# Arsenic speciation and sequential extraction studies

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Shallow groundwater speciation studies were carried out using a field separation method in two regions of Hungary. Sequential extractions using the Tessier *et al*. [1] method was applied to evaluate the arsenic content distribution in each fractions. The speciation studies showed a redox environment which can promote remobilization under reductive conditions at almost each site. The sequential extractions revealed that a relatively high proportion of the arsenic could be found in the very stable residual fraction, which was also detected in other regions and by other methods (Routh and Hjelmquist [2]). At these sites the arsenic content of the groundwater was lower than at sites where the arsenic is in the more easily leachable form.

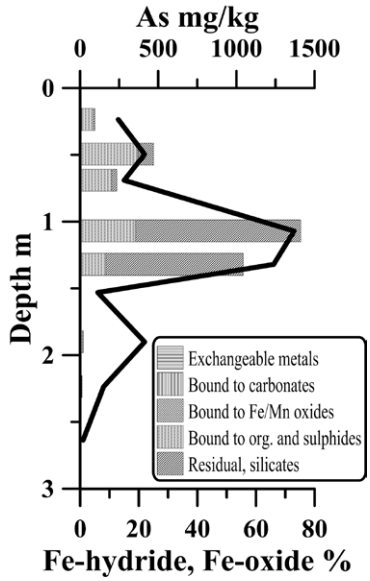


**Figure 1:** Distribution of arsenic in the extracted fractions versus depth**.**

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[1] Tessier *et al*. (1979) *An. Chem*. **51**(7), 844-851. [2] Routh & Hjelmquist (2011) *Appl. Geoch*. **26**, 505–515.