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Separation of manganese(II), iron(III), copper(II) and nickel(II) ions on the strongly acidic cation exchangers for subsequent determination of the water-soluble inorganic forms of arsenic by stripping voltammetry

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Abstract

The possibility of using the method of ion exchange to separate the ions Mn(II), Fe(III), Cu(II) and Ni(II) of arsenite and arsenate ions with the cartridge *IC-H Hypersep* (Switzerland) and sulfonated cationite resin (*КУ-2-8*, Russia), *Pirolite C100* (UK). The conditions to remove interfering cations by ion exchange procedure during As speciation in water samples by stripping voltammetry (SV) method were chosen. It was found that the proposed method of water preparation with domestic cartridges based on КУ-2-8 resin may be used. The developed method of analysis used to determine the inorganic forms of arsenic in drinking water. The validity of the analysis was proved by standard addition method.