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Redox conditions and authigenic mineralization related to cold seeps in central Guaymas Basin, Gulf of California

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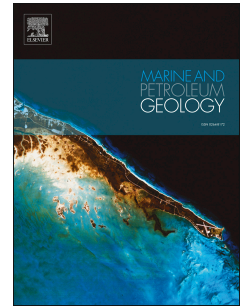
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1 **Redox conditions and authigenic mineralization related to cold seeps in central Guaymas**  
2 **Basin, Gulf of California**

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21  
22 **Abstract**

23 Authigenic carbonate crusts, surface muds and bivalve shell fragments have been recovered from  
24 inactive and active recently discovered cold seep sites in central Guaymas Basin.. In this study, for  
25 first time, redox conditions and fluid sources involved in mineral precipitation were investigated by  
26 analyzing the mineralogy and textures of surface samples, along with skeletal contents, and C, O  
27 and S isotopes variations. The  $\delta^{13}\text{C}$  values of aragonitic bivalve shells and non-skeletal carbonate

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