

## عنوان مقاله:

Separation and Determination of Doxepin in water samples by Air-agitated Dispersive Liquid-liquid microextraction method prior to UV-Vis Spectrophotometer

## محل انتشار:

سومین کنفرانس بین المللی دستاوردهای نوین پژوهشی در شیمی و مهندسی شیمی (سال: 1395)

تعداد صفحات اصل مقاله: 8

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## خلاصه مقاله:

the present research, a new and fast microextraction procedure which is a combination of air agitated dispersive liquid-liquid microextraction using low density organic solvent and directly suspended droplet microextraction method was used for the extraction of trace amounts of doxepin from real samples prior to UV-Vis spectrophotometer. The parameters influencing the extraction efficiencies including kind of the extracting solvent, the volume of the aqueous sample solution (donor phase), the volume of extraction solvent (acceptor phase), the number of air injected, the effects of pH and salt were optimized. Under the optimal conditions, the obtained enrichment factor is above 80. By plotting peak areas of the standard solutions versus various concentrations of the analyte, calibration curve is obtained which show that the linear ranges of 0.001-2  $\mu\text{g mL}^{-1}$  with correlation coefficient ( $r$ ) of 0.994. The precision of the method (RSD %,  $n=5$ ) was calculated less than 4.5 and the limit of detection (LOD) was 0.003  $\mu\text{g mL}^{-1}$ . The proposed microextraction method was used for the extraction of the analyte from environmental water samples and the calculated relative recoveries were all above than % 85

## کلمات کلیدی:

Two liquid-phase microextraction (LLME), Doxepin, UV-Vis spectrophotometer, Water analysis

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/530935>

