Application of a novel poly(SMAm)-Tris-Fe3O4 nanocomposite for selective extraction and enrichment of Cu(I) /Cu(II) from beer, soft drinks and wine samples, and speciation analysis by micro-volume UV-Vis spectrophotometry

By: Zengin, HB (Zengin, H. B.) [1]; Gurkan, R (Gurkan, R.) [1]

TALANTA

6.057 5.386

JCR Category	Category Rank	Category Quartile
CHEMISTRY, ANALYTICAL *in SCIE edition*	12/87	Q1

Source: Journal Citation Reports ™ 2020

d and selectively used in pH-controlled sample matrices where extraction is ic composite material functionalized ized in detail by ATR-FT-IR, H-1 NMR, encing extraction efficiency such as t fixed concentrations including 47 nm by micro-volume UV-vis 150 mu g L-1 for Cu(II) and Cu(I) with nalyte, were obtained from a pre- n of Cu(I), Cu(II), and total Cu in the pre-treated and diluted beverage samples before and after pre-oxidation of Cu(I) to Cu(II) due to be more sensitive of extraction process to Cu(II) at pH 6.0. The results were also compared with those obtained by FAAS analysis to ensure the reliability of the results. It was observed that there was a statistically good agreement between the results of both methods.

Keywords

Author Keywords: Copper speciation; Nanocomposite; Poly(SMAm) copolymer; Tris; UA-CPE; Micro-volume UV-vis spectrophotometry

Keywords Plus: SOLID-PHASE EXTRACTION; CLOUD-POINT-EXTRACTION; TRACE AMOUNTS; METAL-IONS; COPPER II ; PRECONCENTRATION; WATER; LEAD; STABILIZATION; SPECTROMETRY

Author Information

Corresponding Address: Gurkan, R.(corresponding author)

Univ Cumhuriyet, Fac Sci, Dept Chem, TR-58140 Sivas, Turkey

Affiliation

Cumhuriyet University

Addresses:

1 Univ Cumhuriyet, Fac Sci, Dept Chem, TR-58140 Sivas, Turkey

Affiliation

Cumhuriyet University

E-mail Addresses: rgurkan@cumhuriyet.edu.tr

Categories/Classification

Research Areas: Chemistry

Funding

Funding agency	Grant number
Funding agency	Grant number

Cited References

50

View Related Records

You may also like...

Meeravali, NN; Kumar, SJ; Jiang, SJ;
An acid induced mixed-micelle mediated cloud point extraction for the separation and pre-concentration of platinum from road dust and determination by inductively coupled plasma mass spectrometry
ANALYTICAL METHODS

Constantinou, E; Pashalidis, I;
Uranium determination in water samples by liquid scintillation counting after cloud point extraction
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY

Santaladchaiyakit, Y; Srijaranai, S;
A simplified ultrasound-assisted cloud-point extraction method coupled with high performance liquid chromatography for residue analysis of benzimidazole anthelmintics in water and milk samples
ANALYTICAL METHODS

Ezoddin, M; Shemirani, F; Khani, R;
Application of mixed-micelle cloud point extraction for speciation analysis of chromium in water samples by electrothermal atomic absorption spectrometry
DESALINATION

Hashemi, H; Khajeh, M; Kaykhaii, M;
Molecularly imprinted stir bar sorptive

32

Sivas Cumhuriyet University, Turkey	F-604

Funding Table

View funding text

+ See more data fields

Journal information

TALANTA

ISSN: 0039-9140
eISSN: 1873-3573
Current Publisher: ELSEVIER, RADARWEG 29, 1043 NX AMSTERDAM, NETHERLANDS
Research Areas: Chemistry
Web of Science Categories: Chemistry, Analytical

6.057
Journal Impact Factor ™ (2020)

Molecularly imprinted stir bar sorptive extraction coupled with atomic absorption spectrometry for trace analysis of copper in drinking water samples
ANALYTICAL METHODS

See all

Most Recently Cited by

Abdulwahab, S; Ali, EE; Azab, SM; et al.
Mathematically assisted UV-spectrophotometry as a greener alternative to HPLC-UV for quality control analysis of free-drug combinations
MICROCHEMICAL JOURNAL

Fabjanowicz, M; Plotka-Wasylka, J;
Metals and metal-binding ligands in wine: Analytical challenges in identification.
TRENDS IN FOOD SCIENCE & TECHNOLOGY

See all

Use in Web of Science

Web of Science Usage Count

3	21
Last 180 Days	Since 2013

Learn more

32

This record is from:

Web of Science Core Collection

- Science Citation Index Expanded (SCI-EXPANDED)

Suggest a correction

If you would like to improve the quality of the data in this record, please Suggest a correction

50 Cited References

Showing 30 of 50 View as set of results

(from Web of Science Core Collection)