

**DETECTION OF TNT-CONTAMINATION IN SOIL SAMPLES USING
SPME AND GC/MS**

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ABSTRACT

Soil-contamination from toxic explosive residues at military bases throughout the world, is a major environmental concern. A strong candidate for TNT soil-contamination within Greece, is the military base/airport of Maleme in Crete. While soil sampling was in progress new routes of trace analysis for explosives in soil were explored, allowing direct analysis of the complex soil matrices. Solid-phase micro-extraction (SPME) was used to selectively pre-concentrate analytes prior to GC/MS. The developed SPME protocol was found ideal for rapid screening of explosives in soil, in concentrations well below the certified reported and detection limits.