Geophysical Research Abstracts, Vol. 8, 10180, 2006
SRef-ID: 1607-7962/gra/EGU06-A-10180

Distribution of Ba, Cr, Sr and V in Torrelles (Catalonia, Spain) Soil profiles.

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The distribution of Ba, Cr, Sr and V in 29 Torrelles soil profiles (135 soil samples) were investigated. The soils were classified as Alfisols, Entisols, Inceptisols, Mollisols and Ultisols representing major mineral soils in Torrelles. The median concentrations of Ba, Cr, Sr and V in Torrelles Entisols were 213.4, 26.1, 46.4 and 33.1 mg Kg^{-1}, respectively. The median concentrations of Ba, Cr, Sr and V in Torrelles Inceptisols were 186.2, 28.4, 77.6 and 32.6 mg Kg^{-1}, respectively. The median concentrations of Ba, Cr, Sr and V in Torrelles Alfisols were 197.1, 25.7, 34.2 and 42.1 mg Kg^{-1}, respectively. The median concentrations of Ba, Cr, Sr and V in Torrelles Mollisols were 78.6, 25.1, 129.8 and 20.4 mg Kg^{-1}, respectively. The median concentrations of Ba, Cr, Sr and V in Torrelles Ultisols were 58.4, 18.0, 35.3 and 28.5 mg Kg^{-1}, respectively. Cr and V were correlated with clay content (r = 0.47, 0.42). Trace element distribution in soils, therefore reflected parent-material and pedogenic factors determining clay content variations between and with soil profiles. Generally metal contents in soils decreased in the order Inceptisols $>$ Entisols $>$ Alfisols $>$ Mollisols $>$ Ultisols.