

## عنوان مقاله:

Application of choline chloride:4-boromo phenol deep eutectic solvent-based dispersive liquid-liquid microextraction for cobalt sensitive determination and preconcentration in water

## محل انتشار:

اولین کنگره بین المللی شیمی و نانو شیمی از پژوهش تا فناوری (سال: 1397)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

This work presents a fast, feasible and sensitive method for preconcentration and separation of cobalt in various real samples through use of deep eutectic solvent-based dispersive liquid-liquid microextraction (DES-DLLME); in which deep eutectic solvent, methanol and 1-(2-pyridylazo)-2-naphthole (PAN) were employed as extraction solvent, dispersive solvent and complexing agent, respectively. Co concentration was measured by flame atomic absorption spectrometer. Effective parameters which may influence the extraction efficiencies (like type and volume of dispersive and extraction solvent, pH, PAN concentration, and salt concentration) were examined and optimal values were determined. Use of optimal conditions resulted in the limit of detection equal to  $1.5 \mu\text{g L}^{-1}$  with a preconcentration factor of 40. RSD value after measuring  $20.0 \mu\text{g L}^{-1}$  of cobalt for 10 times, resulted in value of 3.0 %. The method accuracy and applicability were assessed through evaluation of Co content in water certified reference materials and different water specimen.

## کلمات کلیدی:

Deep eutectic solvent based dispersive liquid-liquid microextraction, 1-(2-pyridylazo)-2-naphthole, cobalt, water samples

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/814444>

