

## Abstract

Soil mineralogy is a principal determinant of many soil functional properties. Africa soil mineralogy has not been widely researched, especially as a predictive tool. Recent developments in instrument designs and capabilities including the launch of benchtop X-ray Diffractometers(XRD) have widened the possible application areas for high-throughput X-ray diffraction (XRD) as a powerful complementary tool for soil screening. This study was conducted to develop a protocol for high precision and rapid throughput mineralogical analysis of Africa soils using a benchtop diffractomet