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Title: Analysis of soil samples from Saudi Arabia using neutron activation spectrometry

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Abstract: Local agricultural soil samples were studied for elemental analysis using slow neutron activation spectrometry, at the KFUPM Ion Accelerator. Calibration curves were established for the elements present in these samples using certified standards of similar matrix. These curves were used to determine the absolute concentrations of the elements found: K, Mn, V, Al, Na, Cl, Ba, Sr; and Mg. The concentrations of these elements varied from low ppm to several wt.%. Minimum detection limits for these elements were determined. Results are discussed in terms of composition of local geological formation and the elements found in fertilizer samples; and are compared with the mineralogical data measured by other researchers using XRD analysis for soil samples from the same area.