

Time series analysis of the lamination of the stromatolites in the Hearne Formation, Canada(1.9Ga)

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In order to decode the rhythms and events from the laminations of stromatolites in Hearne Formation, Canada(1.9Ga), we made the chemical profiles of them with SXAM and calculated the power spectrum by means of FFT. The spectra of the profiles of Ca, Si, K and Thickness of lamina include two common frequency peaks, which correspond to approximately 6 and 9 layer cycles. If we assume that the layers deposited annually, this results may indicate that periodic environmental variation of several years were recoded in the laminae of the stromatolites.