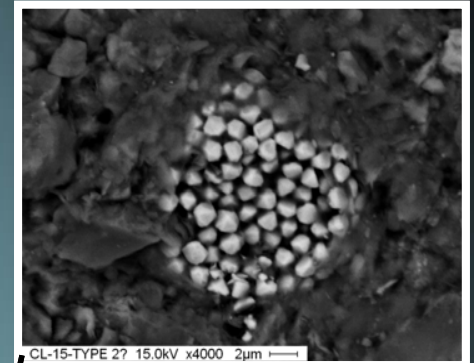


Testing the extent of anoxia in Late Devonian aged Black Shales; a multi proxy approach

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During the Late Devonian there was one of the largest mass extinction events in the history of life. Despite its significance, the kill mechanism for this event is poorly constrained. Anoxia, or the absence of oxygen, is thought to have played an important role in this event and black shales of New York state provide an opportunity to investigate this. Combined methodologies utilizing the biological signal preserved as trace and body fossils, as well as the geochemical signal as trace metal concentrations and pyrite framboid distributions allow for details of relative oxygen levels to be inferred from these units. Initial results suggest that the relative bottom water oxygen levels fluctuate at high frequency with no evidence for persistent anoxic conditions.



Pyrite framboid from low oxygen interval

