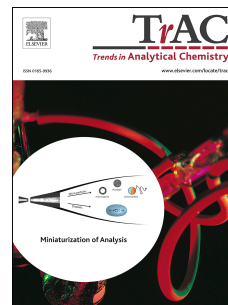


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Recent trends in microextraction techniques used in determination of arsenic species

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## Recent trends in microextraction techniques used in determination of arsenic species

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### ABSTRACT

The determination of arsenic species is of great importance for human health, but it is still a challenge for analytical chemistry. Complete characterization of arsenic compounds is necessary due to different toxicological effects demonstrated by particular arsenic species. Modern analytical procedures include mainly usage of microextraction techniques which tend to reduce solvent consumption, e.g. liquid phase microextraction (LPME), or employ solvent free methods, e.g. solid phase microextraction (SPME). SPME development focuses on synthesis of new sorbents and application of on-line sample preparation while in LPME usage of new solvents is studied. Among these solvents mainly ionic liquids were applied in LPME, mostly in different dispersive liquid-liquid microextraction procedures but also in hollow fibre liquid phase microextraction. As the ionic liquids are not always environmentally friendly other solvents were also proposed but only limited number of papers were devoted to usage of deep eutectic solvents or surfactants.

**Keywords:** arsenic species; speciation analysis; preconcentration; solid phase microextraction; liquid phase microextraction

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