

Chemical and mineralogical descriptions by XRF mapping of banded iron formation from Slave province, NW Canada

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Earth's surface system is continuously fluctuated by the periodic forcing (tidal cycle, solar cycle, Milankovitch cycle and other cycles) and the eventual forcing (meteorite impact, volcanic activity, seismic activity and other events). The record of the time variation of Earth's surface system is preserved as the striped pattern into laminated sediments. The past astronomical periods, various events and the property of Earth's surface system are investigated by decoding the lamination of sediments as an inverse problem. We develop the methodology for describing and decoding the lamination of sedimentary rocks on Precambrian time. We report the result of the XRF count and mineralogical profiles Archean banded iron formation. The spatial resolution of their profiles is 0.1mm/pixel.