

Microfluidic supported liquid membrane extraction

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Source: ANALYTICA CHIMICA ACTA **Volume:** 543 **Issue:** 1-2 **Pages:** 92-98 **DOI:**

10.1016/j.aca.2005.04.033 **Published:** JUL 6 2005

Abstract:

Miniature, microfluidic devices have been designed and fabricated for the enrichment of haloacetic acids in water. The analytical approach is based on supported liquid membrane (SLM) extraction followed by direct HPLC-UV detection without any derivatization. Channel dimensions and the flow rates affected enrichment factors and extraction efficiencies. Enrichment factors as high as 54 were obtained on a 2 cm x 2 cm extraction module. Large linearity ranges with good linearity, high precisions and detection limit as low as 2 ng/mL were obtained. (c) 2005 Elsevier B.V. All rights reserved.

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