

Accepted Manuscript

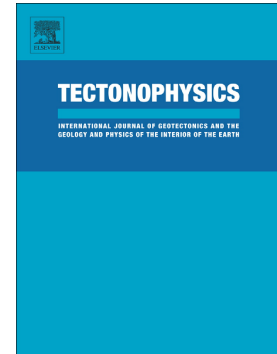
Metamorphic brines and no surficial fluids trapped in the detachment footwall of a Metamorphic Core Complex (Nevado-Filábride units, Betics, Spain)

Vanessa Dyja-Person, Alexandre Tarantola, Antonin Richard, Christian Hibsich, Luc Siebenaller, Marie-Christine Boiron, Michel Cathelineau, Philippe Boulvais

PII: S0040-1951(18)30062-3
DOI: <https://doi.org/10.1016/j.tecto.2018.02.001>
Reference: TECTO 127773
To appear in: *Tectonophysics*
Received date: 24 February 2017
Revised date: 29 January 2018
Accepted date: 1 February 2018

Please cite this article as: Vanessa Dyja-Person, Alexandre Tarantola, Antonin Richard, Christian Hibsich, Luc Siebenaller, Marie-Christine Boiron, Michel Cathelineau, Philippe Boulvais, Metamorphic brines and no surficial fluids trapped in the detachment footwall of a Metamorphic Core Complex (Nevado-Filábride units, Betics, Spain). The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Tecto(2017), <https://doi.org/10.1016/j.tecto.2018.02.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



**Metamorphic brines and no surficial fluids trapped in the detachment footwall of a
Metamorphic Core Complex (Nevado-Filábride units, Betics, Spain)**

Vanessa Dyja-Person ¹, Alexandre Tarantola ¹, Antonin Richard ¹, Christian Hibsich ¹, Luc Siebenaller ², Marie-Christine Boiron ¹, Michel Cathelineau ¹ and Philippe Boulvais ³

¹GeoRessources, Université de Lorraine, CNRS, CREGU, UMR 7359, Vandœuvre-lès-Nancy, F-54506, France

²Geosciences Environnement Toulouse (UPS GET), IRD, CNRS, Université de Toulouse, 14, av. Edouard Belin, 31400 Toulouse, France

³Université de Rennes 1, Géosciences Rennes - UMR CNRS 6118, OSUR, 35042 Rennes Cedex, France

Abstract

The ductile-brittle transition zone in extensional regimes can play the role of a hydrogeological barrier. Quartz veins developed within an orthogneiss body located in the detachment footwall of a Metamorphic Core Complex (MCC) in the Nevado-Filábride units (Betics, Spain). The detachment footwall is composed mainly of gneisses, schists and metacarbonates from the Bédar-Macael sub-unit. Schist and metacarbonate bodies show evidence of ductile deformation at the time the gneiss was already undergoing brittle deformation and vein opening during exhumation. The vein system provides the opportunity to investigate the origin, composition and *PVTX* conditions of the fluids that circulated in the detachment footwall while the footwall units were crossing the ductile-brittle transition.

Download English Version:

<https://daneshyari.com/en/article/8908746>

Download Persian Version:

<https://daneshyari.com/article/8908746>

[Daneshyari.com](https://daneshyari.com)