: strain partitioning around mantled gneiss domes. - implications

from the Axial Zone of the Pyrenees.- In: Mechanics of Variscan Orogeny: a modern view on orogenic research, September 13-15, 2007, Orléans, France. *Géologie de la France* 2007/2: 136.

16. Felder, M., **Mezger, J. E.**, Harms, F. J. & Wilde, V. (2007): Lake Messel the development of a volcanic basin.- *Limnogeology: tales of an evolving Earth*. 4th Limnogeology Congress Barcelona, Spain, July 11-14, 2007, Programme with abstracts book, 69.
17. Felder, M., **Mezger, J. E.**, Harms, F. J. & Wilde, V. (2006): Lake Messel Origin and fate of a volcanic basin.- In: *Sediment 2006; abstracts and field trips* (June 6-11, 2006, Göttingen, Germany). - *Schriftenreihe der Deutschen Gesellschaft für Geowissenschaften* 45, 66.
18. **Mezger, J. E.**, Passchier, C. W., Piazzolo, S. & ten Grotenhuis, S. (2001): Emplacement of Gneiss Domes: an Integrated Study of Field work (Variscan Pyrenees) and Analogue Modelling. *EUG 11, Strasbourg, France, April 8-12, 2001. Journal of Conference Abstracts* 6, 618.
19. **Mezger, J. E.**, Passchier, C. W., ten Grotenhuis, S. & Piazzolo, S. (2001): Fabric development in gneiss domes and mantling metasedimentary rocks.- In: *Deformation Mechanisms, Rheology & Tectonics meeting*, April 2-4, 2001, Noordwijkerhout, Netherlands. 115.
20. **Mezger, J. E.**, Passchier, C. W., ten Grotenhuis, S. & Piazzolo, S. (2000): Evolution of gneiss domes: evidence from the Variscan Pyrenees (Southern France) and analogue modelling.- *Geological Society of America Annual Meeting, Reno, Nevada, November 9-18, 2000. Abstracts with Programs* 32(7), A98.
21. **Mezger, J. E.** & Passchier, C. W. (2000): Evolution of Gneiss Domes Evidence from the Variscan Pyrenees.- In: 8. *Symposium Tektonik, Strukturgeologie, Kristallingeologie*, October 4-6, 2000, Freiburg i. Br. *Terra Nostra* 2000/5, 38.
22. **Mezger, J. E.** (1999): Mylonites of the southwestern Yukon: a record of Cretaceous accretion onto North America as a result of oblique subduction, and a case against large scale dextral strike slip along the Denali fault.- In: *Terrane Accretion along the Western Cordilleran Margin: Constraints on Timing and Displacement* (edited by Mahoney, J. B. & Haugerud, R. A.). *Penrose Conference, Winthrop, Washington, June 21-27, 1999*, 86-87.
23. **Mezger, J. E.** & Passchier, C. W. (1999): Did the Axial Zone of the Pyrenees act as a large scale dextral shear zone during the main Variscan deformation? First results from microtectonic analysis of mylonitic metasediments.- *EUG 10, Strasbourg, France, March 28 - April 1, 1999. Journal of Conference Abstracts* 4, 90.
24. **Mezger, J. E.** (1998): Microstructural analysis as a tool to retrace terrane accretion: a case study from the Coast Belt of the North American Cordillera. *Tectonic Studies Group Annual Meeting 1998, University of St. Andrews, Scotland, December 14-16, 1998*, p. 57.
25. **Mezger, J. E.**, Erdmer, P. & Mortensen, J. K. (1998): Sinistrale Verschiebung in der nordamerikanischen Kordillere während der Kreide: mikrotektonische Beobachtungen in Myloniten des südwestlichen Yukon Territoriums.- In: 7. *Symposium Tektonik Strukturgeologie Kristallingeologie* (March 25-29, 1998, Freiberg, Germany) (edited by Kroner, U.). *Freiberger Forschungshefte C* 471, 148-150.
26. **Mezger, J. E.** (1997): Metamorphic evolution of the northwestern Coast Belt of the North American Cordillera: constraints from petrographic and geothermobarometric studies of the Kluane metamorphic assemblage in the southwest Yukon.- In: *Cook, F. & Erdmer, P. (Ed.) Slave Northern Cordillera Lithospheric Evolution (SNORCLE) Transect and Cordilleran Tectonics Workshop Meeting* (March 7-9, 1997), University of Calgary, *Lithoprobe Report* 56, 146-154.
27. **Mezger, J. E.** (1996): The Kluane Metamorphic Assemblage, SW Yukon an accretionary wedge of backarc basin affinity.- *Joint Annual Meeting of the Geological Association of Canada-Mineralogical Association of Canada, May 27-29, 1996. Program with Abstracts* 21, A65.
28. **Mezger, J. E.** & Creaser, R. A. (1996): Backarc basin setting of the Kluane Metamorphic Assemblage and sinistral strike slip along a proto Denali fault: Evidence from isotope and microtectonic studies in the SW Yukon.- *Annual Meeting of the Geological Society of America, Denver, October 28-31. Abstracts with Programs* 28(7), A312.
29. **Mezger, J. E.** (1995): The Kluane Metamorphic Assemblage, SW Yukon - first steps towards developing a tectonic model.- *Cordilleran Tectonics Workshop Meeting 1995, Ottawa Carleton Geoscience Centre, February 10-12, 1995*, 11.
30. **Mezger, J. E.** (1994): Structural and metamorphic evolution of the Kluane metamorphic belt, southern Yukon first results.- *Cordilleran Tectonics Workshop 1994, University of Victoria, B.C., January 28-30, 1994*, 19.

## Unpublished theses and mapping reports

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1. **Mezger, J. E.** (1997): Tectonometamorphic evolution of the Kluane metamorphic assemblage, SW Yukon: evidence for late Cretaceous eastward subduction of oceanic crust underneath North America.- Unpublished PhD. thesis, University of Alberta, Edmonton, Alberta, Kanada, 306 p.
2. **Mezger, J. E.** (1991): Geophysikalische und struktureologische Untersuchungen einer mutmaßlichen Überschiebungszone in hochmetamorphem Gestein, Südost Sri Lanka. [Geophysical and structural studies of a postulated thrust zone in high-grade metamorphic assemblages, southeast Sri Lanka] Unpublished diploma thesis, Johannes Gutenberg Universität Mainz, Germany, 94 p.
3. **Mezger, J. E.** (1989): Geologische Kartierung der Region Catalina El Roble im nördlichen Tempisque Forearc Becken, Costa Rica. [Geological map of the Catalina-El Roble region, northern Tempisque forearc basin, Costa Rica] Unpublished diploma mapping report, Johannes Gutenberg University Mainz, Germany, 38 p.

## Book Reviews

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1. "Spessart. Sammlung Geologischer Führer Band 106" by M. Okrusch, G. Geyer & J. Lorenz., Gebr. Bornträger, 2011.- Der Aufschluss 64/3, May/June 2013, 167-168.
2. "Mainzer Becken. Sammlung Geologischer Führer Band 79" by P. Schäfer., Gebr. Bornträger, 2012.- Der Aufschluss 64/3, May/June 2013, p. 168.
3. "Entlang der Oberen Donau. Vom Schwarzwald durch die Schwäbische Schweiz bis Ulm. Wanderungen in die Erdgeschichte 29" by R.K.F. Meyer & H. Schmidt-Kaler, Verlag Dr. Friedrich Pfeil, 2011.- Der Aufschluss 63/6, November/December 2012, p. 308.
4. "Harz, östlicher Teil mit Kyffhäuser Kristallin. Sammlung Geologischer Führer Band 104" by H. J. Franzke & M. Schwab., Gebr. Bornträger, 2011.- Der Aufschluss 63/4, Juli/August 2012, p. 224.
5. "Deutschlands Süden vom Erdmittelalter zur Gegenwart" by J. Eberle, B. Eitel, W.D. Blümel & Wittmann, P., Spektrum Akademischer Verlag, 2010.- Der Aufschluss 63/1, January/February 2012, p. 36.
6. "Das Eiszeitalter" by J. Ehlers, Spektrum Akademischer Verlag, 2011.- Der Aufschluss 63/1, January/February 2012, p. 42.
7. "Geological Evolution of the Canary Islands" by Hans-Ulrich Schmincke & Mari Sumita, Görres-Verlag Koblenz, 2010.- Der Aufschluss 62/6, November/December 2011, p. 306.
8. "Gesteinsbestimmung im Gelände" by Roland Vinx, Spektrum Akademischer Verlag, 2011.- Der Aufschluss 62/6, November/December 2011, 331-332.
9. "Geologie von Baden-Württemberg" by Geyer, M., Nitsch, E. & Simon, T., Schweizerbart Science Publishers, 2011.- Der Aufschluss 62/3, May/June 2011, 149-150.
10. "Atlas of Mylonites - and related microstructures" by R. A.J. Trouw, C. W. Passchier & D. J. Wiersma, Springer Verlag, 2010.- Der Aufschluss 62/3, May/June 2011, p. 174.
11. "Vulkane der Eifel - Aufbau, Entstehung und heutige Bedeutung" by Hans-Ulrich Schmincke, Spektrum Akademischer Verlag, 2010.- Der Aufschluss 62/3, May/June 2011, p. 192.
12. "Principles of Metamorphic Petrology" by R.H. Vernon & G.L. Clarke, Cambridge University Press 2008.- Der Aufschluss 61/2, March/April 2010, p. 128.