

Objective Domain Boundaries Detection in New Caledonian Nickel Laterite from Spectra Using Quadrant Scan

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Relevance to the Centre

Manual interpretation of multivariate data can be slow and challenging; therefore, automation of any of the steps in the interpretation process is valuable. Hyperspectral analysis of drill chips provides a relatively inexpensive method of collecting very detailed information rapidly and consistently. However, the challenge of such data is the high dimensionality of the data's variables in comparison to the number of samples. Hyperspectral data is usually processed to produce mineral abundances generally involving a range of assumptions. This paper presents the results of testing a new fast and objective methodology to identify the lithological boundaries from high dimensional hyperspectral data. This method applies a quadrant scan analysis to recurrence plots.

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