

***Interactive comment on “Diagenetic changes in  
*Concholepas concholepas* shells (Gastropoda,  
Muricidae) in the hyper-arid conditions of Northern  
Chile – implications for  
palaeoenvironmental reconstructions” by  
N. Guzman et al.***

**Anonymous Referee #1**

Received and published: 7 February 2008

This paper makes an important contribution to the field of carbonate diagenesis. This field is important because of the huge interest in carbonate biominerals as a source of proxies from which we determine palaeoclimates. Improving such understanding is not only important from the point of view of palaeontology but also in view of current climate change and how we can interpret past rates of change and thus inform predictions of future change. It is often the case that one single test is used to identify diagenetic

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



alteration. A negative result in such a test is taken to indicate that the carbonate has not been altered and is therefore a reliable source of environmental information. This work warns against such an approach and the warning is supported by hard evidence. The authors use a multi-pronged analytical approach to assess diagenesis in their samples that they can justifiably use in palaeoenvironmental reconstructions.

---

Interactive comment on Biogeosciences Discuss., 5, 501, 2008.

**BGD**

5, S34–S35, 2008

---

Interactive  
Comment

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

