

## **Characterization of soils from Central and South Portugal for forensic purposes**

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A database of soils for forensic purposes is being developed in collaboration with the Portuguese Scientific Police Laboratory. For this purpose 66 soil samples from Central and South of Portugal have been collected and analyzed by a combination of geoforensic techniques and three properties were investigated using portable equipments: the colour determined by a spectrophotometer, magnetic susceptibility determined by a susceptibility meter and elemental composition determined by an X-ray fluorescence analyser. A hierarchical cluster analysis was applied to ascertain the capacity of the different properties to allow the discrimination between samples from the different regions.

The combination of these techniques enable discrimination of samples collected in some of the regions. The results will be added to the Portuguese forensic soils database and it is expected that this database will be useful in the future, providing soil forensic intelligence to crime investigations.

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