

عنوان مقاله:

Air-assisted liquid-liquid micro-extraction using floating organic droplet solidification for determination of Atorvastatin by UV-vis

محل انتشار:

پنجمین کنفرانس ملی پژوهش های نوین در شیمی و مهندسی شیمی (سال: 1397)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Seyyed Hamid Ahmadi - *Chemistry and Chemical Engineering Research Center of Iran, Tehran ۱۴۳۳۵-۱۸۶, Iran*

Hakimeh Taheri, - *Chemistry and Chemical Engineering Research Center of Iran, Tehran ۱۴۳۳۵-۱۸۶, Iran*

Mohammad Hassan Amini - *Chemistry and Chemical Engineering Research Center of Iran, Tehran ۱۴۳۳۵-۱۸۶, Iran*

خلاصه مقاله:

An air-assisted liquid-liquid micro-extraction by applying the solidification of a floating organic droplet method (AALLME-SFOD) was developed for extraction of atorvastatin from aqueous and serum samples and UV spectrophotometry was used for its detection. In the present study, 7.0 mL water sample was extracted by 100 μL of 1-dodecanol and some parameters that can affect extraction such as type and volume of extraction solvent, the effect of salt, pH, and the effect of centrifuging time and rate were optimized. Under optimized experimental conditions, the calibration curve was found to be linear in the range of 0.3–5 $\mu\text{g mL}^{-1}$, and the correlation coefficient and the limits of detection were 0.9964 and 0.09 $\mu\text{g/mL}$, respectively. The accuracy of the method in terms of average recovery of the compound in water samples was about 90%.

کلمات کلیدی:

Atorvastatin, Preconcentration, Dispersive Liquid-Liquid Micro-extraction

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